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Learning Leadership: An Investigation of Principals' Attitudes toward Teachers in Creating the Conditions Conducive for Learning in School-Based Staff Development

Arnold N. Stricker, Jr.
University of Missouri-St. Louis

LEARNING LEADERSHIP: AN INVESTIGATION OF PRINCIPALS' ATTITUDES TOWARD TEACHERS IN CREATING THE CONDITIONS CONDUCIVE FOR LEARNING IN SCHOOL-BASED STAFF DEVELOPMENT

by

ARNOLD N. STRICKER, JR.
M.Ed., University of Missouri - St. Louis, 1989
M.M., University of Kansas, 1980
B.M.E., University of Kansas 1979

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Advisory Committee

John A. Henschke, Ed.D.
Chairperson
Mary K. Cooper, Ph.D.
Committee Member
Connie K. Koch, Ph.D.
Committee Member
E. Paulette Isaac-Savage, Ed.D.
Committee Member
Charles D. Schmitz, Ph.D.
Committee Member

UNIVERSITY OF MISSOURI-ST. LOUIS

GRADUATE SCHOOL

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Abstract

The purpose of this research was to determine the attitudes of principals toward teachers as learners by answering the following question: Do principals understand adult learning and do they have the competencies to create the conditions for learning in school-based staff development? Three research questions and a hypothesis undergirded this overall question and supported the investigation of this question.

Participants in the study included principals and teachers in grades PK-12. Participants completed a demographic questionnaire, the *Instructional Perspectives Inventory (IPI)*, and the *Respect for Partner Scale (RPS)* both revised for principals and teachers. Results were analyzed using MANOVA, ANOVA, and t-tests to determine the extent of relationships between variables within and between groups. Results of the study are limited to the district where the data was obtained.

Results indicate there is a relationship between the attitudes of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development. This relationship does not contribute to creating the conditions conducive for learning in school-based staff development. A gap in the relationship exists in the areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners. This gap is defined through a comparison of responses which indicate a contradiction between what principals state they do and what teachers report principals do to create the conditions conducive for learning in school-based staff development.

Principals and teachers in this district would benefit by a better understanding and implementation of andragogy which is generally not a part of coursework for principal or

teacher certification. Recommendations include ongoing discussion sessions be held for principals on how to support the growth and development of teachers. Sessions should: (a) discuss the role of experience and motivation in adult learning; (b) include how to help teachers gain an understanding of and implement self-directed learning, so teachers can become actively involved in and take responsibility for their own learning; and, (c) help principals learn that questions of how, what, when, and why teachers learn, also define teachers as individuals as well.

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CHAPTER I

Introduction

Principals have an unprecedented role in creating the conditions for learning in their building not only for students but for teachers as well. They are the major role player in the establishment and development of the school climate for learning (DuFour, 1991) and must create the conditions in which adults not only can learn, but also want to learn (Killion, 1999; Kronley & Handley, 2001). Staff development activities provide a large portion of teacher learning in a school setting and these activities can be planned to support adults in addition to changing attitudes and behaviors of current practice (Levine, 1989). As school-based staff development becomes more effective, a learning community develops that nurtures not only student learning but "continuous reflection and analysis by adults" (Kronley & Handley, 2001, p. 19).

Background

While the role of principals may change daily based upon a variety of situations or influences that are internal or external to the school setting, the function of principals remains the same that being the learning leader of the building. This description is different from the common view of principals as the instructional leader. Instruction defines the process of imparting or delivering knowledge while learning defines the process of receiving knowledge or skills (American Heritage Dictionary of the English Language, 2000). Based upon these definitions, the focus of the instructional leader is on how content is delivered and the focus of the learning leader is on how content is received. Few may argue the value of the instructional or pedagogical approach; however, the prolific writing and research on topics such as multiple intelligences,

mastery learning, learning styles, cooperative learning, and professional learning communities argue for a learning approach. Thus, principals as the learning leader must champion all aspects of learning in the school setting including the learning of staff. Unfortunately, little time is devoted to the role of principals in developing the staff to their fullest potential as adult learners.

There are several reasons why principals are not able to fulfill the learning leadership role. One reason is they may be preoccupied with managerial tasks such as student discipline, teacher evaluations, building upkeep, staff evaluations, and parent involvement activities. These tasks, though important, have little to do with learning and often consume a great deal of the time of principals (Catholic Principals' Council of Ontario, 2004; National Staff Development Council, 2000).

A second reason may be that principals have never experienced the role of learning leader for themselves and are operating under the influence of how a principal previously led them when they were a teacher or how they believe a principal should lead such as an instructional leader (Short, Girogis, & Pritchard, 1993). A third reason may be that principals often delegate the responsibility for learning vis-à-vis professional development to a district coordinator, staff member, or team of staff who are able to provide knowledge and skills, but lack the position as supervisor to connect and pull the entire process together (Glickman, Gordon & Ross-Gordon, 1995). While someone else is "leading" the staff development in the building, principals are not present because of the "managerial" responsibilities they believe they must complete. At award-winning schools, principals view staff development as "one of the most important elements of their jobs" (Richardson, 1998, p. 55).

A final reason is that principals lack the prerequisite skills or competencies in adult learning to move adults to a place of continuous growth. The previous reasons all indicate some lack of skills or perceived lack of skills or understanding of being the learning leader in the school specific to the learning needs of adults through staff development. "Part and parcel of the design and implementation of staff development programs is an understanding of principles of adult development and the conditions that enhance adult learning" (Blase & Blase, 1999, p. 15).

Current theories on school leadership and the role of principals in relation to adult learning suggest four possible ways in which principals can support adult learning and development. "Principals can: create a developmentally-oriented school culture; build interpersonal relationships with teachers; emphasize teacher learning; and/or focus on teachers' personal growth" (Drago-Severson, 2000, p. 6).

Literature in staff development and the leadership of principals (Bents & Howey, 1981; Dalellew & Martinez, 1988; Davis, 1974; DuFour, 1991; Glickman, Gordon, & Ross-Gordon, 1995; Griffin, 1983; Knowles, 1996; Loucks-Horsley, Harding, Arbuckle, Murray, Dubea & Williams, 1987; Smith, 1990) discusses adult learning, yet an assumption is made that adult learning and conditions which enhance adult learning are clearly understood by the reader. These authors acknowledge the need to use adult learning and andragogy yet the techniques of adult learning are often limited to adult developmental stages, better presentations, collegial discussions, partnering with a university, or a cookbook approach (Champion, 2000; DuFour, 2001; Killion, 1988; Morris, 1995; Sharp, 1988; Smith, 1990). Rarely are andragogy, self-directed learning, or the importance of creating the conditions for learning discussed in depth to provide

definitive guidance for principals for adult learners. One of the difficulties with the literature is the implication that principals know what adult learning skills are and how to effectively use them.

Lack of understanding of adult learning and the conditions which enhance adult learning can be seen in *A Self-Assessment Guide for Staff Developers* (Sousa, 1991). The self-assessment guide lists a set of competencies developed by the National Staff Development Council in 1989 measuring the knowledge, skills and attitudes needed to lead and manage programs of staff development. Four main areas include: (a) program and curriculum skills, (b) consultation and facilitation skills, (c) management skills, and (d) personal skills. These four areas are further broken down into several skill categories of which one is adult development and learning theory. Of the 105 items on the assessment, only three were directly specific to adult development and learning theory and two directly specific to leadership. No items specifically address the conditions for learning; however, 28 are related to creating the conditions for learning.

Roland Barth, in an interview with the National Staff Development Council (NSDC, 2000), stated:

> people think principals know how to do it all. All too many principals fall into the trap of playing the all-knowing one. A big step is recognition by principals that they don't know how to do something and that they want to learn to do it. That's huge. It's a risky statement to make. (p. 5)

Additional research in staff development and adult learning must "address how teachers and administrators themselves can gain knowledge, critique, reflect and transform themselves, and eventually take their place among others in bringing about educational

change and reform" (Short, Girogis & Pritchard, 1993, p. 2).

Statement of the Problem

Adult learning or the conditions to enhance adult learning have been discussed in the literature of staff development and principals (Butler, 1989; Drago-Severson, 2000; Killion, 1988; Levine, 1989; McPherson & Lorenz, 1985; Richardson & Prickett, 1994; Terehoff, 2002; Wood, Thompson & Russell, 1981.) There has been little if anything written about what principals know or do not know about adult learning, and little if any follow-up of what principals perceive of as adult learning principles. Therein lies part of the problem. Many school-based staff development activities lack the effectiveness of helping teachers improve their abilities to perform their professional responsibilities to improve student learning because principals lack the skills of adult learning (Richardson & Prickett, 1994; Wood, Thompson & Russell, 1981). Do principals understand adult learning and do they have the competencies to create the conditions for learning in school-based staff development?

Research Questions and Null Hypothesis

This study was designed to answer the following questions:

1. Is there a relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development?

H_o There is no relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development.

2. What is the attitude of principals toward teachers as learners in school-based staff

development regarding the principles of creating the conditions conducive for learning?

3. What do teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning?

Purpose of the Study

The purpose of this study was to contribute to the knowledge regarding the competencies of principals in creating the conditions for learning in school-based staff development. This study was designed to contribute to research in adult learning, staff development, and the principalship. The intent was to provide information to assist in understanding the research foundation of creating the conditions for learning in staff development. The use of the understanding derived from the research foundation may contribute to the development of pre-service for principals, staff development, higher education, and principal leadership academy programs as they are developed based upon the foundation of research presented rather than an assumption of understanding.

Leadership Skills

In the National Association of Secondary School Principals assessment model, "Selecting and Developing the 21st Century Principal," 1 of the 10 vital skills for effective school leaders is the "development of others." According to performance data from this model, the development of others skill was "repeatedly found as an area needing improvement" (Terehoff, 2002, p. 65). Goodlad (1984) suggests the main reason most schools are unable to solve school-wide problems are because principals do not have the essential skills of group leadership. Even though the principals play a pivotal

role as professional development leader, many principals do not have the knowledge about staff development to implement it effectively (Arbuckle, 1995; LaPlant, 1995).

Experience in Creating the Conditions for Learning

"One of the reasons why educators may experience difficulty in creating collaborative learning environments in schools is that they have never experienced that kind of learning environment for themselves" (Short, Girogis & Pritchard, 1993, p. 2). Hill, Lofton, and Chauvin (1995) suggest from their research that this collaborative learning environment is a "necessity and more than a cooperative enterprise" (p. 16).

Little has been done to explore the process among school principals of how their subjective understanding of being a principal is formed (McGough, 2002). Blumberg and Greenfield (1986) state that each principal develops a personal belief of the role of the principal that is formed from their own individual experience, training, and personality. Even though principals may have knowledge of adult learning, staff development, and creating conditions for learning, there is a gap between principles and practices in the field of adult learning (Henschke, 1992).

Delimitations/Boundaries

Participants were recruited from early childhood, elementary, middle, and high schools in a metropolitan suburban school district in the Midwest. The district is located in a growing middle-class community which has 23.8 % of the students on free or reduced lunch. Student performance data indicates the district has performed above the state standards for attendance, drop out rate, college and vocational placement, the ACT, reading achievement, the state assessment program, and adequate yearly progress (AYP).

The district has 11,250 students, 799 teachers, 16 principals, 12 assistant

principals, and two supervisors who attend or work in the following school sites: Parents as Teachers center, early childhood special education center, eleven elementary schools, three middle schools, and two high schools. The average years of experience in the district for teachers is 12 years and 65.2 % of the teachers have a Master's degree or higher.

Significance of the Study

Principals and the school environment play central roles in supporting or inhibiting adult growth. Research on school improvement persistently identifies school principals as central to the life of the school. Among their many required roles, principals must also be developers of adults (Levine, 1989).

Research Connection

There has been a great deal written about principals and adult learning as it relates to staff development, but there is little research in any setting on how principals can use adult learning theory to support adult development. "Research that explores connections between adult development and leadership practices holds great promise" (Drago-Severson, 2000, p. 6).

The connection of adult learning theory and research on professional development provide a rich context for examining school leader development for school improvement. It is important to understand how adults learn and to be familiar with what research shows to be most effective in the design of programs for professional development.

Definition of Terms

The following definitions will be used in this study:

Andragogy: The art and science of helping adults learn (Knowles, 1996).

Conditions for Learning: As the topic of this dissertation progressed through a review of the literature, one thing became very clear. The word climate, environment and even culture are used interchangeably to mean a similar concept depending upon the individual using it. In the context of learning for children and adults, the use of the word culture was eliminated since it more accurately describes the shared, unspoken norms and expectations that guide the daily affairs of a school community (Deal & Peterson, 1999; Deal & Kennedy, 1982). The words climate and environment describe similar concepts. To avoid confusion as the two are used interchangeably in the literature (learning climate and learning environment), the phrase "conditions for learning" was developed to encompass both words into one. During the course of this paper as research is presented regarding learning climate and learning environment, both words will be describing the phrase "conditions for learning."

Facilitator: Someone who makes progress easier by helping or assisting.

Instruction: the process of imparting or delivering knowledge (American Heritage Dictionary of the English Language, 2000).

Job Classification: A group composed of the group principals and teachers.

Job Classification 2: A group composed of principals, assistant principals, supervisors, and teachers.

Learning: the process of receiving knowledge or skills (American Heritage Dictionary of the English Language, 2000).

Principals: A group composed of principals, assistant principals, and supervisors who daily supervise teachers and are responsible for learning in a building.

Staff Development: Those processes that improve the job-related knowledge, skills, or

attitudes of school employees (Sparks & Loucks-Horsley, 1989).

Staff Development Activities: inservice workshops, training, seminars, graduate school, study groups, inquiry, observation/assessment, development/improvement, reflection, journal reading, and individually-guided staff development (Sparks & Loucks-Horsley, 1989). It is important to note that the terms staff development, inservice, and professional development are used interchangeably in the literature. For the purpose of this dissertation, any reference to professional development or inservice from authors refers to staff development.

Organization of the Study

Chapter One included an introduction, background, statement of the problem, and introduced research questions, hypotheses, and the purpose of the study. Leadership skills and experience in creating the conditions for learning will be explored in the purpose of the study. Delimitations/boundaries, significance of the study including a connection to research, the organization of the study, and definition of terms will be reviewed.

In Chapter Two, a review of literature on staff development and the role of principals as manager, instructional leader, and learning leader are discussed. Three areas which define the role of the learning leader are discussed in detail: creating conditions conducive for learning; establishing and implementing a school-based staff development program; and supporting the growth and development of adults.

Chapter Three presents the methodology, three research questions, null hypothesis, and research design of the study. The population and sample are discussed along with the procedure and instruments used. The statistical analysis used and human

rights protocols are reviewed.

The focus of Chapter Four is a presentation of the results of the study. This includes demographic data, testing of assumptions for statistical analysis, descriptive statistics, and answers to the three research questions and null hypothesis.

In Chapter Five, a review of the findings is given followed by a discussion of the findings and a conclusion section. Implications for practice and recommendations for further research are be suggested and discussed.

CHAPTER II

Literature Review

This chapter reviews the literature related to staff development, the role of principals as managers and instructional leaders, and the role of principals as learning leaders. Three sub-areas of the role of principals as learning leaders include: create conditions conducive for learning; second, establish and implement a school-based staff development program; and third, support the growth and development of adults.

Staff Development

Staff development is designed to help teachers grow professionally (Hawthorne, 1983). It is the "core of school improvement" (Murphy, 2000, p. 3) and is the most effective in the school-based setting (Levine & Lezotte, 1990). For many years, staff development was characterized by several aspects which branded it with negative connotations. These aspects included a one-time inservice group lecture from an outside expert, a lack of connectedness to improving student learning, and a belief that adults learned like children (Sparks & Hirsh, n.d.). Over the last several decades, several organizations, including the Association for Supervision and Curriculum Development (ASCD), the National Staff Development Council (NSDC), and the American Association of School Administrators (AASA) have focused their efforts on how to help make staff development more effective through research, journals, conferences, and websites (American Association of School Administrators, 2003, May; Association for Supervision and Curriculum Development, n.d.; National Staff Development Council, n.d.).

Research shows that "improving teacher knowledge and teaching skills is essential

to raising student performance" (Sparks & Hirsh, nd, p. 1). When a school or district believes professional development is the key to improving the school and student performance, "that attitude permeates everything that they do" (Richardson, 2000, p. 54). Hassel (1999) stated,

> the Teachers Network's National Teacher Policy Institute (NTPI) concluded after a year of study and collaboration that effective professional development programs promote 'an environment that values and nurtures learning and achievement for both teachers and students.' (p. 95)

Sparks & Hirsh (nd) emphasize that "in the absence of substantial professional development and training, many teachers naturally gravitate to the familiar methods they remember from their own years as students" (p. 1).

The National Staff Development Council has written standards for staff development which include content, process, and context. The content area represents the core or baseline knowledge of what teachers should possess to function in their role. The creation of a safe, orderly, and supportive learning environment for students is one aspect of equity in the content standard. The process area defines the "design and delivery of staff development detailing what is known about effective adult learning in schools" (Killion, 1998, p. 3). This standard defines "indicators for adult learning for those who design, deliver, and monitor staff development. The context standard describes a supportive learning environment and the essential qualities of a learning organization" (Killion, 1998, p. 3). This standard outlines the conditions for quality adult learning.

District and school leaders play an indispensable role in creating high-quality professional learning for all staff. Wagner (2001) states "the task of the leader is not to tell teachers what best practices are but to create opportunities for educators to discover them for themselves" (p. 382). At schools that have won staff development awards, principals see staff development as one of the most important parts of their jobs (Richardson, 1998).

Role of Principals as Manager and Instructional Leader

Principals' role as manager of the building stems from a linkage to scientific, organizational, human relations, and behavior management theories from the twentieth century (Hellriegel, Slocum & Woodman, 1992; Hoy & Miskel, 1982). As theoretical ties were made between education and the business world, the role of principals as manager was to administer the school to become more efficient. This occurred by overseeing policies and the application of policies, attendance, community relationships, discipline, facilities, finance, grades, personnel, scheduling, health, and safety (Knezevich, 1984; Sergiovanni, 1991). Management at the building level was an extension of the district and emphasized efficiency (Seyfarth, 1999).

This same view prevails today with principals as manager. Leaders perform routine "tasks of organizing events, financial budgeting, managing facilities and personnel, and dealing with distractions from inside and outside the school system" (NSDC, 2000, p.4). Principals have a number of "non-instructional responsibilities in their role as the boards' agents" (Catholic Principals' Council of Ontario, 2004, p. 35). The Interstate School Leaders Licensure Consortium (1996) state in their standards for school leaders that principals manage the organization to promote an effective learning

environment. Even though management skills are necessary for principals and a linkage exists between manager and instructional leader (National Association for Schools of Excellence & Northwest Regional Educational Laboratory, 1999), principals should move beyond the role as simply building managers to become instructional leaders engaged in the academic life of the school (North Central Regional Educational Laboratory, n.d.).

Principals are often viewed as the instructional leader of the school; however, defining the concept and fulfilling the role of instructional leadership has created difficulty and conflict (Knezevich, 1984; Terry, 1996). Prior to being viewed as instructional leaders, principals had not exercised their influence over instructional matters, but were simply managers of policy. The role of principals became more complex when their role was expanded from manager to be the instructional leader while still retaining their previous role as manager (Lockwood, 1996; National Association for Schools of Excellence & Northwest Regional Educational Laboratory, 1999). There is an interactive nature between the managerial and instructional leader role. The building management portion is foundational for the operation of the instructional program and the extent "to which the instructional program is effective affects the building management functions of the job" (Smith & Andrews, 1989, p. 24).

Some expectations of principals as instructional leader include a resource provider, instructional resource, communicator, and a visible presence (Smith & Andrews, 1989). Krug (1992) lists five activities of an effective instructional leader. They include: defining a mission; managing curriculum and instruction; supervising teaching; monitoring student progress; and promoting instructional climate. Successful

schools, according to effective schools research, are "led by principals who are recognized as an instructional leader" (Terry, 1996, p. 4) and being an instructional leader is a major role of K-8 principals (Doud & Keller, 1998).

An examination of the role of principals as building manager versus instructional leader suggests the way principals perceive how they spend their time as principals and how they actually spend their time defines their overall role as instructional leader (Smith & Andrews, 1989). Krajewski (1978) studied the roles of secondary principals. Principals were asked to rank order items describing "how principals actually see the routine duties of school principals and how they would like to see the principal's routine duties" (p. 65). Smith and Andrews (1989) in a review of the study state,

> principals rated their value of instructional activities like supervision of instruction, curriculum, and staff development more than management functions like community relations, discipline and pupil services. However, the same principals spent less time on instructional improvement activities than they did on routine management functions (p. 26). If principals do not value instructional leadership activities, then changing their behavior will be difficult. If principals value the instructional leadership part of their job more highly than they do the maintenance functions, then our task is to change their behavior to be consistent with their attitudes and values. (p. 25)

In reality, principals' behaviors were consistent with their attitudes and values; albeit the value of routine management functions since that is how they spent their time.

To further confound the understanding of principals as instructional leader,

individuals other than principals can have the role of instructional leader such as an instructional specialist or teacher. Some believe instructional leaders should be teachers (Terry, 1996) and principals a head-teacher. The Interstate School Leaders Licensure Consortium (ISLIC) has developed standards that provide a framework for effective practice for principals and other instructional leaders (Interstate School Leaders Licensure Consortium, 1996). Each of the six standards have knowledge and disposition competencies which define what an administrator should know, understand, believe in, value, and be committed to. Standard Two states "a school administrator is an educational leader who promotes the success of all students by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth" (Interstate School Leaders Licensure Consortium, 1996, p. 10).

The National Staff Development Council (NSDC) prepared a report identifying what various school and governmental bodies can do to assist principals and other educators to become instructional leaders (2000). To assist principals and teachers in becoming instructional leaders, the report "recommends that the federal government, states, and local districts adopt professional development policies targeted at upgrading the leadership capabilities of principals and teachers" (p. 12). The NSDC recommendations include increasing funding for professional development opportunities, leadership networks or academies to providing coaches, improving the selection of principals, incorporating professional development into school evaluations, and advancing teacher leadership initiatives. An identity crisis ensues as other individuals besides principals claim the role of instructional leader.

One of the more confusing aspects of instructional leadership may be in the use or

perception of the word *instructional* in contrast to the word *learning*. Knezevich (1984) believes the central focus of instructional leadership is learning in the school setting, how learning effectiveness may be enhanced, and what resources are essential to the learning process. He continues, "instruction and learning are two sides of the same coin; instruction defines the educational process from the instructor's or teacher's perspective, and learning is the related activities from the student's point of view" (p. 411).

Downs (2000) believes that when principals act as instructional leaders by focusing on student learning and building learning communities, they demonstrate they are serving teachers and students. If this is true, instructional leadership has more to do with learning than instruction. This explains to some degree the difficulty defining the term instructional leadership and the attempts to explain how the role is fulfilled. If instructional leadership has more to do with learning, the use of the term or concept of instructional leadership possibly should be abandoned for one that more accurately reflects its intent.

Role of Principals as Learning Leader

Principals have many roles in the day-to-day affairs of a school. These roles can include management, instruction, counselor, staff developer, behavior resource person, curriculum consultant, public relations advocate, and finance overseer to name a few. Matthews and Crow (2003) believe principals perform their roles in two main ways: directly as learners, mentors, and leaders; and indirectly as guides for others' learning, mentoring, and leading. Blankstein (2004) views principals' roles and responsibilities in a similar manner but links the direct and indirect roles together into a single focus of learning. He states, "the prime responsibility of all school leaders is to sustain learning"

(p. 62). "Leaders of learning put learning at the center of everything they do: student learning first, then everyone else's learning in support of it" (Blankstein, p. 62).

Improving student learning is the at the heart of school improvement and one of the most critical roles that is essential to the effectiveness of the school is the leadership of principals in school improvement (Levine, 1989). Principals are in the central position to effect change to improve the school (Goodlad, 1984). "Research on school improvement and school effectiveness acknowledge that significant change and improvement are unlikely to happen if principals are not leading or at least directly involved in and supportive of the change effort" (Lambert & Lambert, 1985, p. 32). They are the key to quality and their support is crucial to change at the school level and creating the conditions which improve learning in schools (Crawford, Bodine & Hoglund, 1993; DuFour, 1991; Fullan & Stiegelbauer, 1991; Lambert & Lambert, 1985; Purcell, 1987).

Leithwood and Jantzi (1990) suggest that one of the strategies to promote the improvement or transformation of schools is developing teachers and fostering professional development. Principals are key figures in determining the ultimate success of any effort to develop school personnel and thus play a major role in school improvement. Drago-Severson's (2002) research points toward a different way of thinking about supporting teacher development by principals, which she calls learning-oriented leadership. Teachers learn in a supportive climate according to principles of adult learning for the purpose of strengthening what they do in the classroom so students can learn better. This leadership must be focused on creating and sustaining the conditions for learning. With all the distractions principals face on a daily basis, their role as a leader of learning is put to the strongest test when their school "faces demanding

measures or policies that seem to undermine true learning or distract people's energies and attention away from it" (Blankstein, 2004, p. 68).

Principals as the learning leader must establish learning as the priority in the school (Blankstein, 2004) and promote the improvement of the school through staff development (Leithwood & Jantzi, 1990). Effective schools researchers (Edmonds, 1979; Levine & Lezotte, 1990; Marzano, 2003; Sammons, 1999) have each identified similar factors or characteristics of effective schools. Two factors of note are: creating conditions for learning which foster learning and collaboration; and establishing and implementing a staff development program (Duttweiler, 1988; Oja, 1991).

Creating Conditions Conducive for Learning

One of the eight characteristics of effective schools (Duttweiler, 1988) is a positive school climate or conditions which foster learning and collaboration. These kinds of schools have as one of the primary characteristics leaders who have the ability to create an atmosphere of growth or a school climate conducive for learning (Crawford, Bodine & Hoglund, 1993; Weber, 1987). As leaders, principals "must display the vision and skills necessary to create and maintain a suitable teaching and learning environment" (Guthrie & Reed, 1986, p. 199). Their primary mission is to exercise leadership in creating the conditions that support the development of a positive and healthy learning atmosphere in the school where teachers can learn (Drago-Severson, 2002; Hoover, 1998). Developing this kind of climate is a process that one must work to achieve (Johnson, 1978) and one in which "teachers can teach more effectively and students can learn better" (Lockwood, 1996, p. 7).

Principals must work with their colleagues, staff, and community to

reinvent the learning environment to meet the demands of the 21st century. The term learning environment denotes a new arrangement for learning to replace the concept of school as organization. LaPlant (1995) states two realities of the new learning environment are: (a) "staff development will become more job-embedded" (p. 56); and, (b) "adults will model the kind of continuous, life-long learning that they desire to promote in students" (p. 56). Kiley and Jensen (2000) cite research that the "school environment correlates with the effectiveness of schools and the professional development of teachers" (p. 7).

If teachers are responsible for creating the conditions conducive for student learning in the classroom, it follows that principals are responsible for creating the conditions conducive for adult or teacher learning in the school setting. "The classroom is a learning environment for students just as professional development activities are learning environments for teachers" (Cwikla, 2002, p. 4) and administrators are "key figures in the design of teacher learning experiences and professional development" (Magliaro, Dika, Greene, & Lubbs, 2001, p. 23). Creating these conditions for learning for teachers consists of understanding how adults learn and becoming "familiar with what research shows to be most effective in the design of programs for professional development" (Butler, 1989, p. 4).

Establishing and Implementing a School-based Staff Development Program

Another characteristic of effective schools is an extensive staff development program (Duttweiler, 1988) and the "responsibility for establishing and implementing a school-based staff development program rests with principals" (Krajewski, Martin, & Walden, 1983, p. 75). The National Staff Development Council (2001) states teacher

professional development within a school is an area in which principals are expected to assist teachers to develop skills to become more effective in the classroom to increase student learning. Goodlad in *The School as Workplace* (1984) states the individual school is the focal point on which to focus for effecting improvement within the formal educational system and principals are the critical factor for effecting that improvement. Conran and Chase (1983) indicate that a significant factor in effective and ongoing staff development is leadership that is consistently strong and supportive. Active principals will lead faculty members toward becoming more active in their professional growth.

In a study examining the connections between staff development and student achievement in the state of Georgia schools, the teachers in high achieving schools were motivated to participate in staff development activities because the activities were part of their school improvement plan or the activities would help them meet the goals that their school had set. A focus group of teachers from 6 of the 30 higher achieving schools "emphasized the importance of their principal's support and encouragement when we asked why teachers in the school participated in staff development" (Weathersby & Harkreader, 1999, p. 20). Teachers with a high personal teaching efficacy expect their principals to act as colleagues and to create climates which promote a wide range of learning activities (Scribner, 1998).

In a survey of 700 teachers and principals, one item asking what can principals do to assist you in preventing and eliminating disruptive problems in the school or in the classroom was answered overwhelmingly with the "principal should be a leader in staff development" (Johnson & Chaky, 1978, p.12). Teachers expect principals to provide "significant leadership in improving instruction through in-service education" (Hall,

Benninga, & Clark, 1983, p. 17).

The leadership of building principals is imperative for staff development to positively impact student learning. Principals can "influence instructional effectiveness directly by interacting with teachers, as well as indirectly by creating an organizational structure that facilitates instructional effectiveness" (Duke, 1982, p. 4). The overall effect of this leadership is to "create a climate that encourages people to learn and grow, prizes their contributions, and cherishes their independence and autonomy" (Bennis, 1989, p. 146).

Creating conditions for learning in staff development.

Creating the conditions for learning in staff development is an important aspect of the staff development process and should not be taken lightly. Principals play a major role in establishing a productive learning climate which enables staff to grow so the school can help students learn (Crawford, Bodine, & Hoglund, 1993; DuFour & Berkey, 1995; Johnson, 1978; Killion, 1999). Joyce and Showers (1988) state staff development programs are more likely to be effective in schools where the climate for learning is positive and this kind of climate should be developed before staff development efforts are attempted (Wood, 1982). Principals who understand the importance of providing a safe and stable environment for the staff development program "will make people feel secure and confident about learning" (Terehoff, 2002, p. 72). The number one factor that leaders can exercise in facilitating positive change is creating a supportive and encouraging environment (Champlin, 1987; Richardson, Flanigan, Lane, & Keaster, 1992). Current staff development models disregard the teacher as an individual person and neglect the context of staff development as a factor to enhance or inhibit personal

growth (Drago-Severson, 2000).

A central point of creating an effective learning climate for staff development is treating teachers with respect and valuing them as professionals (Drago-Severson, 2002; DuFour, 1991). "Respect for others can enhance academic performance and improve the learning environment" (National Association for Schools of Excellence and Northwest Regional Educational Laboratory, 1999, p. 8). Respect, showing appreciation, and listening carefully to others demonstrates aspects of a supportive teacher and student learning climate in action (Drago-Severson, 2002). Blase and Kirby (2000) state critical elements in developing positive school climates conducive for teacher learning are respect, support, and trust. Principals identified these as elements that teachers need when the teachers make decisions for their growth and professional development.

Teachers need to be assured they are an important part of the school learning community and their experiences are valuable resources. As teachers are encouraged, valued and respected, their willingness to become open and vulnerable and trust the facilitator and fellow participants is greatly enhanced. As these conditions occur, systems of support can be built which help sustain long term staff development efforts.

Systems of support for learning in staff development include collegial relationships, supportive leadership, focused and clear goals, sufficient time for learning and collaborating, shared governance, appropriate rewards/recognition, and adequate resources. Each of these features is essential to support teacher learning within a professional community (Killion, 1999). As staff collaborate, exercise personal and group autonomy, and are supported in their efforts, they will encounter opportunities to move out of their comfort zone and have a willingness to experiment. This willingness to

experiment occurs as staff encounters a relaxed and safe atmosphere in which to learn (DuFour, 1991; Richardson & Prickett, 1994).

"Opportunities for the professional development of teachers that occur in schools seem best fostered in supportive cultures and interpersonal and professional contexts in which teacher and administrator relationships are positive" (Ellett, Hill, Liu, Loup & Lakshmanan, 1997, p. 13). Strategic to the long term success of building staff development is the relationship between principals and the staff before, during, and after the conditions for learning are created.

Little (1982) noted successful schools always have two vital components that assist in developing the relationship between principals and teachers: collegiality and continuous improvement. Creating a collegial culture in schools is a vital strategy for individual and school development. Building and managing this culture of reflection, collegiality, and interaction of a learning community is the "single most strategic thing professional development leaders can do" (Arbuckle, 1995, p. 173).

Setting an example through attitude and behavior.

Two factors crucial in the development of a supportive learning climate for staff development are the attitudes and behaviors of principals (Griffin, 1982; Johnson, 1978). These two factors greatly influence the level of success of the conditions for learning. Principals who are visible and active in their leadership role and the governance of the school will influence the social climate of the school more than principals who are rarely seen participating in the lives of students and staff. Principals can promote or prevent staff development and are the "most significant influence in bringing about education improvement" (Sievert, 1983, p. 19).

The phrase "leading by example" is an important component in creating the conditions for learning. Principals who desire that others grow professionally must first be an example and follow through on their own commitment to growth (DuFour, 1991). They must take the lead and actively seek opportunities for their own growth and development. They also must be a participant in school-based staff development to affirm their commitment to the improvement of the school through staff growth. It is important to note the example set can positively or negatively influence whether the conditions for learning are created and how comfortable the staff is in the conditions that are created. Principals involvement in school-based professional development and "his or her capacity to engage staff members in a continuous process of learning, discovery, and growth" (Terehoff, 2002, p. 65) are crucial to the process of staff development.

Fielding & Schalock (1985) state the "effectiveness of staff development programs will hinge to a considerable extent on the guidance and support furnished by the building principal" (p. 70). For school improvement to take place, principals must assume an active part in staff development. Weber (1987), in discussing the literature on successful schools and successful principals, states one way these principals influence the school environment is through "modes of behavior that encourage positive learning outcomes" (p. 16). They discuss the importance of learning and the application of that learning in life experiences. In addition, principals put into place procedures to keep the school safe and free from the fear of ridicule which provides a place where learning can occur.

A lack of example by principals can have an adverse effect on the staff and even students. "The morale of staff, a critical factor in establishing a positive climate for significant staff development activities" (Purcell, 1987, p. 5), could suffer from the poor

judgment and choices on the part of principals. Ellett and Walberg (1979) state the poor judgment and choices on the part of principals ultimately impact students' perceptions of the learning environment and their learning. They found that principals influence students mostly by influencing teachers' performances. As principals influence the conditions for learning in the building, positively or negatively, the nature of the principal-teacher relationship was the primary factor that affected the students' perceptions of the environment. DuFour (1991) states "it is the actions of principals, not their exhortations, which communicate most forcefully and effectively" (p. 44).

Because principals' behavior influences the school climate more than any other factor, any accommodation to the shared values of the school culture made by principals, has an undermining effect on the culture and climate (Crawford, Bodine, & Hoglund, 1993; Fairman & Clark, 1985). A pivotal role of principals as staff developers is to take the responsibility to create the conditions to enable change to occur and in which teachers can sharpen the skills of their position (Basom, Yerkes, Norris, & Barnett, 1995; Joyce & Showers, 1988). If teachers are responsible for creating the conditions conducive for student learning in the classroom, it follows that principals are responsible for creating the conditions conducive for adult or teacher learning in the school setting.

To create a climate that promotes the growth and development of teachers, principals can consider the principles of the andragogy in which adult learners are guided through staff development in a manner that evokes trust and respect (Terehoff, 2002). The andragogical process will be discussed later in this chapter. "School principals, by virtue of their leadership position, are one of the key influences toward shaping school environments that are supportive of the growth and development of adults as well as the

children" (Drago-Severson, 2000, p. 5).

Supporting the Growth and Development of Adults

One of the leadership roles of principals in the context of the school community is to support the growth and development of adults. This kind of leadership makes schools healthier places to learn for children (Drago-Severson, 2000; McPherson & Lorenz, 1985; Richardson, 1998). "Just as there are more effective and less effective strategies for helping children learn, so are there more and less effective strategies that promote adult learning" (Kronley & Handley, 2001, p. 28).

Schools generally do not adequately attend to the developmental needs of adults. In the National Association of Secondary School Principals' assessment model, "Selecting and Developing the 21st Century Principal," 1 of the 10 vital skills for effective school leaders is the development of others. According to performance data from this model, this particular skill was "repeatedly found as an area needing improvement" (Terehoff, 2002, p. 65). McPherson and Lorenz (1985) state "most principals have not learned how to teach adults effectively" (p. 55) and they see teachers as dependent learners as they were when they were children rather than independent learners. Advocates of adult growth, who have studied staff development, believe that "theories of adult development can be powerful tools for supporting the development of adults in schools" (Drago-Severson, 2000, p. 5). Drago-Severson states,

> current theories on school leadership and the principal's role in relation to adult learning suggest four possible ways in which principals can support adult development. Principals can: create a developmentally oriented school culture; build interpersonal relationships with teachers; emphasize

teacher learning; and/or focus on teachers' personal growth. (p. 6)

Since building staff development activities is a large portion of the learning activities that occur for adults in a school, principals must appreciate the differences between adult and youth learners. When working with adult learners, principals need to be aware of the "characteristics that distinguish adult learners from student learners and the principles on which the process of adult learning is based" (Terehoff, 2002, p. 66). Adult learning has had from its inception, the premise that adults learn differently than children and thus how they receive learning should be different.

In most formal educational settings, the pedagogical model of learning is prevalent. Pedagogy is derived from the Greek words meaning *child leading* and has become known as the art and science of teaching children. It places the learner in a passive and submissive role with the responsibility for what should be learned, how it should be learned, when it should be learned, and whether it has been learned with the teacher. The learner follows an extrinsically motivated course of study in order to be promoted or gain some reward. For years, higher education institutions have taught pedagogical techniques to help effectively transmit the content (Knowles, 1996). As adult education developed in the first part of the twentieth century, pedagogy was the only model teachers of adults had available and the result was adults were taught as if they were children.

In 1926, Eduard Lindeman proposed in his book, *The Meaning of Adult Education*, that adults were not grown-up children. He related that "adults learned best when they were actively involved in what, how and when they learned" (Knowles, 1996, p.254). Other disciplines, who were conducting their own concurrent research in clinical

and developmental psychology, supported Lindeman's proposal. In the early 1960's, adult educators in Europe felt a need to place a label on the knowledge base of helping adults learn and used a word which had been invented in 1833 by an adult educator in Germany. The word andragogy is derived from the Greek word *aner* meaning adult and literally meaning "man, not boy" (Knowles, 1996, p. 254). Andragogy, or the art and science of helping adults learn, was used as a corresponding word to pedagogy; however, it is now used as an alternative learning approach to pedagogy (Knowles, 1996). The andragogical model of Knowles (1996) is based upon the following assumptions of adult learners:

1. "Adults have a need to know why they should learn something" (p. 255). From the testimony of an experienced practitioner or through real experiences, learners need to know the benefits of knowing and the costs of not knowing why they should learn something. People learn to cope with real-life tasks or problems.

2. "Adults have a deep need to be self-directing" (p. 255). Even though adults may be completely self-directed in much of their daily life, when they become involved in education or training they generally revert back to a dependent role as it was when they were in school. The problem for them comes when this dependent placement or treatment conflicts with their need to be self-directed. This maturing process from dependency to self-directedness varies from person to person based upon their life experiences.

3. "Adults have a greater volume and different quality of experience than youth" (p. 256). It follows that as people age and mature they accumulate more and different kinds of experiences. These experiences provide a vast wealth of resources for the

individual and others and are a framework in which new ideas and skills can be attached for a deeper understanding. Since their experiences define who they are as adult learners, not respecting or valuing their experiences is not a rejection of their experiences, but a rejection of them as people.

4. "Adults become ready to learn when they experience in their life situation a need to know or be able to do in order to perform more effectively and satisfyingly" (p. 256). In a pedagogical model, learners are told when they are ready and they have to learn because the authority figure says so or it is good for them. This causes resentment, defensiveness, and resistance in adults who learn best when they voluntarily make a commitment to learn.

5. "Adults enter into a learning experience with a task-centered (or problem-centered or life-centered) orientation to learning" (p. 257). Subject-centered learning is often viewed by students as a means to an end such as passing a test or a class. Once the content is learned the goal is accomplished. Those who approach learning from a task-centered view will see the learning as more relevant to their lives and will learn the content with the intention of using it.

6. "Adults are motivated to learn by both extrinsic and intrinsic motivators" (p. 257). Children are often motivated mostly through extrinsic motivators such as grades and diploma. Adults respond in a similar manner through promotion, additional salary and better working conditions. The powerful and persistent motivators are those that build self-esteem, personal responsibility, and achievement.

The above assumptions of andragogy give valuable suggestions for the planning and implementation of staff development activities for principals. These include

"designing and managing a process for facilitating the acquisition of content by the learners; and secondarily serving as a content resource" (Knowles, 1996, p. 258).

Principals who use andragogical concepts when organizing and conducting inservice activities tend to have successful inservice activities (Richardson & Prickett, 1994). A major reason for the failure of most inservice activities conducted by principals is a failure to understand andragogy. McPherson and Lorenz (1985) state "principals have not learned how to teach adults effectively" (p. 55). They continue that principals "must learn basic premises of andragogy if they are to be sound instructors of teachers" (p. 55). Principals' development as an andragogical educator is one way to build a bridge back across the ravine between administrators and teachers (McPherson & Lorenz, 1985).

To create a climate that promotes the growth and development of teachers, principals can consider the principles of the andragogy in which adult learners are guided through staff development in a manner that evokes trust and respect (Terehoff, 2002). They must learn the basic premises of andragogy (as contrasted with pedagogy) if they are to be sound instructors of teachers and parents.

Understanding and using the elements of adult learning in the process of planning, designing, and implementing professional development programs can help establish a positive learning climate, spirit of mutual inquiry and make school-based teacher professional development activities more effective (Daresh, 1997; Ingalls, 1984; Richardson & Prickett, 1994; Terehoff, 2002). Theories of adult learning are clearly connected to professional development that is systematic, effective in design, and designed to transform staff (Kronley & Handley, 2001). While theories of adult development are not well known or used specifically in schools, they "offer an important

tool for professional development and school leadership" (Levine, 1989, p. 265). Using these concepts can improve the ability of principals to help staff develop professionally and bring about developmental "changes in internal consciousness" (Boucouvalas & Krupp, 1989, p. 184).

Creating conditions for learning in adults.

Creating the conditions conducive for learning that meets adult learner needs is not only a prerequisite to effective learning but is an important element of a successful adult education program (Imel, 1988; Knowles, 1984). There are numerous factors that form the basis for developing these conditions in adult learning. These factors can be divided into two distinct groups: physiological and psychological. Physiological factors are external to the learner and include items such as lighting, furnishings, temperature, refreshments and security. Psychological factors are internal to the learner and include acceptance, trust, respect, positive communication, and relationship.

Knowles (1984) identifies seven characteristics of a psychological climate that are conducive for learning. These characteristics are: mutual respect; collaborativeness; mutual trust; supportiveness; openness and authenticity; pleasure; and humanness. He later adds that a "learning environment is characterized by physical comfort, mutual trust and respect, mutual helpfulness, freedom of expression and acceptance of differences" (Knowles, 1990, p. 85). This climate is created with the learner in mind in order to maximize the learner's experiences for growth. Adult learners learn best in non-threatening environments of trust, respect, and a feeling of community (Butler, 1989; Magliaro et al., 2001) where they are treated as adults and respected as self-directed persons.

Humanistic psychologists suggest that psychological climates be created so individuals in them can experience safety, caring, acceptance, trust, respect, and understanding (Knowles, 1990). Rogers (1965) sees learning as a process that is internal and controlled completely by learners as they interact with their perceived environment. While physiological factors can be optimized to make the physical environment comfortable in learning, it is the psychological factors that give learners the freedom and internal assurance to engage in the learning process with total vulnerability.

Treating adults as adult learners in a climate of trust, honesty, openness and acceptance, and where they share in the ownership of learning helps break down the barriers of learning for reluctant learners. Knowles (1984) states, reluctant learners are then "able to develop a more positive attitude about themselves" (p. 403) and "feel motivated beyond anything they have previously known" (p. 403). Knowles (1990) stresses the importance of this outcome that as the climate for learning is developed and nurtured and in which self-improvement is encouraged; the desire to participate in learning activities will increase.

As the facilitator of learning creates the conditions of trust, honesty, acceptance, and open cooperation, a rapport is developed (Knowles, 1984) between the learner and the facilitator. When there is positive rapport between the learner and facilitator, the learner feels safe to share in the ownership of learning as an equal with the facilitator who is seen as "approachable and accessible" (Imel, 1988, p. 2). The conditions of learning, in which teachers share, discuss problems of importance and have the expectation to share in the responsibility for their learning in an open and informal way, is imperative to effective adult learning (Imel, 1988; Richardson & Prickett, 1994).

Teachers need to know that the learning experience will provide them with a sense of growth in their knowledge, understanding, skills, attitude, and interests. They also want to feel confident in terms of their self-respect and self-image in all areas of life (Knowles, 1980). In the literature on adult learning and the experience of skilled adult educators, it is assumed that one of the main ways adults learn best is when they "feel comfortable with the learning environment and attempt tasks that allow them to succeed within the contexts of their limited time and demanding lives" (Tibbetts, Hemphill, Klein, Gasiorowicz, & Nesbit, 1993, p. 51).

Terehoff (2002) states,

> Principals who exhibit the leadership style that provides opportunities for teachers to advance their knowledge, skills, and attitude in a self-directed and autonomous manner will sense the important role of the educative environment for professional development in which teachers will feel cared for, respected, and treated as self-directed human beings. (p. 71)

When principals recognize teachers as self-directed and autonomous individuals, teachers can positively contribute to the informal, positive, and productive psychological climate (Knowles, 1980). It is in this kind of professional development setting teachers will feel and function as adults and share with enthusiasm, humor, and excitement during the learning process. Principals who act as an adult educator can influence the environment either by facilitating or inhibiting learning (Terehoff, 2002).

As adult educators, principals should know that there are significant differences in the conditions surrounding adult and adolescent learning and differences that characterize adult learners from student learners in the learning process (Ingalls, 1984; Terehoff,

2002). These differences deserve careful attention and consideration in the process of professional development.

Creating and sustaining a positive and healthy climate for adults is a deliberate and ongoing process in which consistent effort and attention is needed by principals. It is characterized by growth, trust, openness, collegiality, productivity, and high involvement by principals and staff alike. In cultures of productivity, leaders "facilitate an environment of trust and openness" (Kiley & Jensen, 2000, p. 13). Trust and openness give permission for staff to build collegiality by planning together, working together, observing each other, and implementing new strategies to benefit students. The creation of this atmosphere of collegiality in schools and school systems is a "vital strategy for individual and school development" (Arbuckle, 1995, p. 173).

Knowles (1990) asserts that in his andragogical model, "climate setting is probably the most crucial element in the whole process of Human Resources Development-HRD" (p. 124). He states an organizational climate that promotes learning conveys the organization values people as its most valuable asset and invests in their development. The opposite is also true concerning organizational climates that do not promote learning. Knowles believes when principals see themselves as someone who only manages the logistics of learning experiences for groups of individuals, they will have little influence on the quality of the climate of the organization. When principals view the total organization as their responsibility and understand their mission is to improve the quality of the environment for the growth and development of people, only then will they affect its climate.

In extremely positive climates, personnel who are hesitant about professional

growth do not obstruct initiatives. This kind of climate in fact provides the best prospect for growth (Joyce & Showers, 1988). To impact school-based staff development in a climate conducive for adult learning, principals should have a "comfortable physical atmosphere, positive interpersonal climate, and well-prepared organizational setting" (Terehoff, 2002, p. 71). Principals dealing with teachers must build on the experiences of adult learners (Brookfield, 1986). The learning must relate to the learner's experience. Teachers bring valuable knowledge and insight to the learning environment. Teachers can build on their experience through a time of sharing knowledge if the learning environment is prepared to allow this discussion to take place (Richardson & Prickett, 1994).

Acting as a facilitator and resource person.

From an andragogical perspective, the role of principals in school-based professional development is one of a facilitator, resource person, or co-inquirer rather than instructor. As a facilitator of learning, they set the climate of the learning experience and the tone of the program, develop enthusiasm, and encourage open expression and decision making (Rogers, 1969; Terehoff, 2002). In this role they become a person who the learner can respect and trust (Hill et al., 1995; McPherson & Lorenz, 1985). Using Rogers (1969) ideas on the interpersonal relationship in facilitating learning, Knowles (1990) states,

> the critical element in performing this role is the personal relationship between the facilitator and the learner, which in turn is dependent on the facilitator's possessing three attitudinal qualities: (a) realness or genuineness; (b) non-possessive caring, prizing, trust and respect; and, (c)

empathic understanding and sensitive and accurate listening (p. 77).

Experience which is perceived as inconsistent with the self can only be assimilated if the current organization of self is relaxed and expanded to include it. Significant learning is threatening to an individual and suggests the importance of providing an acceptant and supportive climate, with heavy reliance on student responsibility (Knowles, 1990).

Supporting the growth and development of adults is an important function of principals, but is one area which needs improvement (Terehoff, 2002). The andragogical model (Knowles, 1996) provides suggestions when principals plan and implement staff development activities. Knowing how to use the elements of adult learning can help to establish a climate for learning in which staff development activities are more effective. A climate which addresses psychological as well as physical factors helps to break down barriers for reluctant learners and can stimulate an increase of motivation in learning activities. As climates of trust and respect are developed and built, principals can act as facilitators of learning and be resource individuals. In this role, principals become someone the learner can respect and trust (Hill et al., 1995; McPherson & Lorenz, 1985).

Teacher Expectations of Principals' Leadership in Staff Development

Teachers expect their principals to provide leadership in staff development to improve instruction, act as colleagues, and create climates which promote a wide range of learning activities (Hall, Benninga, & Clark, 1983; Johnson & Chaky, 1978; Scribner, 1998). Teachers also look to their principals for support. In a study examining the connections between staff development and student achievement in the State of Georgia schools, teachers in high-achieving schools were motivated to participate in staff

development activities because the activities were part of their school improvement plan or the activities would help them meet the goals that their school had set. A focus group of teachers from 6 of the 30 higher-achieving schools "emphasized the importance of their principal's support and encouragement when we asked why teachers in the school participated in staff development" (Weathersby & Harkreader, 1999, p. 20).

The relationship between principals and teachers is a key factor in teacher satisfaction. Teachers want principals who are "competent, independent professionals" and "who possess and use professional autonomy" (Goodlad, 1983, p. 50). Teachers in a study by Richards (2003) valued being treated by principals "with respect and fairness, and receiving support in matters of discipline" (p. 20) and stated their principals were "highly visible and gave guidance" (p. 20). The teachers by being respected, in turn respected their principals (Richards, 2003).

Summary

Review of the literature regarding staff development reveals it plays an important function in improving school and student performance. This improvement in part is due to staff development being focused on the knowledge and skills teachers need to function in their role, the delivery of knowledge and skills through adult learning, and the learning environment that supports quality adult learning. Promoting the improvement of the schools through staff development is the role of principals.

Principals as learning leader have three main responsibilities. The first responsibility is creating conditions conducive for learning, primarily where teachers can learn. Staff development in a school-based setting comprises the learning setting for teacher or adult learning experiences. Principals' familiarity with how adults learn and

effective staff development design is an important aspect of creating these conditions.

The second responsibility is to establish and implement a school-based staff development program. This includes understanding the importance of creating conditions for learning in staff development and setting an example through attitude and behavior. Principals, through the creation of a supporting and positive environment in which teachers are respected, and by their personal commitment to growth by actively being involved in staff development activities, help teachers feel secure to engage in learning activities.

The third responsibility is to support the growth and development of adults. This includes knowing how to create conditions for learning and acting as a facilitator and resource person for other learners. An awareness of adult learning theory specifically andragogy, helps in the creation of conditions where adults feel trust and respect from and towards the facilitator of learning. This trust and respect form a safety net of permission which help break down barriers to learning so teachers can engage in learning with excitement and enthusiasm. In turn, teachers respect and trust principals.

"School principals, by virtue of their leadership position, are one of the key influences toward shaping school environments that are supportive of the growth and development of adults as well as children" (Drago-Severson, 2000, p. 5). Principals who act as an adult educator can "influence the environment either by facilitating or inhibiting learning" (Terehoff, 2002, p. 71). Creating the conditions conducive for learning that meets adult learner needs is not only a prerequisite to effective learning but is an important element of a successful adult education program (Imel, 1988; Knowles, 1984). When working with adult learners, principals need to be aware of the "characteristics that

distinguish adult learners from student learners and the principles on which the process of adult learning is based" (Terehoff, 2002, p. 66). The more knowledgeable and proficient school principals are in the principles of adult learning, the conditions for learning created in school-based staff development will be more conducive for successful learning experiences by the staff. The more successful the learning experiences by the staff, the greater the benefit to students in the classroom.

CHAPTER III

Methodology

This chapter includes the following: research questions; description of the research design; population and sample; procedure; instrumentation; statistical analysis of data; and protection of human rights procedures that will be used in this study. Specifics of each area will be presented and discussed.

Two recurring components from the literature review, trust and respect, will be discussed and are the focus of the instruments used. Copies of instruments can be found in the appendix section.

Research Questions and Null Hypothesis

Principals, as learning leaders, can utilize the principles of adult learning to help create the conditions for learning in school-based staff development. Of primary importance to creating these conditions for learning are trust and respect between principals and teachers and teachers and principals. This study is designed to answer the following questions:

1. Is there a relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development?

H_o There is no relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development.

2. What is the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for

learning?

3. What do teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning?

Research Design

This study utilized a descriptive research approach in which the independent variable has already occurred. A design of descriptive research, known as ex post facto or causal-comparative research is one of the "most commonly used methodologies in the study of adult education and training" (Merriam & Simpson, 1984, p. 57). Causal-comparative research involves at a minimum two independent variables and focuses on discovering "possible causes and effects of a behavior pattern or personal characteristics by comparing subjects in whom this pattern or characteristic is present with similar subjects in which it is absent or present to a lesser degree" (Borg & Gall, 1989, p. 537). The decision to use a quantitative research design as opposed to a qualitative research design was made because the goal of this research is to develop a knowledge base and provide generalizations which can then be used to provide a basis for further research. Quantitative research deals with a large population. This study focused on numerous principals, not on an individual principal which would be aligned with a qualitative research design. Qualitative research deals more with specific individuals and makes generalizations about them and may lead to quantitative research.

In the literature cited on staff development, adult learning and the principalship, two components kept recurring: trust and respect. Trust and respect are two factors in creating conditions for learning that the literature cites consistently. Both are uniquely

intertwined together and yet each has distinctive qualities or characteristics. Hoy and Tschannen-Moran (1999) define trust as "an individual's or group's willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open" (p. 43). Henschke (1998) believes trust is one of the major ingredients of a model in the practice of adult educators. He states trust takes the form of:

> purposefully communicating to learners they are important; believing learners know their own goals and dreams; expressing confidence learners will develop the needed skills; prizing the learners to learn what is needed; feeling the learners' need for awareness and communication of their thoughts and feelings; enabling learners to evaluate their progress; hearing what learners say their needs are; engaging learners in clarifying their hopes; developing supportive relationships with learners; experiencing unconditional positive regard for learners; and respecting the dignity and integrity of learners (p. 13).

Blankstein (2004) relates that an attribute of interpersonal relations in effective school programs is a deep sense of trust. This relationship or relational trust involves "distinct role relationships and the obligations and expectations associated with each (Blankstein, p. 61). He continues, "when these expectations are met, trust is enhanced. When a person's expectations of another person are not met, trust is diminished" (p. 61). Bryk and Schneider (2002) propose four components of relational trust:

1. Respect for the importance of a person's role as well as their viewpoint.

2. Competence to administer your role.
3. Personal regard for others is highly associated with reducing others' sense of vulnerability and with general caring.
4. Integrity in this context means alignment of words, actions and ethics. (p. 62)

Henschke's (1988) idea of trust is congruent with Bryk and Schndeider's (2002) components of relational trust. Both concur with the definition of trust by Hoy and Tschannen-Moran (1999). The kind of relationship between individuals or parties, whether it is principals and teachers or adult educators and learners, is critical for the development of the concept of trust. From both Henschke's and Bryk and Schneider's perspective, the leader is responsible to create and facilitate trust.

Respect has also been identified as a factor which contributes to success in relationships, yet there has been little effort to "define respect, measure it, or discover how it relates to other relationship constructs" (Frei & Shaver, 2002, p. 121). Respect can be honor, esteem, or consideration (American Heritage Dictionary of the English Language, 2000). The opposite of respect, contempt, can give an insight into what respect is. Frei and Shaver (2002) in their research on respect quote several writers who suggest "one person's respect for another seems to generate respect in return, which deepens security and increases mutual trust" (p. 122). They cite Lawrence-Lightfoot's "six qualities that make particular individuals respectworthy to their peers" (p. 135). These six qualities include:

> dialogue-communication; attention-being fully present; curiosity-genuine interest in feelings, thoughts and fears of others; healing-nourishing

> feelings of worthiness; empowerment-enabling others to make their own decisions thus nurturing self-confidence; and self-respect-helping others feel good about themselves (Frei & Shaver, 2002, p. 135).

The concept of respect is closely tied to trust and trust is closely tied to respect. Both are key components in relationships. Teachers in a study by Fleming (1999) believed principals trusted and respected them as professionals because they understood principals would be "supportive and help them correct any mistakes they might make" (p. 5). In relationships where collaboration is vital, trust and respect are conditions which support and undergird these relationships (Hipp & Huffman, 2002; Willie, 2000). Riordan and da Costa (1998, April) support the view that "teaching efficacy, as well as trust and respect were critical in the establishment of effective collaborations" (p. 5). "Without creating a culture of trust, respect, and inclusiveness with a focus on relationships, even the most innovative means of finding time, resources and developing communication systems will have little effect" (Hipp & Huffman, 2002, p. 39).

The instruments for this study include the Instructional Perspectives Inventory (Henschke, 1994) and the Respect for Partner Scale (Frei & Shaver, 2002). The Instructional Perspectives Inventory (IPI) was selected for this study as it has been shown to identify the instructional perspectives of adult educators. The Respect for Partner Scale (RPS) was selected for this study as it is one of the only scales of its kind that measures the construct of respect. The Principles of Adult Learning Scale (PALS, Conti, 1979) was considered for this study and is the closest instrument that might measure the important aspects under consideration. It was rejected because the trust element in the IPI is stronger than in the PALS.

In an experiment where the type of independent variable is a nominal measure and the type of dependent variable is an interval measure there are four types of statistical analysis: descriptive statistics, analysis of variance, multiple regression, and multiple discriminant analysis. Borg and Gall (1989) state " analysis of variance is used to determine whether mean scores on one or more factors differ significantly from each other, and whether the various factors interact significantly with each other" (p. 356). Analysis of variance allows a comparison of subgroups that may vary on more than one variable (Borg & Gall, 1989). A MANOVA is used when consideration is given to the "interrelationship among the dependent measures" (Moore, 1983). The analysis of data for this study will utilize MANOVA and ANOVA. "It is suitable to experiments since the independent variable – treatments – is usually a nominal variable and the dependent variable is usually intervally measured scores" (Galfo, 1983, p. 206).

Independent variables identified for this study include:

1. Age
2. Gender
3. Building level
4. Number of years as teacher or principal
5. Highest degree earned
6. Formal and/or informal exposure to adult learning concepts

Dependent variables are identified as:

1. Teacher empathy with learners
2. Teacher trust of learners
3. Planning and delivery of instruction

4. Accommodating learner uniqueness

5. Teacher insensitivity toward learners

6. Experience-based learning techniques (Learner-centered learning processes)

7. Teacher-centered learning processes

8. Respect

Population and Sample

The population for this study included principals and teachers in a suburban Missouri school district. The district is located in a growing middle-class community which has 23.8 % of the students on free or reduced lunch. Student performance data indicates the district has performed above the state standards for attendance, drop out rate, college and vocational placement, the ACT, reading achievement, the state assessment program, and adequate yearly progress (AYP).

The district has 11,250 students, 799 teachers, 16 principals, 12 assistant principals, and two supervisors who attend or work in the following school sites: Parents as Teachers center, early childhood special education center, eleven elementary schools, three middle schools, and two high schools. The average years of experience in the district for teachers is 12 years and 65.2 % of the teachers have a Master's degree or higher.

This group was used because the participants were accessible to the researcher as the researcher is employed in the school district. The researcher has been a principal and assistant superintendent in the district for 16 years and has been in education for 26 years. The study was not expanded as the expected number of participants was ample to provide data.

Procedure

Subsequent to approval by Human Subjects Review Team, principals and teachers in the suburban Missouri school district were identified and recruited to participate. Administration at the school district was contacted describing the study and seeking participants from the staff. Participants in the study were contacted by letter informing them about the study, inviting their participation, and providing consent forms and survey instruments.

Materials, including a consent form, the Instructional Perspectives Inventory-Revised for Principals, the Respect for Partner Scale-Revised for Principals, and a demographic information sheet were provided to principals. Materials, including a consent form, the Instructional Perspectives Inventory-Revised for Teachers, the Respect for Partner Scale-Revised for Teachers, and a demographic information sheet were provided to teachers. All participants were provided with a letter describing the study, inviting their voluntary participation (Appendix A), statements regarding protection of confidentiality, and instructions for submitting the completed inventories and scales.

Instruments

The instruments used in this study included the Instructional Perspectives Inventory (Henschke, 1994) and the Respect for Partner Scale (Frei & Shaver, 2002). The Instructional Perspectives Inventory (IPI) measures seven factors which are identified as beliefs, feelings, and behaviors of adult educators. The IPI was selected for this study as it has been shown to identify the instructional perspectives of adult educators.

The Respect for Partner Scale (RPS) was designed to measure respect for one's

partner in research which examined the concept of respect in close interpersonal relationships. Research of Frei & Shaver (2002) also indicated that constructs such as trust should be studied as it is related to respect. The RPS was selected for this study as it is one of the only scales of its' kind that measures the construct of respect. The use of both the IPI and the RPS best answer the research questions.

Instructional Perspectives Inventory

Henschke (1994) designed the Instructional Perspectives Inventory to be a self-reporting assessment instrument revealing "philosophical beliefs as well as personal and contextual identification, actions and competencies" (p. 74) for guiding conduct in adult education. Seven factors are identified as beliefs, actions and competencies of adult educators are:

1. Teacher empathy with learners
2. Teacher trust of learners
3. Planning and delivery of instruction
4. Accommodating learner uniqueness
5. Teacher insensitivity toward learners
6. Experience-based learning techniques (Learner-centered learning processes)
7. Teacher-centered learning processes

The IPI began from Henschke's (1994) reflection of his practice as an adult educator and came to fruition from the following question: "What ingredients are important and necessary in preparation for teaching adults or helping adults learn?" (p. 74). The IPI begins with a question "How frequently do you. . . ?" and provides four Likert type responses that are given numeric value. They include: A=Never (value of 1),

B=Rarely (value of 2), C=Sometimes (value of 3), and D=Often (value of 4).

The IPI was "developed and used in the staff development program with 410 instructors in Adult Basic Education (ABE), General Educational Development (GED), and English as a Second Language (ESL)" (Henschke, 1994, p. 75). The factor analysis can be found in Table 1 *Factor Analysis of Initial IPI.*

Table 1 *Factor Analysis of Initial IPI*

Sub-areas	*M*	*SD*
Teacher empathy with learners	3.79	0.29
Teacher trust of learners	3.53	0.46
Planning and delivery of instruction	3.50	0.39
Accommodating learner uniqueness	3.28	0.24
Teacher insensitivity toward learners	2.86	0.58
Experience-based learning techniques (learner-centered learning processes)	2.75	0.51
Teacher-centered learning processes	1.89	0.53

Note. (Henschke, 1994).

Following the first analysis, several items were dropped and new items added as they did not correlate with any factor. A revised inventory was developed and used with 210 "faculty members from a variety of subject matter areas who teach in daytime programs in another large metropolitan community college" (Henschke, 1994 p. 75).

In both groups using the inventory, the highest two factors were teacher empathy/sensitivity toward learners, and teacher trust of learners. Henschke (1994) relates, "these are considered significant since this author deems it important for theory and practice to be congruent in graduate adult education" (p. 76). He continues that these two factors "(within the teacher's capabilities) be exemplified in every aspect of her/his

continuous interaction with students/participants" (Henschke, 1994, p. 76). As the inventory underwent revision through the factor analysis process, the resulting inventory consists of 45 items and requires 10 to 20 minutes to complete. The revised inventory that was developed is listed in Table 2.

Table 2 *Factor Analysis of Revised IPI*

Sub-areas	*M*	*SD*
Sensitivity to learner differences	3.82	0.40
Teacher trust of learners	3.45	0.60
Teacher-centered learning processes	3.10	0.79
Experience-based learning techniques (learner-centered learning processes)	2.70	0.82
Teacher insensitivity toward learners	2.42	0.68

Note. (Henschke, 1994).

Statements for factors one, two, three, four, six and seven are worded in a positive manner and statements for factor five are worded in a negative or reversed manner. Positively stated items are phrased in a manner that high scores indicate an emphasis in adult education or learning concepts. Conversely, the negatively stated items are phrased in a manner that high scores indicate a lack of emphasis in adult education or learning concepts. Those taking the inventory inclined toward adult education or learning concepts would score higher on the positively stated items and lower on the negatively stated items.

Thomas (1995) performed a reliability study of the Instructional Perspectives Inventory in his doctoral dissertation entitled "An Identification of the Instructional Perspective of Parent Educators." Cronbach's Alpha Coefficient Statistic was applied to determine reliability of each factor. Factor one, teacher empathy with learners, was

retained with caution that results may not positively discriminate between respondents (Thomas, 1995). The results listed in Table 3.

Table 3 *Cronbach's Alpha Coefficient for IPI*

Sub-areas	*a*
Teacher empathy with learners	@.21
Teacher trust of learners	@.49
Planning and delivery of instruction	@.78
Accommodating learner uniqueness	@.60
Teacher insensitivity toward learners	@.62
Experience-based learning techniques (learner-centered learning processes)	@.71
Teacher-centered learning processes	@.40

Note. (Thomas, 1995).

Dawson (1997) used the Instructional Perspective Inventory in her study of faculty in nursing programs which indicated that the years of teaching nursing affects the beliefs, feelings, and behavior of teacher empathy with learners, teacher trust of learners, and teacher insensitivity toward learners. The highest degree earned by nurse educators also affected the beliefs, feelings, and behaviors of teacher empathy with learners, teacher trust of learners, learner centered learning processes, and teacher centered learning processes.

Drinkard (2003) studied "instructional perspectives of nurse faculty engaged in teaching via distance education" (p. i). Her use of the Instructional Perspective Inventory revealed that respondents with doctorate degrees outside of nursing scored significantly higher than those with doctorate degrees in nursing in the area of teacher trust of learners. An additional significant area of teacher trust of learners was from respondents with a Master of Science degree in nursing who scored significantly higher than those with a

doctorate in nursing.

Construct validity for the Instructional Perspectives Inventory was completed by Stanton (2005). The overall Cronbach's alpha was .8768. The IPI and six IPI factors (teacher empathy with learners; teacher trust of learners; planning and delivery of instruction; accommodating learner uniqueness; teacher insensitivity toward learners; and learner-centered learning) were found to correlate with the Self-directed Learning Readiness Scale (SDLRS) of Guglielmino (1977). "Three IPI factors, planning and delivery of instruction; teacher insensitivity toward learners; and teacher-centered learning processes, explained 19.4% of the variance for self-directed learning readiness" (Stanton, 2005, p. i). Stanton found five "reported andragogical IPI factors had a significant relationship with each other: teacher empathy with learners; teacher trust of learners; planning and delivery of instruction; accommodating learner uniqueness; and learner-centered learning processes" (p. i).

Stanton (2005) developed Andragogical Principles category levels for the IPI based upon an overall IPI score. The category levels can be found in Table 4.

Table 4 *Andragogical Principles Category Levels*

Category Levels	Percentage	IPI Score
High above average	89%-100%	199-225
Above average	82%-89%	185-198
Average	66%-81%	149-184
Below Average	55%-65%	124-148
Low below average	54%	<123

IPI score, in a range from less than 123 to 225, indicated a specific category level on a five-level scale.

Revised versions of the IPI for principals and teachers were developed to reflect

the research questions. Henschke, author of the instrument and chair of this dissertation committee, reviewed the revised IPI instruments for principals and teachers and stated they reflected the research questions and did not change the nature of the instrument. The IPI revised for principals appears in Appendix B with instructions for scoring appearing in Appendix C. The IPI revised for teachers appears in Appendix D with instructions for scoring appearing in Appendix E. Permission to use the inventory was obtained from Henschke and appears in Appendix F.

Respect for Partner Scale

Frei and Shaver (2002) designed the Respect for Partner Scale (RPS) to measure respect for one's partner in research which examined the concept of respect in close interpersonal relationships. The 45 items on the RPS are scored on a "one to seven scale with endpoints labeled 'disagree strongly' and 'agree strongly' and the middle point (four) labeled 'neutral/mixed'" (Frei & Shaver, p. 138). The RPS was developed and refined through three studies.

Study One consisted of 189 students in introductory psychology classes from two northern California universities who completed an "open-ended questionnaire asking for features of respect" (Frei & Shaver, 2002, p. 123). The participants were to list as many features of respect that came to their mind. Three different relationship contexts were given in which to list the features of respect: general interpersonal context; parents and caregivers; and romantic partners. A coding system was used to rate responses of 33 randomly selected participants and yielded 31 categories. Of the 31 original coding categories, 22 categories were "mentioned by more than 15% of participants in any of the three relational sections of the questionnaire (general, parent/caregiver, romantic

partner)" (Frei & Shaver, 2002, p. 125). A natural break in the frequency distribution occurred at the 15% level.

The results of Study One indicated that "respect is an attitudinal disposition toward a close relationship partner who is trustworthy, considerate, and accepting, and this conception holds across a variety of close relationships" (Frei & Shaver, 2002, p. 125). Of note were features of a respectworthy relationship partner which were admirable moral qualities.

The participants of Study Two included 182 introductory psychology students from two university campuses in California. In this study, more than one scale item was created using the 22 items in the coding category. In total, 45 scale items were included in the RPS. Following the RPS, participants completed a rating form that "listed the features of respect mentioned in all 31 coding categories in Study 1" (Frei & Shaver, 2002, p. 127). Each feature was rated by its importance to "respect in the context of interpersonal relationships" (Frei & Shaver, p. 127) such as parents, romantic partners, friends, and coworkers.

Two additional kinds of measures were included for the assessment of construct validity, the Experiences in Close Relationships (ECR) scale (Brennan, Clark, & Shaver, 1998) and the Inventory of Personal Characteristics (IPC) (Benet & Waller, 1995; Tellegen & Waller, 1987). "Half of the ECR scale measured attachment-related avoidance and half measured attachment related anxiety" (Frei & Shaver, 2002, p. 127) while the two scales of the IPC measured "participants' perceptions of their partners' moral qualities (Frei & Shaver, p. 127).

When the top features of the coding category of Study One and Study Two were

compared, the conceptual understanding of respect was for someone who is a "morally good, considerate, and trustworthy person who respects others' views" (Frei & Shaver, 2002, p. 128). The 45 item RPS had a reliability alpha value of .98. "The 20 best items (in terms of corrected item-total correlations) were tested for internal consistency and found also to have a high alpha coefficient (.97), suggesting that a shorter scale can be used in future research" (Frei & Shaver, p. 129).

Study Three was designed to determine discriminant validity. Half of the respect items were rewritten in a negative or reversed form. "The RPS correlated significantly and in the expected directions with relationship satisfaction and the other predictor variables" (Frei & Shaver, 2002, p. 131). The study had a total of 319 students; 256 from introductory psychology classes at a California university and 61 who were friends recruited from the 256 participants. Correlations are shown in Table 5.

Table 5 *RPS Correlation*

Scale	1	2	3	4	5	6	7	8
1. Respect	-	.75*	.53*	-.39*	-.24*	.31*	-.50*	.73*
2. Liking		-	.69*	-.42*	-.07*	.67*	-.36*	.67*
3. Loving			-	-.61*	.14^	.56*	-.21*	.64*
4. Attachment avoidance				-	.09	-.41*	.27*	-.56*
5. Attachment anxiety					-	-.08	.07	-.23^
6. Positive valence						-	-.33*	.54*
7. Negative valence							-	-.33*
8. Relationship satisfaction								-

Note. ^ = p < .05. * = p < .01. (Frei & Shaver, 2002).

Participants completed a demographic sheet, questionnaire on a variety of relationship factors, a liking and loving scale (Rubin, 1970), the Relationship Assessment Scale (RAS; Hendrick, 1988) and the RPS. In this study every other item of the RPS was reverse worded.

The research by Frei and Shaver (2002) was the "first systematic examination of the concept of respect in close relationships" (p. 136). Their research discovered that respectworthiness "is closely related to moral integrity" (p. 136). They continue, "a respectworthy partner is, according to our study participants, admirable and trustworthy by virtue of being honest and sincerely concerned about others' welfare" (p. 136). The RPS was created from open-ended responses and aspects of respect. "Though the final RPS items touch on various other aspects, there are no subscales" (J. Frei, personal communication, March 31, 2005). Their research also indicated that constructs such as trust should be studied as it is related to respect.

Permission to use the Respect for Partner Scale was obtained from Frei and appears in Appendix I. The Briefer Version which contains 20 items as opposed to the 45 item RPS, was chosen for this study in a suggestion by J. Frei (personal communication, March 8, 2005) who stated, "I have used the shortened version in subsequent work with married individuals, and the strong psychometric properties were replicated – however I have not yet published this research." Frei's research (2004) consisted of two studies: Study One was comprised of 52 married students (25 men, 27 women) whose average scores on the 20-item scale ranged from 3.15 to 7.0 with a mean of 6.2 and a standard deviation of .75. Study Two was comprised of 109 married students (52 men, 57 women) whose average scores on the 20-item scale ranged from 3.0 to 7.0 with a mean of 5.9 and a standard deviation of .91.

Revised versions of the RPS for principals and teachers were developed to reflect the research questions. Frei reviewed the revised RPS instruments for principals and teachers and stated they reflected the research questions and did not change the nature of

the instrument. The RPS revised for principals appears in Appendix G and the RPS revised for teachers appears in Appendix H. Permission to use the inventory was obtained from Frei and appears in Appendix I.

Subjects in this study were asked to respond to a demographic questionnaire (Appendix J) which includes age, gender, building level as teacher/principal, number of years as teacher/principal, highest degree earned, gender, formal/informal exposure to adult education/learning concepts and an open-ended question on what adult learning is as far as the respondent is considered.

Statistical Analysis

In an experiment where the type of independent variable is a nominal measure and the type of dependent variable is an interval measure there are three types of statistical analysis: analysis of variance, multiple regression and discriminant analysis. The analysis of data for this study utilized ANOVA or MANOVA. "It is suitable to experiments since the independent variable – treatments – is usually a nominal variable and the dependent variable is usually intervally measured scores" (Galfo, 1983, p. 206). SPSS 13.0 was the statistical software package used to analyze data.

Protection of Human Rights

The IPI and RPS instruments were coded to protect the identity of individuals within the study and only the statistician knows the identity of the individuals within the study. The IPI, RPS and demographic information were kept in a locked filing cabinet of the researcher. Data and results were identified by numbers only in the sample and not by the identities of individuals. A letter of consent (Appendix A) will be completed by subjects.

Summary

Principals, as learning leaders, can utilize the principles of adult learning to help create the conditions for learning in school-based staff development. Trust and respect are two factors in creating conditions for learning that the literature cites consistently and are key components in relationships. To determine the attitudes of principals and teachers in the areas of trust and respect in school-based staff development, this study utilized descriptive or causal-comparative research.

The population for this study came from teachers and principals in a metropolitan suburban school district. Subjects completed two instruments, the Instructional Perspectives Inventory with revisions for principals and teachers, and the Respect for Partner Scale with revisions for principals and teachers. A demographic information sheet was also completed by the subjects. The IPI measures seven factors identified as beliefs, feelings and behaviors of adult educators. The RPS measures respect for partners in close interpersonal relationships.

Pearson product moment, MANOVA, ANOVA, and t-tests were used to determine if there are were any relationships between the independent and dependent variables and the extent, if any, to which the relationships show a variance with the dependent variables. Subjects completed a letter of consent for their participation. Identities of the subjects were protected through a coding of the instruments and data and results were identified by numbers only in the sample and not by the identities of individuals.

CHAPTER IV

Results

This chapter reviews pertinent results of the study and will discuss how the results answer the research questions. Results are presented in four sections: demographic data; pertinent study data; research questions and data; and, summary.

The purpose of this study was to contribute to the knowledge regarding the competencies of principals in creating the conditions for learning in school-based staff development. Principals, as learning leaders, can utilize the principles of adult learning to help create the conditions for learning in school-based staff development. Of primary importance to creating these conditions for learning are trust and respect between principals and teachers and teachers and principals. This study was designed to answer three research questions. These questions will be discussed with the data individually.

Research Question One and Null Hypothesis

1. Is there a relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development?

H_o There is no relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development.

Research Question Two

2. What is the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning?

Research Question Three

3. What do teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning?

Listed below in Table 6 is a chronology of the initial distribution of the questionnaire.

Table 6 *Chronology of Initial Distribution of Questionnaire*

Date	Communication	Sent To	Purpose
05/05/05	Email memo	Principals	Asking for assistance in completing research questionnaires and distributing research questionnaires for teachers
05/11/05	Packet with written memo in interschool mail	Principals	Principals to receive: cover memo, instructions to complete and return questionnaire, informed consent for participation in research, IPI, RPS, demographic questionnaire
05/11/05	Email memo	Secretaries	Asking for assistance in distributing research questionnaires for teachers.
05/13/05	Packet with written memo in interschool mail	Principals & Secretaries	Principals and secretaries to distribute to teachers: cover memo, instructions to complete and return questionnaire, informed consent for participation in research, IPI, RPS, demographic questionnaire
05/23/05	Email memo	Principals & Teachers	Reminder for principals and teachers to complete questionnaires and return them
05/23/05	Written memo for teachers	Principals	Post memo at mailboxes as reminder to complete questionnaires and return
05/26/05	Email memo	Teachers	Reminder to complete questionnaires and return

After the initial distribution of questionnaires, a review of returned questionnaires was completed and a second group of questionnaires was distributed. A chronology of the

second distribution is listed in Table 7.

Table 7 *Chronology of Second Distribution of Questionnaire*

Date	Communication	Sent To	Purpose
05/30-06/03/05	None	None	Review of completed and returned questionnaires
06/13/05	Packet with written memo delivered	Principals & Teachers	Principals to distribute to teachers: cover memo, instructions to complete and return questionnaire, informed consent for participation in research, IPI, RPS, demographic questionnaire
06/20/05	Written memo	Principal & Teachers	Reminder to complete questionnaires and return

Of the 761 teacher questionnaires sent out, 22.20% (or 169) were returned. Of the 169 questionnaires returned, 2.99% were from pre-kindergarten, 68.26% were from elementary (K-6), 13.77% were from middle school, and 14.98% were from senior high school. The rate of questionnaire return in relationship to the total number of teachers at each teaching level was: 20.83% of pre-kindergarten, 26.22% of elementary (K-6), 20.00% of middle school (7, 8), 13.23% of senior high school (9-12), and 15.79% of all secondary school teachers. Building return rates ranged from 15.15% to 35.71% at the pre-kindergarten through elementary levels, from 11.90% to 25.00% at the middle school level, and from 11.63% to 14.56% at the senior high school level. Of the 30 principal questionnaires sent out, 100% were returned.

In a meeting with another district administrator, information was related that some secondary teachers at a specific building were afraid to complete the questionnaire for fear the information would be linked to them and retaliatory measures taken by the administration. This information was noted for future reference with results of data.

Demographic Data

The population for this study included principals and teachers in a suburban Missouri school district. A total of 30 principals participated in the study. The word principal describes a category called principal which included two supervisors of early childhood education, 11 elementary principals, three elementary assistant principals, three middle school principals, three middle school assistant principals, two senior high school principals, and six senior high school assistant principals. The number of teachers participating in the study was 169 including five early childhood education, 111 elementary, 24 middle school, and 25 senior high school teachers. Four teacher questionnaires were missing a specific grade level and are indicated in the demographic data. Both principals and teachers were asked to complete a demographic questionnaire which included factors of age, gender, building level, years as principal or teacher, and highest degree completed.

The demographic data of principals who completed questionnaires is listed in Table 8. Data includes age, gender, building level, years as principal, and highest degree.

Table 8 *Demographic Data of Principals*

Variable	Frequency	Percent	Valid Percent	Cumulative Percent
Age				
20-29 years	1	3.3	3.3	3.3
30-39 years	15	50.0	50.0	53.3
40-49 years	8	26.7	26.7	80.0
50-59 years	6	20.0	20.0	100.0
60+ years	0	0.0	0.0	100.0
Total	30	100.0	100.0	
Gender				
Male	15	50.0	50.0	50.0
Female	15	50.0	50.0	100.0
Total	30	100.0	100.0	100.0
Building Level				
Grade PK	2	6.7	6.7	6.7
Grade K-6	14	46.7	46.7	53.3
Grade 7, 8	6	20.0	20.0	73.3
Grade 9-12	8	26.7	26.7	100.0
Total	30	100.0	100.0	
Years as Principal				
0-5 years	15	50.0	50.0	50.0
6-10 years	8	26.7	26.7	76.7
11-15 years	4	13.3	13.3	90.0
16-20 years	2	6.7	6.7	96.7
21+ years	1	3.3	3.3	100.0
Total	30	100.0	100.0	
Highest Degree				
Bachelor's	1	3.3	3.3	3.3
Master's	18	60.0	60.0	63.3
Specialist	10	33.3	33.3	96.7
Doctorate	1	3.3	3.3	100.0
Total	30	100.0	100.0	

The demographic data of teachers who completed questionnaires is indicated in Table 9. Data includes age, gender, building level, years as teacher, and highest degree.

Table 9 *Demographic Data of Teachers*

Variable	Frequency	Percent	Valid Percent	Cumulative Percent
Age				
20-29 years	23	13.6	14.0	14.0
30-39 years	58	34.3	35.4	49.4
40-49 years	47	27.8	28.7	78.0
50-59 years	35	20.7	21.3	99.4
60+ years	1	0.6	0.6	100.0
Total	164	97.0	100.0	
Missing	5	3.0		
Total	169	100.0		
Gender				
Male	33	19.5	19.6	19.6
Female	135	79.9	80.4	100.0
Total	168	99.4	100.0	
Missing	1	.6		
Total	169	100.0		
Building Level				
Grade PK	5	3.0	3.0	3.0
Grade K-6	111	65.7	67.3	70.3
Grade 7, 8	24	14.2	14.5	84.8
Grade 9-12	25	14.8	15.2	100.0
Total	165	97.6	100.0.	
Missing	4	2.4		
Total	169	100.0		
Years as Teacher				
0-5 years	24	14.2	14.7	14.7
6-10 years	54	32.0	33.1	47.9
11-15 years	38	22.5	23.3	71.2
16-20 years	18	10.7	11.0	82.2
21+ years	29	17.2	17.8	100.0
Total	163	96.4	100.0	
Missing	6	3.6		
Total	169	100.0		
Highest Degree				
Bachelor's	26	15.4	16.0	16.0
Master's	130	76.9	80.2	96.3
Specialist	6	3.6	3.7	100.0
Doctorate	0	0.0	0.0	
Total	162	95.9	100.0	
Missing	7	4.1		
Total	169	100.0		

An additional portion of the demographic questionnaire for principals and teachers included questions about their formal and/or informal exposure to adult learning concepts and how they received the exposure to adult learning. Participants were asked to circle all that applied and could choose from: no exposure, reading in a book or journal article, bachelor's level college/university course, master's level college/university course, doctorate level college/university course, workshop on adult learning, conference on adult learning, mentor, observation, professional dialogue, reflection, or gut feelings about what I ought to do as a teacher/principal. Table 10 shows the percentage of principals who have had formal and/or informal exposure to adult learning and the source of the exposure.

Table 10 *Exposure to Adult Learning by Source for Principals*

Source	Frequency	Percent
No exposure	0	0.0
Reading in a book or journal article	20	66.7
Bachelor's level college/university course	12	40.0
Master's level college/university course	17	56.7
Doctorate level college/university course	5	16.7
Workshop on adult learning	7	23.3
Conference on adult learning	5	16.7
Mentor	12	40.0
Observation	19	63.3
Professional dialogue	21	70.0
Reflection	16	53.3
Gut feelings about what I ought to do as a teacher/principal	18	60.0

N=30

Principals received the greatest exposure to adult learning from reading in a book or journal article-66.7%, master's level college/university course-56.7%, observation-63.3%, professional dialogue-70.0%, reflection-53.3%, and gut feelings about what I ought to do as a teacher/principal-60.0%.

Table 11 presents the percentage of teachers who have had formal and/or informal exposure to adult learning and the source of the exposure.

Table 11 *Exposure to Adult Learning by Source for Teachers*

Source	Frequency	Percent
No exposure	25	14.8
Reading in a book or journal article	75	44.4
Bachelor's level college/university course	73	43.2
Master's level college/university course	106	62.7
Doctorate level college/university course	2	1.2
Workshop on adult learning	36	21.3
Conference on adult learning	23	13.6
Mentor	43	25.4
Observation	94	55.6
Professional dialogue	67	39.6
Reflection	71	41.9
Gut feelings about what I ought to do as a teacher/principal	86	50.9

N=169

Teachers received the greatest exposure to adult learning from master's level college/university course-62.7%, observation-55.6%, and gut feeling about what I ought to do as a teacher-50.9%. Common elements of exposure to adult learning between principals and teachers are master's level college/university course, observation, and gut feelings about what I ought to do as a principal or teacher.

Testing of Assumptions

Several tests of assumptions were completed to determine the following: unidimensionality, normality, simple and multivariate outliers, missing data, and homogeneity of variances. The results of these tests form the basis for the kind of tests to use with the research question and hypotheses.

The IPI is a measure of self-reported beliefs, feelings, and behaviors of adult educators with multiple indicator variables (Henschke, 1994). To determine if these

variables measure the same thing, Cronbach's *a* (Alpha) was computed as 0.810 for the seven sub-areas of the IPI. Since *a*>0.600 the items are considered unidimensional and are measuring the same thing.

A review of the distribution for normality was completed through histograms, skewness, and kurtosis. The value of skewness and kurtosis in a normal distribution is zero. Table 12 shows the skewness, kurtosis, and their standard errors for all participants.

Table 12 *Skewness and Kurtosis of IPI and RPS for All Participants*

Variable	Skewness	*SE*	Kurtosis	*SE*
Teacher empathy with learners	-0.999	.175	0.489	.347
Teacher trust of learners	-1.243	.175	1.173	.347
Planning and delivery of instruction	-0.689	.175	-0.110	.347
Accommodating learner uniqueness	-0.862	.175	0.489	.347
Teacher insensitivity toward learners	0.518	.174	-0.724	.346
Experience based learning techniques (learner-centered learning processes)	-0.352	.174	-0.188	.346
Teacher-centered learning processes	-0.522	.174	-0.040	.346
RPS	-0.118	.175	-0.061	.347

A common rule-of-thumb test for normality is to divide the descriptive statistics of skewness and kurtosis by their standard errors (Garson, 2006b). The skewness and kurtosis ratio of the data for all participants is shown in Table 13. These ratios should be

Table 13 *Skewness and Kurtosis Ratio of IPI and RPS for All Participants*

Variable	Skewness Ratio	Kurtosis Ratio
Teacher empathy with learners	-5.709	1.409
Teacher trust of learners	-7.103	3.380
Planning and delivery of instruction	-3.937	-0.317
Accommodating learner uniqueness	-4.926	1.413
Teacher insensitivity toward learners	2.977	-2.092
Experience based learning techniques (learner-centered learning processes)	-2.023	-0.543
Teacher-centered learning processes	-3.000	-0.116
RPS	-0.674	-0.176

within the +2 to -2 range for normality (Garson, 2006b). A review of the data shows only the RPS is within the normal range for skewness and all IPI sub-areas are within the normal range for kurtosis except teacher trust of learners and teacher insensitivity toward learners. Only the RPS is within the normality range for both skewness and kurtosis.

Table 14 shows the skewness and kurtosis ratios for principals and teachers. A review of the data reveals normal skewness for: (a) teachers in experience based learning techniques and the RPS, and (b) principals in all areas except teacher empathy with learners. The data also reveals normal kurtosis for: (a) teachers in all areas, and (b) principals in all areas except teacher empathy with learners.

Table 14 *Skewness and Kurtosis Ratio of IPI and RPS for Teachers and Principals*

Variable	Teacher		Principal	
	Skewness	Kurtosis	Skewness	Kurtosis
Teacher empathy with learners	-4.612	0.629	-3.964	3.547
Teacher trust of learners	-5.532	1.637	-0.027	-0.492
Planning and delivery of instruction	-3.500	-0.757	-0.476	-0.192
Accommodating learner uniqueness	-3.995	0.672	-1.916	1.668
Teacher insensitivity toward learners	4.059	-0.931	0.705	0.724
Experience based learning techniques (learner-centered learning processes)	-1.369	-1.099	-0.576	-1.357
Teacher-centered learning processes	-2.519	-0.625	-1.966	1.508
RPS	-0.787	-0.453	1.340	0.548

Collectively distributions for principals and teachers are considered non-normal except for the RPS based upon histograms, skewness, and kurtosis. Separately, normality occurred for principals in seven of the eight dependent variables and for teachers in two of the eight dependent variables.

In an analysis of the simple outliers by participant and sub-area, one participant had simple outlier scores in four of the five sub-areas. Two participants had simple

outlier scores in two sub-areas, and one participant had outlier scores in three sub-areas. An analysis of *z*-scores was made for the dependent variables by participant. A *z*-score that is an extreme outlier falls outside of ± 3 standard deviations, or 99% confidence (Clark, 2005). Table 15 also shows results of simple outliers. Results reveal five of the

Table 15 *Missing and Outlier Values of IPI and RPS for All Participants*

Variable	Simple Outliers (extreme low)
Teacher empathy with learners	4
Teacher trust of learners	12
Planning and delivery of instruction	2
Accommodating learner uniqueness	7
Teacher insensitivity toward learners	0
Experience based learning techniques (learner-centered learning processes)	0
Teacher-centered learning processes	3
RPS	0

seven sub-areas of the IPI have extreme low scores.

Eight *z*-scores were identified as extreme: four *z*-scores were between -3 and -3.49 standard deviations and four *z*-scores were between -3.5 and -4 standard deviations. The following sub-areas of the IPI each contained two outliers: teacher empathy with learners, teacher trust of learners, planning and delivery of instruction, and accommodating learner uniqueness. The four participants with simple outlier scores were all secondary school teachers, three from middle school, and one from high school. The three middle school teachers all taught at the same building.

Garson (2006b) indicates outliers can occur due to data entry, missing values, an unintended sampling, or a true non-normal distribution. The data entry was reviewed for accuracy and found to be correct. A review of the actual data showed these scores were not attributed to missing values. The sample was selected from current teachers and

principals and non-population members did not exist. What is significant is that three of the four teachers taught at the same building. It is possible that a subpopulation could exist within the group called teachers. The subpopulation may exist due to a personality issue or a personal or professional conflict with the principal. In this case, when the teacher with an "axe to grind" has an opportunity, he or she takes full advantage of it. The last reason outliers exist is they are a true non-normal distribution.

Sheskin (1997) identifies instances when there is strong rationale for dropping outlier scores. They include: (a) a reason to believe an error was made in the scoring of the question, (b) a reason to believe the subject failed in part to follow directions or "other behavior on the part of the subject indicating a lack of cooperation and/or attention to the experiment" (p. 175) which resulted in the score, and (c) a reason to believe the score resulted from the researcher's failure to utilize the correct protocol in obtaining the subject's data. Even though the scores in question may reflect the individual teacher's true responses the eight simple outlier responses were removed based on the following: (a) the extremeness of the scores (z-scores ranging from -3 to -3.8), (b) an unintended sampling based upon knowledge three of the four worked in the same building creating a subpopulation or as Sheskin states "other behavior indicating a lack of cooperation and/or attention to the experiment" (p. 175).

Multivariate outliers were analyzed using Mahalanobis distance cutoff which is computed from a regression using Chi-square ($?^2$). The Mahalanobis distance computed from the $?^2$ was 59.703 with *df*=30 at the .001 level. One teacher score and three scores from the principal group exceeded the $?^2$ cutoff. One member of the principal group had a score of 67.51and one teacher had a score of 87.91. SPSS (2000) recommends looking

for "outliers that are relatively large especially in non-normal distributions" (p. 41). These scores were left in the analysis as the next two scores were relatively large.

Scores of two members of the principal group (119.92 and 119.92) were two times the calculated Mahalanobis cutoff of 59.703. Garson (2006a) states "the smaller the Mahalanobis distance, the closer the case is to the group centroid and the more likely it is to be classed as belonging to that group" (Interpreting the discriminant functions section, para.5). He continues that a score "more than 1.96 Mahalanobis distance units from the centroid has less than .05 chance of belonging to the group represented by the centroid" (Interpreting the discriminant functions section, para.5).

These scores were examined and compared to other scores in the principals group. Their impact on the principal group revealed an inflation of overall scores. A review of the responsibilities for these two members of the principal group who did not have the title of principal showed similar supervisory functions with other members of the principal group, but their day-to-day supervisory responsibilities did not rise to the same level as other members of the principal groups. The scores of the two participants were eliminated from the computation based upon their Mahalanobis distance cutoff scores being two times greater than the calculated $?^2$ which distinguished themselves as a subpopulation group of the principal group.

An analysis of missing data revealed one case (0.5%) missing from each sub-area of the IPI and three cases (1.5%) were missing from the RPS. These cases were automatically excluded by SPSS in the analysis.

Homogeneity was tested as statistics were computed. Levene's test of homogeneity of variance was used to test the homogeneity of variances. When the

Levene statistic was significant at the .05 level or better, Games-Howell post-hoc test was computed for additional significance. When the Levene statistic was not significant, Tukey HSD was computed for additional significance. Box's M test was used to test homogeneity of variance/covariance for the MANOVA.

Based upon the above information, the scores of two principals were eliminated from data analysis due to being multivariate outliers. Eight scores of teachers were eliminated from data analysis due to being simple outliers. While the distribution is not normal, scores appear to be representative of this sample and may indeed be representative of the relationship between teachers and principals as it relates to the dependent variables.

The use of parametric statistics utilizes three main assumptions: (a) the scores in the population are normally distributed around the mean, (b) population variances of the comparison groups are equal, and (c) scores analyzed are taken from a measure that has equal intervals. With the current data the first two assumptions are violated, scores are negatively skewed and the variances differ between the groups in question. In this particular case, nonparametric statistics would be used since there are violations of the assumptions and nonparametric statistics "make fewer of the underlying assumptions about the nature of the distribution of scores" (Moore, 1983, p. 278).

Borg and Gall (1989) state even though the interval score assumption is met and the assumptions for the normal distribution and population variances are not met, "we still advise you to use one of the parametric statistics" (p. 561). They believe parametric should be used over nonparametric statistics due to: (a) moderate departures from the assumptions mentioned has very little impact on the values generated by parametric

statistics; (b) nonparametric statistics need larger samples than parametric statistics to be as powerful; and, (c) many problems in educational research do not have a nonparametric test available. Glass, Peckham, and Sanders (1972) report violations of the assumptions are unimportant with respect to parametric tests. "The *t*-test and ANOVA are robust with respect to violations of the assumption of homogeneity of variances provided equal subjects in each comparison group are maintained" (Moore, 1983, p. 278).

Wendorf (2004) believes nonparametric statistics should be used when: (a) dependent variables are not interval but ordinal; (b) data distribution is skewed for the dependent variable; and, (c) unequal variances exist between groups. He suggests that when interval data exists in the last two cases, parametric assumptions are violated and the data should be treated as ordinal for nonparametric statistics.

The decision was made to proceed with both parametric and nonparametric statistics. While assumptions for parametric statistics are violated, results can still be robust in spite of the violations. To balance these findings and not commit a Type I error, analogous nonparametric statistical tests will be used as well. Parametric statistics will be presented first followed by their non-parametric counterparts. A comparison of the statistics could then be made to determine if null hypotheses are true or false and minimize Type I and Type II errors. In addition, in this case when extreme scores may affect the mean, both the mean and median scores will be reported.

Descriptive Statistics

Data in this section will contain descriptive statistics. Three different sets of scores for the IPI were calculated. The first is a total mean of all points possible on the IPI; the second are means for the seven sub-areas of the IPI (teacher empathy with

learners, teacher trust of learners, planning and delivery of instruction, accommodating learner uniqueness, teacher insensitivity toward learners, experience-based learning techniques, and teacher-centered learning processes); and, third is a grand total mean for all of the sub-areas combined on the IPI. One score was calculated for the RPS which is a grand total mean for the instrument.

The total means and standard deviations of all points possible on the IPI for principals and teachers were calculated and are listed in Table 16. Areas of note are the difference in the range of total mean scores from minimum to maximum between the principals and teachers. Teacher total mean scores have a greater range between the minimum and maximum than the principals' scores.

Table 16 *IPI Total Mean and SD for Principals and Teachers*

Position	*N*	Minimum	Maximum	*M*	*Mdn*	*SD*
Principals	28	133	162	146.536	148.000	8.4612
Teachers	167	77	164	129.036	132.000	18.7475

To determine where scores of principals and teachers would rate on Stanton's (2005) andragogical principles category levels for the IPI, a proportional adjustment to the scale would need to be made as Stanton's use of andragogical principles category levels is based upon an overall IPI score generated from a five-level scale (see Table 4, p. 54, Chapter 3). Little if any change of the scale is effected because the items of the IPI are the same. The only difference is the measurement of the scale from a five-level to a four-level scale. Based upon proportional factors, the andragogical principles category

levels for a four-level scale are shown in Table 17.

Table 17 *Original and Revised Andragogical Principles Category Levels*

Category Levels	Percentage	Stanton IPI Score[a]	Revised IPI Score[b]
High above average	89-100	199-225	159-180
Above average	82-89	185-198	148-158
Average	66-81	149-184	119-147
Below Average	55-65	124-148	99-118
Low below average	54	<123	<98

[a]Based upon five-level scale; [b]based upon four-level scale.

Principal's total score mean of 146.536 is in the upper half of the average category level and the median score of 148.000 is in the lower half of the above average category level. Teacher's total score mean of 129.036 and the median score of 132.000 are both in the lower half of the average category level.

Means, medians, and standard deviations of the seven sub-areas for principals for all independent variables for principals is shown in Table 18. Means, medians, and

Table 18 *IPI Sub-area Means, Medians, and SD for Principals*

Position	*N*	Min.	Max.	*M*	*Mdn*	*SD*
Principals						
Teacher empathy with learners	28	2.800	4.000	3.750	3.800	.3061
Teacher trust of learners	28	3.364	4.000	3.669	3.636	.1588
Planning and delivery of instruction	28	2.200	4.000	3.271	3.200	.4752
Accommodating learner uniqueness	28	2.571	4.000	3.495	3.571	.3146
Teacher insensitivity toward learners	28	1.429	3.429	2.429	2.357	.4399
Experience based learning techniques (learner-centered learning processes)	28	2.200	3.400	2.814	2.900	.3482
Teacher-centered learning processes	28	2.200	3.600	3.107	3.200	.3150
Total	28	2.956	3.600	3.256	3.289	.1880

standard deviations for principals and teachers were computed on the seven sub-areas of

the IPI.

Table 19 shows the means, medians, and standard deviations of the seven sub-areas for teachers for all independent variables. Means, medians, and standard deviations of the RPS for principals and teachers for all independent variables are shown in Table 20.

Table 19 *IPI Sub-area Means, Medians, and SD for Teachers*

Position	*N*	Min.	Max.	*M*	*Mdn*	*SD*
Teachers						
Teacher empathy with learners	166	1.200	4.000	3.182	3.200	.6678
Teacher trust of learners	166	1.455	4.000	3.279	3.409	.6125
Planning and delivery of instruction	166	1.200	4.000	3.101	3.200	.6789
Accommodating learner uniqueness	166	1.571	4.000	3.120	3.143	.5532
Teacher insensitivity toward learners	168	.857	3.286	1.684	1.571	.5988
Experience based learning techniques (learner-centered learning processes)	168	.800	4.000	2.613	2.600	.6915
Teacher-centered learning processes	168	1.800	4.000	3.052	3.000	.4166
Total	167	1.711	3.644	2.867	2.933	.4166

Table 20 *RPS Mean, Median, and SD for Principals and Teachers*

	N	Minimum	Maximum	*M*	*Mdn*	*SD*
Principals	28	3.450	4.500	3.844	3.821	.2424
Teachers	166	3.050	4.450	3.797	3.800	.3029

Research Questions and Data

The purpose of this study was to contribute to the knowledge regarding the competencies of principals in creating the conditions for learning in school-based staff development. Principals, as learning leaders, can utilize the principles of adult learning to help create the conditions for learning in school-based staff development. Of primary importance to creating these conditions for learning are trust and respect between

principals and teachers and teachers and principals. This study was designed to answer three research questions. These questions will be discussed with the data individually.

Data for Research Question One and Null Hypothesis

1. Is there a relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development?

H_o There is no relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development.

A Pearson product moment correlation coefficient was used to examine the relationship between scores on the IPI and RPS and scores on independent variables, specifically those independent variables that delineate teachers and principals as groups. The independent variables which delineate teachers and principals are job classification (teachers and the group called principals) and job classification 2 (teachers and the group called principals separated into principals, assistant principals, and supervisors).

Significant positive correlations were found between teacher empathy with learners and job classification (principals and teacher) ($r=.304$, $p<.01$); teacher trust of learners and job classification ($r=.234$, $p<.01$); accommodating learner uniqueness and job classification ($r=.244$, $p<.01$); teacher insensitivity toward learner and job classification ($r=.412$, $p<.01$); and, the grand total IPI and job classification ($r=.330$, $p<.01$). Significant positive correlations were found between teacher empathy with learners and job classification 2 ($r=.276$, $p<.01$); teacher trust of learners and job classification 2 ($r=.216$, $p<.01$); accommodating learner uniqueness and job classification

2 ($r=.225$, $p<.01$); teacher insensitivity toward learner and job classification 2 ($r=.388$, $p<.01$); and, the grand total IPI and job classification 2 ($r=.308$, $p<.01$).

Since the grand total of the IPI is a summation of the seven IPI sub-areas, no further data analysis was completed. Additional correlations for demographic factors are listed in Table 21 and will be discussed in a different portion of this chapter.

Table 21 *Significant Pearson Correlations of All Subjects between DV and IV*

Variable	Job Class	Job Class 2	Age	Gender	Yrs Tchr or Prin	Highest Degree	Building Level	Location	AL-Doct Course	AL-Wrkshp	AL-No Expo	AL-Obs
Teacher empathy with learners	.304** [a]	.276** [a]				.228** [b]			-.191** [a]		.145* [a]	
Teacher trust of learners	.234** [a]	.216** [a]							-.143* [a]			
Planning and delivery of instruction									-.157* [a]	-.171* [a]		
Accommodating learner uniqueness	.244** [a]	.225** [a]							-.172* [a]			
Teacher insensitivity toward learners	.412** [c]	.388** [c]		-.202* [d]		.144* [e]	.251** [f]	-.217** [c]				
Experience-based learning techniques			.149* [g]							-.187** [c]	.146* [c]	
Teacher-centered learning processes												
Grand Total IPI	.330** [d]	.308** [d]				.163* [e]			-.188** [d]	-.161* [d]	.162* [d]	
RPS												.159* [a]

** Correlation is significant at the 0.01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed). [a] N=194, [b] N=188, [c] N=196, [d] N=195, [e] N=190, [f] N=193, [g] N=192.

A Spearman's Rho correlation was used to examine the relationship between scores on the IPI and RPS and scores on independent variables, specifically those independent variables that delineate teachers and principals as groups. The independent variables which delineate teachers and principals are job classification (teachers and the group called principals) and job classification 2 (teachers and the group called principals separated into principals, assistant principals, and supervisors). Significant positive correlations were found between teacher empathy with learners and job classification (principals and teacher) ($r=.343$, $p<.01$); teacher trust of learners and job classification ($r=.237$, $p<.01$); accommodating learner uniqueness and job classification ($r=.264$, $p<.01$); teacher insensitivity toward learner and job classification ($r=.406$, $p<.01$); and, the grand total IPI and job classification ($r=.362$, $p<.01$). Significant positive correlations were found between teacher empathy with learners and job classification 2 ($r=.339$, $p<.01$); teacher trust of learners and job classification 2 ($r=.236$, $p<.01$); accommodating learner uniqueness and job classification 2 ($r=.262$, $p<.01$); teacher insensitivity toward learner and job classification 2 ($r=.404$, $p<.01$); and, the grand total IPI and job classification 2 ($r=.360$, $p<.01$).

Since the grand total of the IPI is a summation of the seven IPI sub-areas, no further data analysis was completed. Additional correlations for demographic factors are listed in Table 22 and will be discussed in a different portion of this chapter.

Table 22 *Significant Spearman's Correlations of All Subjects between DV and IV*

Variable	Job Class	Job Class 2	Age	Gender	Yrs Tchr or Prin	Highest Degree	Building Level	Location	AL-Doct Course	AL-Wrkshp	AL-No Expo	AL-Obs	AL-Prof Dial	AL-Total
Teacher empathy with learners	.343** [a]	.339** [a]				.247** [b]			-.239** [a]		.174* [a]			
Teacher trust of learners	.237** [a]	.236** [a]							-.170* [a]				-.141* [a]	
Planning and delivery of instruction									-.169* [a]	-.160* [a]				.153* [a]
Accommodating learner uniqueness	.264** [a]	.262** [a]			-.151* [h]				-.195** [a]					
Teacher insensitivity toward learners	.406** [c]	.404** [c]		-.203** [d]			.244** [f]	-.217** [c]						
Experience-based learning techniques			.162* [g]							-.173** [c]				
Teacher-centered learning processes								-.151* [c]						
Grand Total IPI	.362** [d]	.360** [d]			-.143* [i]	.151* [e]			-.205** [d]	-.166* [d]	.199** [d]		-.149* [d]	
RPS												.161* [a]		

** Correlation is significant at the 0.01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed). [a] N=194, [b] N=188, [c] N=196, [d] N=195, [e] N=190, [f] N=193, [g] N=192, [h] N=189, [i] N=191.

Comparisons between Pearson and Spearman correlations reveal 27 identical correlations. Of the 27 identical correlations, three Spearman correlations were lower than the Pearson, one was identical, and 23 were higher with the maximum difference being .063. Pearson correlations generated two correlations not found in Spearman: teacher insensitivity and highest degree; and, experience-based learning techniques and adult learning-no exposure. Spearman correlations generated six correlations not found in Pearson: teacher trust of learners and adult learning-professional dialogue; planning and delivery of instruction and adult learning-total; accommodating learner uniqueness and years as teacher or principal; teacher insensitivity toward learners and job class/building level; teacher-centered learning processes and location; and, grand total IPI and years as teacher or principal/adult learning-professional dialogue.

These correlations suggest job classification (composed of teachers and the group called principals) is associated with teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners. Correlations also suggest job classification 2 (composed of teachers, principals, assistant principals, and supervisors) is associated with teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners. Additional analyses were completed to examine the relationship job classification had with teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners.

A MANOVA on job classification (teachers and the group called principals) was completed with the dependent variables which had been identified as having a significant correlation. The grand total of the IPI was not included as it is a variable that is

reproduced from other dependent variables. Scores from 165 teachers and 28 administrators were used in the MANOVA. Box's M test of equality of covariance was significant F(10,10053.078)=5.320, $p < .01$ indicating an assumption had been violated and the covariance matrices differ. The multivariate test for Job Classification revealed a Wilks' ? =.639, F (4,188)=26.530, $p < .01$ indicating the effect of job classification on these dependent variables is significant. Levene's Test of Equality of Error Variances suggested that equal variances could not be assumed for teacher empathy with learners (F=16.223, $p < .05$), teacher trust of learners (F=23.712, $p < .05$), accommodating learner uniqueness (F=7.738, $p < .05$), and teacher insensitivity toward learners (F=5.136, $p < .05$), therefore t was corrected for equal variances not assumed. Table 23 presents the test of between subjects of the MANOVA for the IPI sub factors using the independent variable of job classification. All variables were significant with job classification.

Table 23 *MANOVA of IPI Sub-areas using Job Classification*

Variable	*df*	*F*	*p*
Teacher empathy with learners	1	19.590**	.000
Teacher trust of learners	1	10.962**	.001
Accommodating learner uniqueness	1	11.959**	.000
Teacher insensitivity toward learners	1	43.147**	.000

** Significant at the 0.01 level.

Independent samples t-test were used to examine differences between job classification and teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners for their mean scores on the IPI. Levene's Test of Equality of Error Variances suggested that equal variances could not be assumed for teacher empathy with learners (F=16.547, $p < .05$), teacher trust of learners (F=24.100, $p < .05$), accommodating learner uniqueness

(F=8.104, $p< .05$), and teacher insensitivity toward learners (F=5.743, $p< .05$), therefore *t* was corrected for equal variances not assumed.

Significant differences (*t*[79.380]=-7.314, p<.01) occurred between teachers (Mean=3.182, SD=.668) and principals (Mean=3.750, SD=.306) for scores on the sub-area teacher empathy with learners of the IPI. Significant differences (*t*[163.746]=-6.928, p<.01) occurred between teachers (Mean=3.279, SD=.613) and principals (Mean=3.669, SD=.159) for scores on the sub-area teacher trust of learners of the IPI. Significant differences (*t*[59.843]=-5.117, p<.01) occurred between teachers (Mean=3.112, SD=.553) and principals (Mean=3.495, SD=.315) for scores on the sub-area accommodating learner uniqueness of the IPI. Significant differences (*t*[45.551]=-7.832, p<.05) occurred between teachers (Mean=1.684, SD=.599) and principals (Mean=2.429, SD=.440) for scores on the sub-area teacher insensitivity toward learners of the IPI.

Scores for teacher empathy with learners of the IPI were calculated, with mean ranks for teachers (Mean Rank=89.69) being much lower than principals (Mean Rank=143.82). A Kruskal-Wallis H test indicated a significant difference between the groups on the measure of teacher empathy with learners, $?^2$ (1) =22.647, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for teacher empathy with learners between teachers and principals (U=1027.000, p<.01). These findings suggest that the category of principal describe themselves as having more teacher empathy with learners than teachers believe their principals have toward them.

Scores for teacher trust of learners of the IPI were calculated, with mean ranks for teachers (Mean Rank=92.06) being much lower than principals (Mean Rank=129.77). A

Kruskal-Wallis H test indicated a significant difference between the groups on the measure of teacher empathy with learners, $?^2$ (1) =10.872, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for teacher trust of learners between teachers and principals (U=1420.500, p<.01). These findings suggest that the category of principal describe themselves as having more teacher trust of learners than teachers believe their principals have toward them.

Scores for accommodating learner uniqueness of the IPI were calculated, with mean ranks for teachers (Mean Rank=91.46) being much lower than principals (Mean Rank=133.32). A Kruskal-Wallis H test indicated a significant difference between the groups on the measure of teacher empathy with learners, $?^2$ (1) =13.422, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for accommodating learner uniqueness between teachers and principals (U=1321.500, p<.01). These findings suggest that the category of principal describe themselves as accommodating learner uniqueness more than teachers believe their principals actually do toward them.

Scores for teacher insensitivity toward learners of the IPI were calculated, with mean ranks for teachers (Mean Rank=89.16) being much lower than principals (Mean Rank=154.55). A Kruskal-Wallis H test indicated a significant difference between the groups on the measure of teacher empathy with learners, $?^2$ (1) =32.089, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for teacher insensitivity toward learners between teachers and principals (U=782.500, p<.01). These findings

suggest that the category of principal describe themselves as having more teacher insensitivity toward learners than teachers believe their principals have toward them.

Comparisons of parametric and nonparametric scores reveal levels of significance for both methods for the variables teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners as it relates to job classification. Levels of significance varied for the variable teacher insensitivity toward learners between teacher and principals on the *t*-test ($p<.01$) and Mann Whitney U test ($p<.05$).

To further examine differences in job classification, an ANOVA was completed for the dependent variables teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners and the independent variable job classification 2. Job classification 2 subdivides the principal group into principal, assistant principal, and supervisor. In combination with teacher, job classification 2 has four variables. Levene's Test of Homogeneity of Variances suggested that equality of group variances could not be assumed for teacher empathy with learners ($p< .05$), teacher trust of learners ($p< .05$), accommodating learner uniqueness ($p< .05$), and teacher insensitivity toward learners ($p< .05$).

Teacher empathy with learners scores were calculated for teachers (Mean=3.182, SD=.6678, Mdn=3.200), principals (Mean=3.788, SD=.2778, Mdn=3.800), and assistant principals (Mean=3.700, SD=.3464, Mdn=3.800). An analysis of variance indicated a significant difference between the groups on the measure of teacher empathy with learners, $F(2,191)=9.773$, $p<.01$. A Games-Howell post hoc test revealed that teachers scored significantly lower than both principals ($p<.05$) and assistant principals ($p<.05$) on

the measure of teacher empathy with learners. The results of this ANOVA with the dependent variables can be found in Table 24.

Table 24 *ANOVA of Teacher Empathy with Learners and Job Class 2*

Variable	*Df*	*F*	*?*	*p*
Teacher empathy with learners				
Between Groups	2	9.773	3.892	.000**
Within Groups	191		.398	
Total	193			

** Significant at the 0.01 level.

Scores for teacher empathy with learners of the IPI were calculated, with mean ranks for teachers (Mean Rank=89.69) being much lower than principals (Mean Rank=148.47) and assistant principals (Mean Rank=137.63). A Kruskal-Wallis H test indicated a significant difference between the groups on the measure of teacher empathy with learners, $?^2$ (2) =22.907, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for teacher empathy with learners between teachers and principals (U=529.000, p<.01) and between teachers and assistant principals (U=498.000, p<.01). These findings suggest that principals and assistant principals describe themselves as having more teacher empathy with learners than teachers believe their principals and assistant principals have toward them.

Teacher trust of learners scores were calculated for teachers (Mean=3.279, SD=.6126, Mdn=3.409), principals (Mean=3.682, SD=.1369, Mdn=3.636), and assistant principals (Mean=3.652, SD=.1892, Mdn=3.727). An analysis of variance indicated a significant difference between the groups on the measure of teacher trust of learners, F(2,191)=5.557, p<.01. A Games-Howell post hoc test revealed that teachers scored

significantly lower than principals ($p<.05$) on the measure of teacher trust of learners. However, there was no significant difference between the teachers and assistant principals ($p>.05$). The results of this ANOVA with the dependent variables can be found in Table 25.

Table 25 *ANOVA of Teacher Trust of Learners and Job Class 2*

Variable	*Df*	*F*	*?*	*p*
Teacher trust of learners				
Between Groups	2	5.557	1.821	.005**
Within Groups	191		.328	
Total	193			

** Significant at the 0.01 level.

Scores for teacher trust of learners of the IPI were calculated, with mean ranks for teachers (Mean Rank=92.06) being much lower than principals (Mean Rank=131.59) and assistant principals (Mean Rank=127.33). A Kruskal-Wallis H test indicated a significant difference between the groups on the measure of teacher empathy with learners, $?^2$ (2) =10.911, $p<.01$. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for teacher trust of learners between teachers and principals ($U=786.000$, $p<.01$) and between teachers and assistant principals ($U=634.500$, $p<.05$). These findings suggest principals and assistant principals describe themselves as having more teacher trust of learners than teachers believe their principals and assistant principals have toward them.

Accommodating learner uniqueness scores were calculated for teachers (Mean=3.120, SD=.5532, Mdn=3.143), principals (Mean=3.509, SD=.2272, Mdn=3.571), and assistant principals (Mean=3.476, SD=.4146, Mdn=3.571). An analysis of variance indicated a significant difference between the groups on the measure

of accommodating learner uniqueness, F(2,191)=6.074, p<.01. A Games-Howell post hoc test revealed that teachers scored significantly lower than principals (p<.05) and assistant principals (p<.05) on the measure of accommodating learner uniqueness. The results of this ANOVA with the dependent variables can be found in Table 26.

Table 26 *ANOVA of Sub-area Accommodating Learner Uniqueness and Job Class 2*

Variable	*df*	*F*	*?*	*p*
Accommodating learner uniqueness				
Between Groups	2	6.074	1.691	.003**
Within Groups	191		.278	
Total	193			

** Significant at the 0.01 level.

Scores for accommodating learner uniqueness of the IPI were calculated, with mean ranks for teachers (Mean Rank=91.46) being much lower than principals (Mean Rank=135.13) and assistant principals (Mean Rank=130.88). A Kruskal-Wallis H test indicated a significant difference between the groups on the measure of accommodating learner uniqueness, $?^2$ (2) =13.461, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for accommodating learner uniqueness between teachers and principals (U=721.000, p<.01) and between teachers and assistant principals (U=600.500, p<.05). These findings suggest principals and assistant principals describe themselves as accommodating learner uniqueness more than teachers believe their principals and assistant principals actually do toward them.

Teacher insensitivity toward learners scores were calculated for teachers (Mean=1.684, SD=.5989, Mdn=1.571), principals (Mean=2.420, SD=.3814, Mdn=2.429), and assistant principals (Mean=2.441, SD=.5256, Mdn=2.286). An

analysis of variance indicated a significant difference between the groups on the measure of teacher insensitivity toward learners, $F(2,193)=19.743$, $p<.01$. A Games-Howell post hoc test revealed that teachers scored significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on the measure of teacher insensitivity toward learners. The results of this ANOVA with the dependent variables can be found in Table 27.

Table 27 *ANOVA of Sub-area Teacher Insensitivity toward Learners and Job Class 2*

Variable	*df*	*F*	*?*	*p*
Teacher insensitivity toward learners				
Between Groups	2	19.743	6.660	.000**
Within Groups	193		.337	
Total	195			

** Significant at the 0.01 level.

Scores for teacher insensitivity toward learners of the IPI were calculated, with mean ranks for teachers (Mean Rank=89.16) being much lower than principals (Mean Rank=155.22) and assistant principals (Mean Rank=153.67). A Kruskal-Wallis H test indicated a significant difference between the groups on the measure of teacher empathy with learners, $?^2$ (2) =32.095, $p<.01$. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for teacher insensitivity toward learners between teachers and principals ($U=403.000$, $p<.01$) and between teachers and assistant principals ($U=325.500$, $p<.01$). These findings suggest principals and assistant principals describe themselves as having more insensitivity toward learners than teachers believe their principals and assistant principals have toward them.

Comparisons of parametric and nonparametric scores reveal levels of significance for both methods for the variables teacher empathy with learners, teacher trust of

learners, accommodating learner uniqueness, and teacher insensitivity toward learners as it relates to job classification 2. Levels of significance varied for the variable: teacher empathy with learners between teacher and principals on the *t*-test ($p<.05$) and Mann Whitney U test ($p<.01$), and between teacher and assistant principals on the *t*-test ($p<.05$) and Mann Whitney U test ($p<.01$); teacher trust of learners between teacher and principals on the *t*-test ($p<.05$) and Mann Whitney U test ($p<.01$), and between teacher and assistant principals on the *t*-test ($p>.05$) and Mann Whitney U test ($p<.05$); accommodating learner uniqueness between teacher and principals on the *t*-test ($p<.05$) and Mann Whitney U test ($p<.01$), and were the same between teacher and assistant principals on the *t*-test ($p<.05$) and Mann Whitney U test ($p<.01$); and, teacher insensitivity toward learners between teacher and principals on the *t*-test ($p<.05$) and Mann Whitney U test ($p<.01$), and between teacher and assistant principals on the *t*-test ($p<.05$) and Mann Whitney U test ($p<.01$). The most noticeable difference in significance level was for teacher trust of learners between teacher and assistant principals on the *t*-test ($p>.05$) and Mann Whitney U test ($p<.05$).

In summary, the variances between the means for job classification and the IPI sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners are true. In this case, the null hypothesis, there is no relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development, is rejected. There is a relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff

development and it does not contribute to creating the conditions conducive for learning in school-based staff development.

There is a gap in the relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development, specifically in the areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners. This gap is a difference between what principals state they do to create the conditions for learning in school-based staff development and what teachers report principals do to create the conditions for learning in school-based staff development. This is evidenced by the following data.

Correlations between dependent and independent variables for all subjects suggest a slight association between principals and teachers for the IPI sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners of the IPI which are significant ($p<.01$) for this population. Wilks' ?=.639, $F(4,188) =26.530$, $p<.01$ indicates the variables teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity differentiate the groups in the variable job classification. MANOVA *F* ratios for the IPI sub-areas of teacher empathy with learners (19.590), teacher trust of learners (10.962), accommodating learner uniqueness (11.959), and teacher insensitivity toward learners (43.147) are robust and significant ($p<.01$) meaning the obtained differences in the sample is a true one. Kruskal-Wallis H tests indicated significant differences ($p<.01$) for these variables also.

T-tests used to determine the level of statistical significance of an observed

difference between sample means showed significant mean differences occurred for teacher empathy with learners $t(79.380) = -7.314$, $p < .01$, teacher trust of learners $t(163.746) = -6.928$, $p < .01$, accommodating learner uniqueness $t(59.843) = -5.117$, $p < .01$, and teacher insensitivity toward learners $t(45.551) = -7.832$, $p < .05$ for the independent variable of job classification. Mann Whitney U tests indicated significant differences ($p<.01$) for these variables also.

An ANOVA for IPI sub-areas and the independent variable job classification 2 (jobs grouped by principal, assistant principal, supervisor, and teacher) reveal F ratios for IPI sub-areas of teacher empathy with learners (9.773), teacher trust of learners (5.557), accommodating learner uniqueness (6.074), and teacher insensitivity toward learners (19.743) are robust and significant ($p<.01$) meaning the obtained differences between the variables is a true one. Kruskal-Wallis H tests indicated significant differences ($p<.01$) for these variables also.

Post hoc tests reveal teacher means were significantly less than principal means for the IPI sub-areas of teacher empathy with learners ($p<.01$), teacher trust of learners ($p<.05$), accommodating learner uniqueness ($p<.05$), and teacher insensitivity toward learners ($p<.05$). Post hoc tests reveal teacher means were significantly less than assistant principal means for the IPI sub-areas of teacher empathy with learners ($p<.05$), accommodating learner uniqueness ($p<.05$), and teacher insensitivity toward learners ($p<.05$). Mann Whitney U tests indicated significant differences for these variables also between teachers and principals for the IPI sub-areas of teacher empathy with learners ($p<.01$), teacher trust of learners ($p<.01$), accommodating learner uniqueness ($p<.01$), and teacher insensitivity toward learners ($p<.01$). Mann Whitney U tests indicated significant

difference between teachers and assistant principal for the IPI sub-areas of teacher empathy with learners ($p<.01$), teacher trust of learners ($p<.05$), accommodating learner uniqueness ($p<.05$), and teacher insensitivity toward learners ($p<.01$).

From the perspective of principals, no gap exists in the relationship with teachers except in the sub-area of teacher insensitivity toward learners where principals report a higher level of insensitivity in comparison to what teachers believe the attitudes of their principals are towards them. From the perspective of teachers the gap exists in what they believe the attitudes of their principals are towards them in showing empathy to teachers, trusting teachers, and accommodating the teachers' uniqueness. The gap does not exist in what teachers believe the attitudes of their principals are towards them in being insensitive towards them as learners.

The sub-areas of the IPI, teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners should contribute to creating the conditions conducive for learning in school-based staff development. In this study, the gap in the relationship between principals and teachers does not contribute to creating the conditions conducive for learning in school-based staff development.

Data for Answering Research Questions Two and Three

To assist in answering research questions two and three, individual questions on the IPI which compose sub-areas teacher empathy of learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners of the IPI were analyzed. The results listed below were used to answer research questions two and three. A summarization of the data is addressed when each research question is dealt

with separately. Data results and summaries are presented in this manner to alleviate a repetition of the same data for each question. Parametric statistical analysis is presented first followed by nonparametric statistical analysis.

An ANOVA of responses on individual items of the IPI for the sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity was calculated using the independent variable of job classification 2. For the sub-area teacher empathy with learners, the IPI contains five questions. Scores for sub-area teacher empathy with learners can be found in Table 28.

Table 28 *Scores for Questions of Teacher Empathy with Learners and Job Class 2*

Teacher empathy with learners	*M*	*SD*	*Mdn*
IPI question 4			
Teachers	3.313	.9397	4.000
Principals	3.938	.2500	4.000
Assistant Principals	3.666	1.155	4.000
IPI question 12			
Teachers	2.929	.9062	3.000
Principals	3.750	.4472	4.000
Assistant Principals	3.750	.4523	4.000
IPI question 19			
Teachers	3.101	.8015	3.000
Principals	3.438	.5124	3.000
Assistant Principals	3.333	.4924	3.000
IPI question 26			
Teachers	3.252	.9099	4.000
Principals	3.938	.2500	4.000
Assistant Principals	4.000	.0000	4.000
IPI question 33			
Teachers	3.244	.8991	3.000
Principals	3.875	.3416	4.000
Assistant Principals	3.750	.4523	4.000

Levene's Test of Homogeneity of Variances suggested that equality of group variances could be assumed for question 19 ($p>.05$) and not be assumed for question four ($p< .05$), question 12 ($p< .05$), question 26 ($p< .05$), and question 33 ($p< .05$). Teacher

empathy with learners scores were calculated for teachers, principals, and assistant principals. An analysis of variance indicated a significant difference between the groups on question four, $F(2,191)=3.961$, $p<.05$; question 12, $F(2,193)=10.975$, $p<.01$; question 26, $F(2,192)=8.471$, $p<.01$; and question 33, $F(2,193)=5.629$, $p<.01$. An analysis of variance indicated no significant difference between the groups on question 19, $F(2,193)=1.793$, $p>.05$. The results of the ANOVA with teacher empathy with learners can be found in Table 29.

Table 29 *ANOVA of Questions of Teacher Empathy with Learners and Job Class 2*

Teacher empathy with learners	*df*	*F*	*?*	*P*
IPI question 4				
Between Groups	2	3.961	3.345	.021*
Within Groups	191		.845	
Total	193			
IPI question 12				
Between Groups	2	10.975	8.097	.000**
Within Groups	193		.738	
Total	195			
IPI question 19				
Between Groups	2	1.793	1.058	.169
Within Groups	193		.590	
Total	195			
IPI question 26				
Between Groups	2	8.471	6.105	.000**
Within Groups	192		.721	
Total	194			
IPI question 33				
Between Groups	2	5.629	4.054	.004**
Within Groups	193		.720	
Total	195			

** Significant at the 0.01 level; * Significant at the 0.05 level.

A Games-Howell post hoc test revealed that teachers scored significantly lower than principals ($p<.05$) on question four; significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on question 12; significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on question 26; and significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on question 33.

Scores for questions four, 12, 19, 26, and 33 of teacher empathy with learners of the IPI were calculated, with mean ranks for teachers being much lower than principals and assistant principals for all questions. A Kruskal-Wallis H test indicated a significant difference between the groups on question four, $?^2$ (2) =12.814, $p<.01$. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question four between teachers and principals ($U=797.000$, $p<.01$) and between teachers and assistant principals ($U=665.500$, $p<.05$). These findings suggest principals and assistant principals describe themselves as feeling fully prepared to teach more than teachers believe their principals and assistant principals actually believe they are prepared toward them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 12, $?^2$ (2) =22.618, $p<.01$. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for questions 12 between teachers and principals ($U=634.000$, $p<.01$) and between teachers and assistant principals ($U=475.500$, $p<.01$). These findings suggest principals and assistant principals notice and acknowledge to teachers positive changes in them more than teachers believe their principals and assistant principals actually notice and acknowledge positive changes toward them. Results of the mean

ranks can be found in Table 30.

Table 30 *Rank Scores for Questions of Teacher Empathy with Learners and Job Class 2*

Teacher empathy with learners	N	Mean Rank
IPI question 4		
Teachers	166	92.31
Principals	16	130.84
Assistant Principals	12	124.88
IPI question 12		
Teachers	168	91.10
Principals	16	142.88
Assistant Principals	12	142.88
IPI question 19		
Teachers	168	96.05
Principals	16	116.88
Assistant Principals	12	108.33
IPI question 26		
Teachers	167	91.45
Principals	16	134.88
Assistant Principals	12	140.00
IPI question 33		
Teachers	168	93.39
Principals	16	133.63
Assistant Principals	12	123.25

A Kruskal-Wallis H test indicated a significant difference between the groups on question 26, $?^2$ (2) =19.801, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for questions four between teachers and principals (U=740.000, p<.01) and between teachers and assistant principals (U=504.500, p<.01). These findings suggest principals and assistant principals describe themselves as expressing appreciation to teachers when they actively participate more than teachers believe their principals and assistant principals actually do toward them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 33, $?^2$ (2) =12.005, p<.01. A series of Mann Whitney U tests were carried out to

provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for questions four between teachers and principals (U=794.000, p<.01) and no significant difference between teachers and assistant principals (U=699.000, p>.05). These findings suggest principals describe themselves as promoting self-esteem in teachers more than teachers believe their principals actually do toward them.

Scores for question 19 of teacher empathy with learners of the IPI were calculated, with mean ranks for teachers being much lower than principals and assistant principals for this question (see Table 28). A Kruskal-Wallis H test indicated no significant difference between the groups on question 19, $?^2$ (2) =2.813, p>.05.

Comparisons of parametric and nonparametric scores reveal levels of significance for both methods for the questions four, 12, 26, and 33 and no significance for question 19. Probability levels for question four were different for ANOVA (p<.05) and the Kruskal-Wallis H test (p<.01). Levels of significance varied for post-hoc tests on: question four between teacher and principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01), and between teacher and assistant principals on the Games-Howell test (p>.05) and Mann Whitney U test (p<.05); question 12 between teacher and principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01), and between teacher and assistant principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01); question 26 between teacher and principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01), and between teacher and assistant principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01); and, question 33 between teacher and principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01), and between teacher and assistant principals on the

Games-Howell test (p>.05) and Mann Whitney U test (p>.05). The most noticeable differences in significance levels were for: question four post-hoc results between teacher and assistant principals on the Games-Howell (p>.05) and Mann Whitney U test (p<.05), and question 33 post-hoc results between teacher and assistant principals on the Games-Howell (p<.05) and Mann Whitney U test (p>.05).

For the sub-area teacher trust of learners, the IPI contains 11 questions. Teacher empathy with learners scores were calculated for teachers, principals, and assistant principals. Levene's Test of Homogeneity of Variances suggested that equality of group variances could be assumed for question 16 (p>.05), question 30 (p>.05), question 31 (p>.05), and question 44 (p>.05). Group variances could not be assumed for question seven (p< .05), question eight (p< .05), question 28 (p< .05), question 29 (p< .05), question 39 (p< .05), question 43 (p< .05), and question 45 (p< .05).

An analysis of variance indicated a significant difference between the groups on question seven, $F(2,193)=6.141$, $p<.01$; question 29, $F(2,192)=10.315$, $p<.01$; question 31, $F(2,193)=4.536$, $p<.05$; question 39, $F(2,193)=4.613$, $p<.05$; question 43, $F(2,193)=6.250$, $p<.01$; and question 45, $F(2,193)=3.601$, $p<.05$. An analysis of variance indicated no significant difference between the groups on question 8, $F(2,193)=2.868$, $p>.05$; question 16, $F(2,193)=0.094$, $p>.05$; question 28, $F(2,193)=2.532$, $p>.05$; question 30, $F(2,193)=0.188$, $p>.05$; and question 44, $F(2,193)=0.412$, $p>.05$. Table 31 contains the results of the calculated scores for questions in the sub-area teacher trust of learners. The results of the ANOVA with the dependent variables can be found in Table 32.

Table 31 *Scores for Questions of Teacher Trust of Learners and Job Class 2*

Teacher trust of learners	*M*	*SD*	*Mdn*
IPI question 7			
Teachers	3.125	.9800	3.000
Principals	3.813	.4031	4.000
Assistant Principals	3.750	.4523	4.000
IPI question 8			
Teachers	3.470	.8400	4.000
Principals	3.875	.3416	4.000
Assistant Principals	3.833	.3893	4.000
IPI question 16			
Teachers	3.571	.7705	4.000
Principals	3.563	.6292	4.000
Assistant Principals	3.666	.4924	4.000
IPI question 28			
Teachers	3.411	.7449	4.000
Principals	3.813	.4031	4.000
Assistant Principals	3.583	.5149	4.000
IPI question 29			
Teachers	2.910	.9621	3.000
Principals	3.688	.4787	4.000
Assistant Principals	3.892	.4523	4.000
IPI question 30			
Teachers	3.190	.8186	3.000
Principals	3.313	.6021	3.000
Assistant Principals	3.250	.8660	3.500
IPI question 31			
Teachers	3.095	.8771	3.000
Principals	3.688	.4787	4.000
Assistant Principals	3.500	.7977	4.000
IPI question 39			
Teachers	2.708	.9749	3.000
Principals	3.250	.6831	3.000
Assistant Principals	3.333	.4924	3.000
IPI question 43			
Teachers	3.369	.8861	4.000
Principals	4.000	.0000	4.000
Assistant Principals	3.917	.2887	4.000
IPI question 44			
Teachers	3.333	.9264	4.000
Principals	3.500	.8165	4.000
Assistant Principals	3.500	.5222	3.500
IPI question 45			
Teachers	3.601	.7826	4.000
Principals	4.000	.0000	4.000
Assistant Principals	3.659	.7376	4.000

Table 32 *ANOVA of Questions of Teacher Trust of Learners and Job Class 2*

Teacher trust of learners	*df*	*F*	*?*	*P*
IPI question 7				
Between Groups	2	6.141	5.252	.003**
Within Groups	193		.855	
Total	195			
IPI question 8				
Between Groups	2	2.868	1.805	.059
Within Groups	193		.628	
Total	195			
IPI question 16				
Between Groups	2	.094	.053	.910
Within Groups	193		.558	
Total	195			
IPI question 28				
Between Group	2	2.532	1.286	.082
Within Groups	193		.508	
Total	195			
IPI question 29				
Between Groups	2	10.315	8.529	.000**
Within Groups	192		.827	
Total	194			
IPI question 30				
Between Groups	2	.188	.122	.829
Within Groups	193		.651	
Total	195			
IPI question 31				
Between Groups	2	4.536	3.265	.012*
Within Groups	193		.720	
Total	195			
IPI question 39				
Between Groups	2	4.613	4.024	.011*
Within Groups	193		.872	
Total	195			
IPI question 43				
Between Groups	2	6.250	4.276	.002**
Within Groups	193		.684	
Total	195			
IPI question 44				
Between Groups	2	.412	.333	.663
Within Groups	193		.810	
Total	195			
IPI question 45				
Between Groups	2	3.601	1.909	.029*
Within Groups	193		.530	
Total	195			

** Significant at the 0.01 level; * Significant at the 0.05 level.

A Games-Howell post hoc test revealed that teachers scored significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on question seven; significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on question 29; significantly lower than principals ($p<.05$) on question 31; significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on question 39; significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on question 43;and significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on question 45.

Scores for questions seven, eight, 16, 28, 29, 30, 31, 39, 43, 44, and 45 of teacher trust of learners of the IPI were calculated, with mean ranks for teachers being much lower than principals and assistant principals for all questions except question 16. A Kruskal-Wallis H test indicated a significant difference between the groups on question seven, $?^2$ (2) =12.338, $p<.01$. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question seven between teachers and principals ($U=803.500$, $p<.01$) and between teachers and assistant principals ($U=649.500$, $p<.05$). These findings suggest principals and assistant principals describe themselves as purposefully communicating to teachers they are uniquely important more than teachers believe their principals and assistant principals actually believe they are toward them. Results of the mean ranks for the questions in sub-area teacher trust of learners can be found in Table 33.

Table 33 *Rank Scores for Questions of Teacher Trust of Learners and Job Class 2*

Teacher trust of learners	N	Mean Rank
IPI question 7		
Teachers	168	93.15
Principals	16	132.66
Assistant Principals	12	127.88
IPI question 8		
Teachers	168	95.15
Principals	16	120.13
Assistant Principals	12	116.50
IPI question 16		
Teachers	168	98.99
Principals	16	93.22
Assistant Principals	12	98.67
IPI question 28		
Teachers	168	95.65
Principals	16	124.31
Assistant Principals	12	103.92
IPI question 29		
Teachers	167	90.92
Principals	16	135.81
Assistant Principals	12	146.17
IPI question 30		
Teachers	168	97.90
Principals	16	102.03
Assistant Principals	12	102.13
IPI question 31		
Teachers	168	93.81
Principals	16	131.13
Assistant Principals	12	120.67
IPI question 39		
Teachers	168	93.95
Principals	16	123.69
Assistant Principals	12	128.67
IPI question 43		
Teachers	168	93.01
Principals	16	134.50
Assistant Principals	12	127.33
IPI question 44		
Teachers	168	97.79
Principals	16	105.94
Assistant Principals	12	98.50
IPI question 45		
Teachers	168	94.75
Principals	16	121.00
Assistant Principals	12	121.00

A Kruskal-Wallis H test indicated a significant difference between the groups on question seven, $?^2$ (2) =20.727, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 29 between teachers and principals (U=717.000, p<.01) and between teachers and assistant principals (U=438.000, p<.01). These findings suggest principals and assistant principals feel teachers need to be aware of and communicate their thoughts and feelings more than teachers believe their principals and assistant principals actually feel the need to be aware and communicate their thoughts and feelings toward them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 29, $?^2$ (2) =20.727, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 29 between teachers and principals (U=717.000, p<.01) and between teachers and assistant principals (U=438.000, p<.01). These findings suggest principals and assistant principals feel teachers need to be aware of and communicate their thoughts and feelings more than teachers believe their principals and assistant principals actually feel the need to be aware and communicate their thoughts and feelings toward them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 31, $?^2$ (2) =9.526, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 31 between teachers and principals (U=829.000, p<.01) and no significant difference between teachers and assistant principals (U=735.000,

p>.05). These findings suggest principals hear what teachers' learning needs are more than teachers believe their principals actually do hear what their learning needs are toward them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 39, $?^2$ (2) =8.551, p<.05. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 39 between teachers and principals (U=937.000, p<.05) and teachers and assistant principals (U=650.000, p<.05). These findings suggest principals and assistant principals describe themselves as engaging teachers in clarifying their own aspirations more than teachers believe their principals actually do toward them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 43, $?^2$ (2) =15.195, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 43 between teachers and principals (U=776.000, p<.01) and teachers and assistant principals (U=654.000, p<.05). These findings suggest principals and assistant principals describe themselves as developing supportive relationships with teachers more than teachers believe their principals and assistant principals actually do toward them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 45, $?^2$ (2) =9.548, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 45 between teachers and principals (U=984.000, p<.05) and teachers and assistant principals (U=738.000, p<.05). These findings suggest

principals and assistant principals describe themselves as respecting the dignity and integrity of teachers more than teachers believe their principals and assistant principals actually do toward them.

Scores for question eight of teacher trust of learners of the IPI were calculated, with mean ranks for teachers being much lower than principals and assistant principals for this question (see Table 33). A Kruskal-Wallis H test indicated no significant difference between the groups on question eight, $?^2$ (2) =5.768, p>.05.

Scores for question 16 of teacher trust of learners of the IPI were calculated, with mean ranks for teachers being slightly higher than principals and very close to the scores of assistant principals for this question (see Table 33). A Kruskal-Wallis H test indicated no significant difference between the groups on question 16, $?^2$ (2) =0.230, p>.05.

Scores for question 28 of teacher trust of learners of the IPI were calculated, with mean ranks for teachers being much lower than principals and assistant principals for this question (see Table 33). A Kruskal-Wallis H test indicated no significant difference between the groups on question 28, $?^2$ (2) =4.942, p>.05.

Scores for question 30 of teacher trust of learners of the IPI were calculated, with mean ranks for teachers being slightly lower than principals and assistant principals for this question (see Table 33). A Kruskal-Wallis H test indicated no significant difference between the groups on question 30, $?^2$ (2) =0.153, p>.05.

Scores for question 44 of teacher trust of learners of the IPI were calculated, with mean ranks for teachers being lower than principals and slightly lower than assistant principals for this question (see Table 33). A Kruskal-Wallis H test indicated no significant difference between the groups on question 44, $?^2$ (2) =0.382, p>.05.

Comparisons of parametric and nonparametric scores reveal levels of significance for both methods for the questions seven, 29, 31, 39, 43, and 45 and no significance for questions eight, 16, 28, 30, and 44. Probability levels for questions 31 and 45 were different for ANOVA ($p<.05$) and the Kruskal-Wallis H test ($p<.01$). Levels of significance varied for post-hoc tests on: question seven between teacher and principals on the Games-Howell test ($p<.05$) and Mann Whitney U test ($p<.01$); question 29 between teacher and principals on the Games-Howell test ($p<.05$) and Mann Whitney U test ($p<.01$), and between teacher and assistant principals on the Games-Howell test ($p<.05$) and Mann Whitney U test ($p<.01$); question 31 between teacher and principals on the Games-Howell test ($p<.05$) and Mann Whitney U test ($p<.01$); and, question 43 between teacher and principals on the Games-Howell test ($p<.05$) and Mann Whitney U test ($p<.01$). There were no noticeable differences in significance level for the questions.

For the sub-area accommodating learner uniqueness, the IPI contains seven questions. Accommodating learner uniqueness scores were calculated for teachers, principals, and assistant principals. An ANOVA was calculated for the questions of accommodating learner uniqueness.

Levene's Test of Homogeneity of Variances suggested that equality of group variances could be assumed for question 37 ($p>.05$), and question 40 ($p>.05$). Group variances could not be assumed for question six ($p< .05$), question 14 ($p< .05$), question 15 ($p< .05$), question 17 ($p< .05$), and question 38 ($p< .05$). An analysis of variance indicated a significant difference between the groups on question 14, $F(2,192)=6.776$, $p<.01$; and, question 17, $F(2,193)=3.429$, $p<.05$. An analysis of variance indicated no significant difference between the groups on question 6, $F(2,193)=2.331$, $p>.05$; question

15, F(2,193)=2.552, p>.05; question 37, F(2,193)=2.240, p>.05; question 38, F(2,193)=1.307, p>.05; and question 40, F(2,193)=2.606, p>.05. A Games-Howell post hoc test revealed that teachers scored significantly lower than principals (p<.05) and assistant principals (p<.05) on question 14; and, significantly lower than principals (p<.05) and assistant principals (p<.05) on question 17. Accommodating learner uniqueness scores were calculated for teachers, principals, and assistant principals and can be found in Table 34.

Table 34 *Scores for Questions of Accommodating Learner Uniqueness and Job Class 2*

Accommodating learner uniqueness	*M*	*SD*	*Mdn*
IPI question 6			
Teachers	3.363	.7771	4.000
Principals	3.750	.4472	4.000
Assistant Principals	3.583	.5149	4.000
IPI question 14			
Teachers	3.246	.7720	3.000
Principals	3.875	.3416	4.000
Assistant Principals	3.666	.4924	4.000
IPI question 15			
Teachers	3.458	.8252	4.000
Principals	3.875	.3416	4.000
Assistant Principals	3.750	.8660	4.000
IPI question 17			
Teachers	3.565	.7229	4.000
Principals	3.938	.2500	4.000
Assistant Principals	3.917	.2887	4.000
IPI question 37			
Teachers	2.470	1.0071	3.000
Principals	2.938	.7719	3.000
Assistant Principals	2.833	.9374	3.000
IPI question 38			
Teachers	2.941	1.0250	3.000
Principals	3.188	.4031	3.000
Assistant Principals	3.333	.4924	3.000
IPI question 40			
Teachers	2.696	.9525	3.000
Principals	3.000	.7303	3.000
Assistant Principals	3.250	.7538	3.000

ANOVA results calculated for the questions of accommodating learner uniqueness and can be found in Table 35. Scores for questions six, 14, 15, 17, 37, 38 and

Table 35 *ANOVA of Questions of Accommodating Learner Uniqueness and Job Class 2*

Accommodating learner uniqueness	*df*	*F*	*?*	*p*
IPI question 6				
Between Groups	2	2.331	1.290	.100
Within Groups	193		.553	
Total	195			
IPI question 14				
Between Groups	2	6.776	3.648	.001**
Within Groups	192		.538	
Total	194			
IPI question 15				
Between Groups	2	2.552	1.636	.081
Within Groups	193		.641	
Total	195			
IPI question 17				
Between Groups	2	3.429	1.584	.034*
Within Groups	193		.462	
Total	195			
IPI question 37				
Between Groups	2	2.240	2.180	.109
Within Groups	191		.974	
Total	193			
IPI question 38				
Between Groups	2	1.307	1.223	.273
Within Groups	193		.935	
Total	195			
IPI question 40				
Between Groups	2	2.606	2.239	.076
Within Groups	193		.859	
Total	195			

** Significant at the 0.01 level; * Significant at the 0.05 level.

40 of accommodating learner uniqueness of the IPI were calculated, with mean ranks for

teachers being much lower than principals and assistant principals for all questions. A Kruskal-Wallis H test indicated a significant difference between the groups on question 14, $?^2$ (2) =15.584, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 14 between teachers and principals (U=683.000, p<.01) and no significant difference between teachers and assistant principals (U=696.000, p>.05). These findings suggest principals describe themselves as believing that teachers vary in the way they acquire, process, and apply subject matter knowledge more than teachers believe their principals actually show belief in them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 15, $?^2$ (2) =6.984, p<.05. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 15 between teachers and principals (U=994.000, p<.05) and no significant difference between teachers and assistant principals (U=747.500, p>.05). These findings suggest principals describe themselves as really listening to what teachers have to say more than teachers believe their principals actually listen to what they have to say toward them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 17, $?^2$ (2) =7.763, p<.05. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 17 between teachers and principals (U=981.500, p<.05) and no significant difference between teachers and assistant principals (U=755.500, p>.05). These findings suggest principals describe themselves and their attitudes as

encouraging teachers to solicit assistance from other teachers more than teachers believe the attitudes of their principals are toward them. Table 36 reveals mean ranks of teachers and principals for the sub-area accommodating learner uniqueness.

Table 36 *Rank Scores for Questions of Accommodating Learner Uniqueness and Job Class 2*

Accommodating learner uniqueness	N	Mean Rank
IPI question 6		
Teachers	168	95.60
Principals	16	122.13
Assistant Principals	12	107.54
IPI question 14		
Teachers	167	92.26
Principals	16	140.06
Assistant Principals	12	121.83
IPI question 15		
Teachers	168	94.87
Principals	16	120.19
Assistant Principals	12	120.46
IPI question 17		
Teachers	168	94.84
Principals	16	121.28
Assistant Principals	12	119.38
IPI question 37		
Teachers	166	94.40
Principals	16	117.91
Assistant Principals	12	113.17
IPI question 38		
Teachers	168	96.98
Principals	16	103.09
Assistant Principals	12	113.67
IPI question 40		
Teachers	168	95.32
Principals	16	110.75
Assistant Principals	12	126.71

Comparisons of parametric and nonparametric scores reveal levels of significance for both methods for the questions 14 and 17 and no significance for questions six, 37, 38, and 40. Probability levels for question 15 was different for ANOVA ($p>.05$) and the

Kruskal-Wallis H test (p<.05). Levels of significance varied for post-hoc tests on: question 14 between teacher and principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01) and between teacher and assistant principals on the Games-Howell test (p<.05) and Mann Whitney U test (p>.05); question 15 between teacher and principals on the Games-Howell test (p>.05) and Mann Whitney U test (p<.05); and question 17 between teacher and assistant principals on the Games-Howell test (p<.05) and Mann Whitney U test (p>.05). The most noticeable differences in significance levels were for: question 14 post-hoc results between teacher and assistant principals on the Games-Howell (p<.05) and Mann Whitney U test (p>.05), question 15 ANOVA (p>.05) and the Kruskal-Wallis H test (p<.05); and, question 17 post-hoc results between teacher and assistant principals on the Games-Howell (p<.05) and Mann Whitney U test (p>.05).

Scores for question six of accommodating learner uniqueness of the IPI were calculated, with mean ranks for teachers being much lower than principals and assistant principals for this question (see Table 36). A Kruskal-Wallis H test indicated no significant difference between the groups on question six, $?^2$ (2) =4.371, p>.05.

Scores for question 37 of accommodating learner uniqueness of the IPI were calculated, with mean ranks for teachers being much lower than principals and assistant principals for this question (see Table 36). A Kruskal-Wallis H test indicated no significant difference between the groups on question 37, $?^2$ (2) =3.914, p>.05.

Scores for question 38 of accommodating learner uniqueness of the IPI were calculated, with mean ranks for teachers being much lower than principals and assistant principals for this question (see Table 36). A Kruskal-Wallis H test indicated no significant difference between the groups on question 38, $?^2$ (2) =1.213, p>.05.

Scores for question 40 of accommodating learner uniqueness of the IPI were calculated, with mean ranks for teachers being much lower than principals and assistant principals for this question (see Table 36). A Kruskal-Wallis H test indicated no significant difference between the groups on question 40, $?^2$ (2) =4.723, p>.05.

For the sub-area teacher insensitivity toward learners, the IPI contains seven questions which are worded in a negative or reversed manner. These negatively stated items are phrased in a manner that high scores indicate a lack of emphasis in adult education or learning concepts. Levene's Test of Homogeneity of Variances suggested that equality of group variances could be assumed for question 13 (p>.05), question 18 (p>.05), and question 41 (p>.05). Group variances could not be assumed for question five (p< .05), question 27 (p< .05), question 32 (p< .05), and question 36 (p< .05). Teacher insensitivity scores for teachers, principals, and assistant principals can be found in Table 37.

Table 37 *Scores for Questions of Teacher Insensitivity toward Learners and Job Class 2*

Teacher insensitivity toward learners	*M*	*SD*	*Mdn*
IPI question 5			
Teachers	2.156	.9693	2.000
Principals	2.250	.5774	2.000
Assistant Principals	2.333	.4924	2.000
IPI question 13			
Teachers	1.881	.9338	2.000
Principals	2.375	.8062	2.000
Assistant Principals	2.000	.9535	2.000
IPI question 18			
Teachers	1.503	.8131	1.000
Principals	2.500	.6325	3.000
Assistant Principals	2.666	.9847	3.000
IPI question 27			
Teachers	1.632	.8459	1.000
Principals	2.938	.6800	3.000
Assistant Principals	2.833	.7177	3.000
IPI question 32			
Teachers	1.613	.8750	1.000
Principals	2.313	.4787	2.000
Assistant Principals	2.250	.7538	2.000
IPI question 36			
Teachers	1.607	.8479	1.000
Principals	1.938	.4425	2.000
Assistant Principals	1.917	.6686	2.000
IPI question 41			
Teachers	1.450	.8189	1.000
Principals	2.625	.7188	2.500
Assistant Principals	3.083	.6686	3.000

Teacher insensitivity scores were calculated for teachers, principals, and assistant principals. An ANOVA indicated a significant difference between the groups on question 18, $F(2,192)=20.932$, $p<.01$; question 27, $F(2,188)=27.844$, $p<.01$; question 32, $F(2,193)=7.637$, $p<.01$; and, question 41, $F(2,192)=36.083$, $p<.01$. An analysis of variance indicated no significant difference between the groups on question 5,

F(2,192)=0.266, p>.05: question 13, F(2,193)=2.119, p>.05; and, question 36, F(2,193)=1.873, p>.05. ANOVA results of questions of teacher insensitivity toward learners can be found in Table 38.

Table 38 *ANOVA of Questions of Teacher Insensitivity toward Learners Using Job Class 2*

Teacher insensitivity toward learners	*df*	*F*	*?*	*P*
IPI question 5				
Between Groups	2	.266	.227	.767
Within Groups	192		.852	
Total	194			
IPI question 13				
Between Groups	2	2.119	1.815	.123
Within Groups	193		.857	
Total	195			
IPI question 18				
Between Groups	2	20.932	13.782	.000**
Within Groups	192		.658	
Total	194			
IPI question 27				
Between Groups	2	27.844	19.034	.000**
Within Groups	188		.684	
Total	190			
IPI question 32				
Between Groups	2	7.637	5.442	.001**
Within Groups	193		.713	
Total	195			
IPI question 36				
Between Groups	2	1.873	1.241	.156
Within Groups	193		.663	
Total	195			
IPI question 41				
Between Groups	2	36.083	23.300	.000**
Within Groups	192		.646	
Total	194			

** Significant at the 0.01 level; * Significant at the 0.05 level.

A Tukey HSD post hoc test revealed that teachers scored significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on question 18; and, significantly lower principals ($p<.05$) and assistant principals ($p<.05$) on question 41. A Games-Howell post hoc test revealed that teachers scored significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on question 27; and, significantly lower than principals ($p<.05$) and assistant principals ($p<.05$) on question 32.

Scores for questions five, 13, 18, 27, 32, 36 and 41 of teacher insensitivity toward learners of the IPI were calculated, with mean ranks for teachers being much lower than principals and assistant principals for all questions. A Kruskal-Wallis H test indicated a significant difference between the groups on question 18, $?^2$ (2) =36.031, $p<.01$. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 18 between teachers and principals ($U=478.500$, $p<.01$) and between teachers and assistant principals ($U=393.000$, $p<.01$). These findings suggest principals and assistant principals describe themselves and their attitudes as feeling impatient with teachers progress more than teachers believe the attitudes of their principals are toward them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 27, $?^2$ (2) =41.832, $p<.01$. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 27 between teachers and principals ($U=361.500$, $p<.01$) and between teachers and assistant principals ($U=307.000$, $p<.01$). These findings suggest principals describe themselves and their attitudes as experiencing frustration with teachers apathy more than teachers believe the attitudes of their principals are toward

them. Table 39 shows mean ranks for the sub-area teacher insensitivity toward learners.

Table 39 *Rank Scores for Questions of Teacher Insensitivity toward Learners and Job Class 2*

Teacher Insensitivity Toward Learners	N	Mean Rank
IPI question 5		
Teachers	167	96.49
Principals	16	104.78
Assistant Principals	12	110.00
IPI question 13		
Teachers	168	95.24
Principals	16	126.34
Assistant Principals	12	107.08
IPI question 18		
Teachers	167	89.22
Principals	16	150.72
Assistant Principals	12	149.92
IPI question 27		
Teachers	163	86.10
Principals	16	155.41
Assistant Principals	12	151.25
IPI question 32		
Teachers	168	91.44
Principals	16	144.59
Assistant Principals	12	135.88
IPI question 36		
Teachers	168	94.08
Principals	16	127.47
Assistant Principals	12	121.71
IPI question 41		
Teachers	167	87.31
Principals	16	155.75
Assistant Principals	12	169.75

A Kruskal-Wallis H test indicated a significant difference between the groups on question 32, $?^2$ (2) =22.117, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 32 between teachers and principals (U=607.500, p<.01) and between teachers and assistant principals (U=558.500, p<.01). These findings suggest principals describe themselves and their attitudes as having difficulty with the

amount of time teachers need to grasp various concepts more than teachers believe the attitudes of their principals are toward them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 36, $?^2$ (2) =8.842, p<.05. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 36 between teachers and principals (U=883.000, p<.05) and no significant difference between teachers and assistant principals (U=727.000, p>.05). These findings suggest principals describe themselves and their attitudes as getting bored with the many questions teachers ask more than teachers believe the attitudes of their principals are toward them.

A Kruskal-Wallis H test indicated a significant difference between the groups on question 41, $?^2$ (2) =53.097, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for question 41 between teachers and principals (U=378.000, p<.01) and between teachers and assistant principals (U=175.000, p<.01). These findings suggest principals describe themselves and their attitudes as feeling irritation at teachers inattentiveness in the learning setting more than teachers believe the attitudes of their principals are toward them.

Scores for question five of teacher insensitivity toward learners of the IPI were calculated, with mean ranks for teachers being much lower than principals and assistant principals for this question (see Table 39). A Kruskal-Wallis H test indicated no significant difference between the groups on question five, $?^2$ (2) =0.987, p>.05.

Scores for question 13 of teacher insensitivity toward learners of the IPI were

calculated, with mean ranks for teachers being much lower than principals and assistant principals for this question (see Table 39). A Kruskal-Wallis H test indicated no significant difference between the groups on question 13, $?^2$ (2) =5.246, p>.05.

Comparisons of parametric and nonparametric scores reveal levels of significance for both methods for the questions 18, 27, 32 and 41 and no significance for questions five, and 13. Probability levels for question 36 was different for ANOVA (p>.05) and the Kruskal-Wallis H test (p<.05). Levels of significance varied for post-hoc tests on: question 18 between teacher and principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01) and between teacher and assistant principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01); question 27 between teacher and principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01) and between teacher and assistant principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01); question 32 between teacher and principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01) and between teacher and assistant principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01); question 36 between teacher and principals on the Games-Howell test (p>.05) and Mann Whitney U test (p<.05) and between teacher and assistant principals on the Games-Howell test (p>.05) and Mann Whitney U test (p>.05); and , question 41 between teacher and principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01) and between teacher and assistant principals on the Games-Howell test (p<.05) and Mann Whitney U test (p<.01). The most noticeable differences in significance levels were for: question 36 ANOVA (p>.05) and the Kruskal-Wallis H test (p<.05); and, question 36 post-hoc results between teacher and principals on the Games-Howell (p>.05) and Mann

Whitney U test ($p<.05$).

Research Question Two

2. What is the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning?

In summary, data analysis of the scores of specific IPI sub-areas and sub-area questions indicates a gap between principals and teachers in the areas of teacher empathy toward learners, teacher trust of learner, accommodating learner uniqueness, and teacher insensitivity toward learners. The attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning is generally favorable. This is evidenced by the following data.

Principals' responses on the IPI in comparison to the teachers were higher and in the sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity, scores of principals were noticeably higher than teachers. This indicates principals believe they express attitudes of empathy, trust, and make accommodation to teacher uniqueness. The higher score in the sub-area of teacher insensitivity to learners indicates a lack of sensitivity to teachers as learners due to the fact these items are stated in a negative manner. Principal responses to specific IPI questions offer additional insight in the sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity.

Data from ANOVA/Kruskal-Wallis and *t*-test/Mann Whitney U tests reveal the answers of principals were significantly higher than the answers of teachers except for teacher insensitivity toward learners where higher scores are not good due to the fact the

items are negatively stated. The results in each sub-area are in relation and comparison to the responses of teachers.

In the sub-area of teacher empathy with learners with five questions, responses indicate the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning principals was they: (a) feel fully prepared to teach; (b) notice and acknowledge positive changes in teachers; (c) express appreciation to teachers who actively participate; and (d) promote positive self-esteem in teachers.

In the sub-area of teacher trust of learners with 11 questions, responses indicate the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning principals was they: (a) purposefully communicate to teachers that each is uniquely important; (b) feel teachers need to be aware of and communicate their thoughts and feelings; (c) hear what teachers indicate their learning needs are; (d) engage teachers in clarifying their own aspirations; (e) develop supportive relationships with teachers; and, (f) respect the dignity and integrity of teachers.

In the sub-area of accommodating learner uniqueness with seven questions, responses indicate the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning principals was they: (a) believe that teachers vary in the way they acquire, process, and apply subject matter knowledge; and, (b) encourage teachers to solicit assistance from other teachers. The ANOVA analysis revealed one question that was not significant ($p>.05$) that Kruskal-Wallis H test found significant ($p<.05$). The attitude of

principals for this question is they really listen to what teachers have to say.

In the sub-area of teacher insensitivity toward learners with seven questions, responses indicate the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning principals was they: (a) feel impatient with teachers' progress; (b) experience frustration with teacher apathy; (c) have difficulty with the amount of time teachers need to grasp various concepts; and, (d) feel irritation at teacher inattentiveness in the learning setting. The ANOVA analysis revealed one question that was not significant ($p>.05$) that Kruskal-Wallis H test found significant ($p<.05$). The attitude of principals for this question is they get bored with the many questions teachers ask.

A Pearson product moment correlation coefficient was used to examine the relationship between sub-area scores on the IPI for principals. Significant positive correlations were found between teacher empathy with learners and teacher trust of learners ($r=.478$, $p<.05$) and teacher trust of learners and accommodating learner uniqueness ($r=.504$, $p<.01$). Pearson correlations can be found in Table 40.

Table 40 *Pearson Correlations of IPI Sub-areas and Principals*

Variable	1.	2.	4.	5.
1. Teacher empathy with learners	-	.478*	.343	-.165
2. Teacher trust of learners		-	.504**	-.262
4. Accommodating learner uniqueness			-	.257
5. Teacher insensitivity toward learners				-

* Significant at the 0.05 level (2-tailed), ** Significant at the 0.01 level (2-tailed)

A Spearman's Rho correlation was used to examine the relationship between sub-

scores on the IPI for principals. Significant positive correlations were found between teacher empathy with learners and teacher trust of learner ($r=.383$, $p<.05$) and teacher trust of learners and accommodating learner uniqueness ($r=.347$, $p<.05$). Spearman correlations between sub-areas of the IPI can be found in Table 41. While principals

Table 41 *Spearman Correlations of IPI Sub-areas and Principals*

Variable	1.	2.	4.	5.
1. Teacher empathy with learners	-	.383*	.305	.150
2. Teacher trust of learners		-	.347*	-.164
4. Accommodating learner uniqueness			-	.184
5. Teacher insensitivity toward learners				-

* Significant at the 0.05 level (2-tailed)

demonstrate the interconnectedness of the sub-areas teacher empathy with learners and teacher trust of learners, and teacher trust of learners and accommodating learner uniqueness, their scores reflect a much higher understanding and application of the principles of these sub-areas.

From the perspective of principals in comparison with teachers, principals have a favorable attitude toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning except in the sub-area of teacher insensitivity toward learners. In the four sub-areas of the IPI discussed, a gap remains between what principals believe their attitudes are toward teachers and what teachers actually believe the attitudes of their principals are towards them in creating the conditions conducive for learning in school-based staff development. While principals say they empathize with teachers as learners, trust teachers as learners,

accommodate teachers' uniqueness as learners, and demonstrate insensitivity toward them as learners the perception of teachers which will be presented in the next section is much different.

Research Question Three

3. What do teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning?

In summary, data analysis of the scores of specific IPI sub-areas and sub-area questions indicates a gap between teachers and principals in the areas of teacher empathy toward learners, teacher trust of learner, accommodating learner uniqueness, and teacher insensitivity toward learners. What teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning is generally guarded and is often contradictory to what principals believe their attitudes are toward teachers. This is evidenced by the following data.

Teachers' responses on the IPI in comparison to the principals were lower. In the sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity the scores of teachers were noticeably lower than principals. This indicates teachers believe their principals do not express attitudes of empathy, trust, and make accommodation to teacher uniqueness. The lower score in the sub-area of teacher insensitivity toward learners indicates some sensitivity to teachers as learners due to the fact these items are negatively stated.

Teacher responses to specific IPI questions offer additional insight in the sub-

areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity. Data from ANOVA/Kruskal-Wallis and *t*-test/Mann Whitney U tests reveal the answers of teachers were significantly lower than the answers of teachers except for teacher insensitivity toward learners where lower scores are good due to the fact the items are negatively stated. The results in each sub-area are in relation to the responses of principals.

In the sub-area of teacher empathy with learners with five questions, responses indicate teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning are they: (a) fully prepared to teach but not as much as principals actually believe they are; (b) notice and acknowledge positive changes in teachers but not as much as principals actually believe they do; (c) express appreciation to teachers who actively participate but not as much as principals actually believe they do; and (d) promote positive self-esteem in teachers but not as much as principals actually believe they do.

In the sub-area of teacher trust of learners with 11 questions, responses indicate teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning are they: (a) purposefully communicate to teachers that each is uniquely important but not as much as principals actually believe they do; (b) feel teachers need to be aware of and communicate their thoughts and feelings but not as much as principals actually believe they do; (c) hear what teachers indicate their learning needs are but not as much as principals actually believe they do; (d) engage teachers in clarifying their own

aspirations but not as much as principals actually believe they do; (e) develop supportive relationships with teachers but not as much as principals actually believe they do; and, (f) respect the dignity and integrity of teachers but not as much as principals actually believe they do.

In the sub-area of accommodating learner uniqueness with seven questions, responses indicate the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning principals was they: (a) believe that teachers vary in the way they acquire, process, and apply subject matter knowledge but not as much as principals actually believe they do; and, (b) encourage teachers to solicit assistance from other teachers but not as much as principals actually believe they do. The ANOVA analysis revealed one question that was not significant ($p>.05$) that Kruskal-Wallis H test found significant ($p<.05$). The attitude of teachers for this question is that principals really listen to what teachers have to say but not as much as principals actually believe they do.

In the sub-area of teacher insensitivity toward learners with seven questions, responses indicate the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning principals was they: (a) do not feel impatient with teachers' progress which is less than what principals actually believe they do; (b) do not experience frustration with teacher apathy which is less than what principals actually believe they do; (c) do not have difficulty with the amount of time teachers need to grasp various concepts which is less than what principals actually believe they do; and, (d) do not feel irritation at teacher inattentiveness in the learning setting which is less than what principals actually believe

they do. The ANOVA analysis revealed one question that was not significant ($p>.05$) that Kruskal-Wallis H test found significant ($p<.05$). The attitude of teachers for this question is that principals do not get bored with the many questions teachers ask which is less than what principals actually believe they do. In general, teachers believe their principals express empathy with them as learners sometimes, trust them as learners sometimes, accommodate their learner uniqueness sometimes, and are insensitive to them as learners somewhere between never and rarely.

A Pearson product moment correlation coefficient was used to examine the relationship between sub-area scores on the IPI for teachers. Significant positive correlations were found between teacher empathy with learners and: teacher trust of learners ($r=.856$, $p<.01$), accommodating learner uniqueness ($r=.757$, $p<.01$), and teacher insensitivity toward learners ($r=.-460$, $p<.01$). Significant positive correlations were found between teacher trust of learners and: accommodating learner uniqueness ($r=.830$, $p<.01$), and teacher insensitivity toward learners ($r=-.480$, $p<.01$). Significant positive correlations were found between accommodating learner uniqueness and teacher insensitivity toward learners ($r=-.392$, $p<.01$). Pearson correlations for teachers can be found in Table 42.

Table 42 *Pearson Correlations of IPI Sub-areas and Teachers*

Variable	1.	2.	4.	5.
1. Teacher empathy with learners	-	.856**	.757**	-.460**
2. Teacher trust of learners		-	.830**	-.480**
4. Accommodating learner uniqueness			-	-.392**
5. Teacher insensitivity toward learners				-

** Significant at the 0.01 level (2-tailed)

A Spearman's Rho correlation was used to examine the relationship between sub-scores on the IPI for teachers. Significant positive correlations were found between teacher empathy with learners and: teacher trust of learners (r=.695, p<.01), accommodating learner uniqueness (r=.586, p<.01), and teacher insensitivity toward learners (r=.-370, p<.01). Significant positive correlations were found between teacher trust of learners and: accommodating learner uniqueness (r=.661, p<.01), and teacher insensitivity toward learners (r=-.351, p<.01). Significant positive correlations were found between accommodating learner uniqueness and teacher insensitivity toward learners (r=-.291, p<.01). Spearman correlations between sub-areas of the IPI for teachers can be found in Table 43.

Table 43 *Spearman Correlations of IPI Sub-areas and Teachers*

Variable	1.	2.	4.	5.
1. Teacher empathy with learners	-	.695**	.586**	-.370**
2. Teacher trust of learners		-	.661**	-.351**
4. Accommodating learner uniqueness			-	-.291**
5. Teacher insensitivity toward learners				-

** Significant at the 0.01 level (2-tailed)

These correlations reveal what teachers believe about the strength of the sub-areas yet their total scores were noticeably lower than the scores of principals. This indicates teachers believe these areas are associated together, however; their principals do not adhere to them.

From the perspective of teachers in comparison with principals, teachers as learners believe the attitudes of their principals toward them in school-based staff development regarding the principles of creating the conditions conducive for learning

are not very strong except in the sub-area of teacher insensitivity toward learners. Teachers as learners believe the attitudes of the principals toward them in school-based staff development regarding the principles of creating the conditions for learning is not as strong as principals' actual attitudes toward teachers in the areas of teacher empathy with learners, teacher trust of learners, and accommodating teacher uniqueness. Teachers as learners believe the attitudes of principals toward them in school-based staff development regarding the principles of creating the conditions for learning is stronger than principals' actual attitudes toward teachers in the area of teacher insensitivity toward learners.

In the four sub-areas of the IPI discussed, a gap remains between what teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning and what principals actually believe towards teachers in creating the conditions conducive for learning in school-based staff development. From the opposite point of view, while teachers say principals do not empathize with teachers as learners, do not trust teachers as learners, do not accommodate their uniqueness as learners, and do not demonstrate insensitivity the perception of principals is much different.

Additional Pertinent Study Data

A Pearson product moment correlation coefficient was used to examine the relationship between the IPI total mean and the RPS mean on demographic data for teachers and principals. Significant positive correlations were found between the IPI total mean and the RPS mean with respect to: teacher age 30-39 (r=.402, p<.01), teacher age 40-49 (r=.350, p<.05), and principal age 40-49 (r=.765, p<.05). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to:

teacher gender male (r=.413, p<.05), teacher gender female (r=.413, p<.05), and principal gender female (r=.715, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to: teacher building level K-6 (r=.285, p<.01), teacher building level 7, 8 (r=.498, p<.01), and principal building level K-6 (r=.616, p<.05). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to: years as teacher 6-10 (r=.351, p<.01), and years as teacher 11-15 (r=.361, p<.05). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to: teacher highest degree master's (r=.323, p<.01), teacher highest degree specialist (r=.989, p<.01), and principal highest degree specialist (r=.712, p<.05).

A Spearman's Rho correlation was used to examine the relationship between the IPI total mean and the RPS mean on demographic data for teachers and principals. Significant positive correlations were found between the IPI total mean and the RPS mean with respect to: teacher age 30-39 (r=.431, p<.01), and teacher age 40-49 (r=.365, p<.05). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to: teacher gender male (r=.359, p<.05), teacher gender female (r=.315, p<.01), and principal gender female (r=.780, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to: teacher building level K-6 (r=.296, p<.01), and teacher building level 7, 8 (r=.573, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to: years as teacher 6-10 (r=.350, p<.05), years as teacher 11-15 (r=.366, p<.05), and years as teacher 21+ (r=.440, p<.05). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to:

teacher highest degree master's (r=.333, p<.01), teacher highest degree specialist (r=.971, p<.01), and principal highest degree specialist (r=.709, p<.05).

Comparisons between Pearson and Spearman correlations reveal an overlap of 10 identical correlations for teachers and two identical correlations for principals. Of the 10 identical correlations for teachers, seven Spearman correlations were higher than the Pearson and three were higher. Pearson correlations generated two correlations not found in Spearman: principal age 40-49; and, principal building level K-6. Spearman correlations generated one correlation not found in Pearson: years as teacher 21+.

These correlations suggest: age (30-39 and 40-49) for teachers and principals is associated with the IPI total mean and the RPS mean; gender (male and female) for teachers is associated with the IPI total mean and the RPS mean; gender (female) for principals is associated with the IPI total mean and the RPS mean; building level (K-6 and 7, 8) for teachers is associated with the IPI total mean and the RPS mean; years as teacher/principal (6-10 and 11-15) for teachers and principals is associated with the IPI total mean and the RPS mean; highest degree (master's and specialist) for teachers is associated with the IPI total mean and the RPS mean; and, highest degree (specialist) for principals is associated with the IPI total mean and the RPS mean.

In summary, the IPI total mean and RPS mean are associated with teachers in the 30-49 age range, who have taught 6-15 years, are both male and female gender, and who have master's and specialist degrees. All of these factors describe experienced veteran teachers. These teachers see the connection between the characteristics of the IPI which are represented by the seven sub-areas and the RPS. There also is an association between the IPI total mean and the RPS mean and female principals and those principals with

specialist degrees. This indicates female principals and all principals with specialist degrees see the connection between the characteristics of the IPI which are represented by the seven sub-areas and the RPS. Results for Pearson correlations can be found in Table 44 and results for Spearman correlations can be found in Table 45.

Table 44 *Pearson Correlations of IPI Total Mean and RPS Mean for Demographic Data*

	Teacher			Principal	
Variable	N	Correlation	2 Tailed	N	Correlation	2 Tailed
Age						
20-29 years	22	.118	.088	1	a	a
30-39 years	58	.402**	.002	15	-.050	.860
40-49 years	47	.350*	.016	7	.765*	.045
50-59 years	34	.193	.275	5	.578	.307
60+ years	1	a	a	0		
None	4	-.069	.956	0		
Total	166			28		
Gender						
Male	32	.413*	.019	15	-.050	.860
Female	133	.284**	.001	13	.715**	.006
None	1	a	a			
Total	166			28		
Building Level						
Grade PK	5	.766	.131	0		
Grade K-6	110	.285**	.003	14	.616*	.019
Grade 7, 8	24	.498**	.016	6	-.212	.687
Grade 9-12	24	.178	.407	8	-.383	.349
None	3	-.069	.956			
Total	166			30		
Yrs as Teacher/Principal						
0-5 years	24	.102	.636	15	.268	.334
6-10 years	53	.351**	.010	7	-.132	.778
11-15 years	37	.361*	.028	4	.469	.531
16-20 years	18	.263	.291	1	a	a
21+ years	28	.317	.100	1	a	a
None	6	.451	.549	0		
Total	166			28		
Highest Degree						
Bachelor's	26	.238	.242	0		
Master's	128	.323**	.000	17	-.042	.872
Specialist	6	.989**	.000	10	.712*	.021
Doctorate	0			1	a	a
None	6	.068	.914			
Total	166			28		

** Significant at the 0.01 level (2-tailed); a=Cannot be computed because at least one of the variables is const ant

Table 45 *Spearman Correlations of IPI Total Mean and RPS Mean for Demographic Data*

	Teacher			Principal		
Variable	N	Correlation	2 Tailed	N	Correlation	2 Tailed
Age						
20-29 years	22	.088	.697	1	a	a
30-39 years	58	.431**	.001	15	.145	.605
40-49 years	47	.365*	.012	7	.714	.071
50-59 years	34	.310	.074	5	.132	.833
60+ years	1	a	a	0		
None	4	-.500	.667	0		
Total	166			28		
Gender						
Male	32	.359*	.044	15	-.099	.726
Female	133	.315**	.000	13	.780**	.002
None	1	a	a			
Total	166			28		
Building Level						
Grade PK	5	.872	.054	0		
Grade K-6	110	.296**	.002	14	.513	.061
Grade 7, 8	24	.573**	.004	6	.371	.468
Grade 9-12	24	.151	.482	8	-.180	.670
None	3	-.069	.956			
Total	166			28		
Yrs as Teacher/Principal						
0-5 years	24	.063	.771	15	.475	.114
6-10 years	53	.350*	.010	7	.000	1.000
11-15 years	37	.366*	.026	4	.600	.400
16-20 years	18	.232	.355	1	a	a
21+ years	28	.440*	.019	1	a	a
None	6	a	a	0		
Total	166			28		
Highest Degree						
Bachelor's	26	.264	.192			
Master's	128	.333**	.000	17	-.107	.677
Specialist	6	.971**	.001	10	.709*	.022
Doctorate	0			1	a	a
None	6	-.200	.747			
Total	166			28		

** Significant at the 0.01 level (2-tailed); a=Cannot be computed because at least one of the variables is constant

A Pearson product moment correlation coefficient was used to examine the relationship between the IPI sub-areas teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learning and demographic factors for teachers and principals. These sub-areas had previously been identified as being significant for job classification. The demographic factors of significance were building level and highest degree.

Significant positive correlations were found between sub-area teacher insensitivity and building level for teachers (r=.192, p<.05). Results for Pearson correlations for teachers can be found in Table 46. Significant positive correlations were found between sub-area teacher empathy with learners and highest degree for principals (r=.422, p<.05). Results for Pearson correlations for principals can be found in Table 47.

Table 46 *Pearson Correlations of IPI Sub-areas and Building Level for Teachers*

Variable	Correlation	2 Tailed
Teacher empathy with learners	-.082	.298
Teacher trust of learners	-.067	.394
Accommodating learner uniqueness	-.102	.196
Teacher insensitivity toward learners	.192*	.013

* Significant at the 0.05 level (2-tailed).

Table 47 *Pearson Correlations of IPI Sub-areas and Highest Degree for Principals*

Variable	Correlation	2 Tailed
Teacher empathy with learners	.422*	.025
Teacher trust of learners	.286	.141
Accommodating learner uniqueness	.218	.265
Teacher insensitivity toward learners	.000	1.000

* Significant at the 0.05 level (2-tailed).

A Spearman's Rho correlation was used to examine the relationship between the IPI sub-areas teacher empathy with learners, teacher trust of learners, accommodating

learner uniqueness, and teacher insensitivity toward learning and demographic factors for teachers and principals. Significant positive correlations were found between sub-area teacher insensitivity and building level for teachers (r=.212, p<.01). Results for Spearman correlations for teachers can be found in Table 48. Significant positive correlations were found between sub-area teacher empathy with learners and highest degree for principals (r=.459, p<.05). Results for Spearman correlations for principals can be found in Table 49.

Table 48 *Spearman Correlations of IPI Sub-areas and Building Level for Teachers*

Variable	Correlation	2 Tailed
Teacher empathy with learners	-.096	.222
Teacher trust of learners	-.072	.364
Accommodating learner uniqueness	-.129	.100
Teacher insensitivity toward learners	.212**	.006

** Significant at the 0.01 level (2-tailed).

Table 49 *Spearman Correlations of IPI Sub-areas and Highest Degree for Principals*

Variable	Correlation	2 Tailed
Teacher empathy with learners	.459*	.014
Teacher trust of learners	.270	.164
Accommodating learner uniqueness	.266	.266
Teacher insensitivity toward learners	.148	.452

* Significant at the 0.05 level (2-tailed).

Comparisons between Pearson and Spearman correlations reveal similar correlations for teachers and principals. These correlations suggest building level for teachers is associated with sub-area teacher insensitivity and highest degree for principals is associated with sub-area teacher empathy with learners.

A Pearson product moment correlation coefficient was used to examine the relationship between the IPI total mean and the RPS mean on adult learning principles for

teachers and principals. Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-no exposure: no for teachers (r=.301, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-reading in a book or journal article: yes for teachers (r=.300, p<.05), no for teachers (r=.333, p<.01), and yes for principals (r=.468, p<.05).

Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-bachelor's level course: yes for teachers (r=.274, p<.05), and no for teachers (r=.345, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-master's level course: yes for teachers (r=.271, p<.01), and no for teachers (r=.385, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-doctorate level course: yes for teachers (r=1.000, p<.01), and no for teacher (r=.307, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-workshop on adult learning: yes for teachers (r=.414, p<.05), and no for teachers (r=.293, p<.01).

Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-conference on adult learning: no for teachers (r=.312, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-mentor: no for teachers (r=.340, p<.01), and yes for principals (r=.637, p<.05). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to

adult learning principles-observation: no for teachers (r=.449, p<.01), and yes for principals (r=.540, p<.05). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-professional dialogue: no for teachers (r=.354, p<.05), and yes for principals (r=.495, p<.05).

Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-reflection: no for teachers (r=.445, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-gut feelings about what I ought to do as a teacher/principal: yes for teachers (r=.299, p<.01), and no for teachers (r=.332, p<.01).

A Spearman's Rho correlation was used to examine the relationship between the IPI total mean and the RPS mean on adult learning principles for teachers and principals. Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-no exposure: yes for teachers (r=.442, p<.05), and no for teachers (r=.318, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-reading in a book or journal article: yes for teachers (r=.331, p<.01), no for teachers (r=.336, p<.01), and yes for principals (r=.491, p<.05).

Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-bachelor's level course: yes for teachers (r=.267, p<.05), and no for teachers (r=.391, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-master's level course: yes for teachers (r=.268, p<.01), no for

teachers (r=.451, p<.01), and yes for principals (r=.531, p<.05). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-doctorate level course: yes for teachers (r=1.000, p<.01), and no for teacher (r=.319, p<.01).

Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-workshop on adult learning: yes for teachers (r=.502, p<.01), and no for teachers (r=.294, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-conference on adult learning: no for teachers (r=.318, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-mentor: no for teachers (r=.350, p<.01), and yes for principals (r=.582, p<.05.

Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-observation: yes for teachers (r=.223, p<.05), no for teachers (r=.442, p<.01), and yes for principals (r=.553, p<.05). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-professional dialogue: yes for teacher (r=.282, p<.05), and no for teachers (r=.340, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-reflection: no for teachers (r=.420, p<.01). Significant positive correlations were found between the IPI total mean and the RPS mean with respect to adult learning principles-gut feelings about what I ought to do as a teacher/principal: yes for teachers (r=.308, p<.01), and no for teachers (r=.352, p<.01).

Comparisons between Pearson and Spearman correlations reveal an overlap of 18 identical correlations for teachers and three identical correlations for principals. Of the 18 identical correlations for teachers, 14 Spearman correlations were higher than the Pearson and six were higher. Pearson correlations generated one correlation not found in Spearman: adult learning principles-professional dialogue yes for principals. Spearman correlations generated four correlations not found in Pearson: adult learning principles-no exposure yes for teachers, adult learning principles-observation yes for teachers; adult learning principles-professional dialogue yes for teachers; and, adult learning principles-master's level course yes for principals.

These correlations suggest that for adult learning principles: exposure to adult learning principles for teachers and principals is associated with the IPI total mean and the RPS mean; reading in a book or journal article yes for teachers and principals is associated with the IPI total mean and the RPS mean; reading in a book or journal article no for teachers is associated with the IPI total mean and the RPS mean; bachelor's level course yes and no for teachers is associated with the IPI total mean and the RPS mean; master's level course yes and no for teachers is associated with the IPI total mean and the RPS mean; doctorate level course yes and no for teachers is associated with the IPI total mean and the RPS mean; workshop on adult learning yes and no for teachers is associated with the IPI total mean and the RPS mean; conference on adult learning no for teachers is associated with the IPI total mean and the RPS mean; mentor no for teachers and yes for principals is associated with the IPI total mean and the RPS mean; observation no for teachers and yes for principals is associated with the IPI total mean and the RPS mean; professional dialogue no for teachers is associated with the IPI total

mean and the RPS mean; reflection no for teachers is associated with the IPI total mean and the RPS mean; gut feelings about what I ought to do as a teacher/principal yes and no for teachers is associated with the IPI total mean and the RPS mean.

In summary, significant correlations were found between the IPI total mean and the RPS for teachers in the area of formal and/or informal exposure to adult learning concepts for both yes and no in the following areas: reading in a book or journal article, bachelor's course, master's course, doctorate course, workshop on adult learning, and gut feelings about what I ought to do as a teacher. These results might indicate teachers appear to be divided on these issues or their experiences in each of these areas are different, not necessarily right or wrong. Significant correlations were found between the IPI total mean and the RPS for principals in the area of formal and/or informal exposure to adult learning concepts for the following areas: reading in a book or journal article, mentor, observation, and professional dialogue. Results for Pearson correlations can be found in Table 50 and results for Spearman correlations can be found in Table 51.

Table 50 *Pearson Correlations of IPI Total Mean and RPS Mean for Adult Learning Principles*

	Teacher			Principal		
Variable	N	Correlation	2 Tailed	N	Correlation	2 Tailed
No Exposure						
Yes	25	.379	.062	0		
No	141	.301**	.000	28	.206	.293
Reading book or journal article						
Yes	75	.300*	.015	19	.468*	.044
No	91	.333**	.001	9	-.030	.938
Bachelor's Level Course						
Yes	73	.274*	.023	12	.167	.603
No	93	.345**	.001	16	.193	.474
Master's Level Course						
Yes	106	.271**	.006	16	.541	.031
No	60	.385**	.002	12	.051	.875
Doctorate Level Course						
Yes	2	1.000**		5	.464	.431
No	164	.307**	.000	23	.129	.558
Workshop on Adult Learning						
Yes	36	.414*	.012	6	.759	.080
No	130	.293**	.001	22	.166	.460
Conference on Adult Learning						
Yes	23	.338	.114	5	.713	.177
No	143	.312**	.000	23	.174	.426
Mentor						
Yes	42	.226	.156	12	.637*	.026
No	124	.340**	.000	16	-.059	.835
Observation						
Yes	93	.198	.058	19	.540*	.017
No	73	.449**	.000	9	-.200	.606
Professional Dialogue						
Yes	67	.241	.052	19	.495*	.031
No	99	.354**	.000	9	-.049	.900
Reflection						
Yes	69	.162	.183	16	.447	.083
No	94	.445**	.000	12	.003	.992
Gut feelings about what I ought to do as a teacher/principal						
Yes	84	.299**	.006	17	.414	.098
No	81	.332**	.002	11	.062	.857

*Significant at the 0.05 level (2 tailed); ** Significant at the 0.01 level (2-tailed)

Table 51 *Spearman Correlations of IPI Total Mean and RPS Mean for Adult Learning Principles*

	Teacher			Principal		
Variable	N	Correlation	2 Tailed	N	Correlation	2 Tailed
No Exposure						
Yes	25	.442*	.027	0		
No	141	.318**	.000	28	.315	.103
Reading book or journal article						
Yes	75	.331**	.004	19	.491*	.033
No	91	.336**	.001	9	-.165	.672
Bachelor's Level Course						
Yes	73	.267*	.023	12	.242	.448
No	93	.391**	.000	16	.398	.127
Master's Level Course						
Yes	106	.268**	.006	16	.531*	.034
No	60	.451**	.000	12	.099	.759
Doctorate Level Course						
Yes	2	1.000**		5	.616	.269
No	164	.319**	.000	23	.242	.267
Workshop on Adult Learning						
Yes	36	.502**	.002	6	.638	.173
No	130	.294**	.001	22	.288	.193
Conference on Adult Learning						
Yes	23	.391	.065	5	.600	.285
No	143	.318**	.000	23	.224	.206
Mentor						
Yes	42	.214	.178	12	.582*	.047
No	124	.350**	.000	16	.169	.547
Observation						
Yes	93	.223*	.033	19	.553*	.019
No	73	.442**	.000	9	.038	.923
Professional Dialogue						
Yes	67	.282*	.022	19	.430	.066
No	99	.340**	.001	9	.051	.896
Reflection						
Yes	69	.211	.082	16	.406	.119
No	94	.420**	.000	12	.173	.590
Gut feelings about what I ought to do as a teacher/principal						
Yes	84	.308**	.004	17	.473	.055
No	81	.352**	.001	11	.272	.418

*Significant at the 0.05 level (2 tailed); ** Significant at the 0.01 level (2-tailed)

A Pearson product moment correlation coefficient was used to examine the relationship between sub-areas teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learning and the receipt of formal and/or informal exposure to adult learning concepts. The factors of significance were: workshop on adult learning for teachers; and, observation for teachers.

Significant negative correlations were found between teacher empathy with learners and workshop on adult learning for teachers (r=-.155, p<.05). Results for this Pearson correlation can be found in Table 52. Significant positive correlations were found between accommodating learner uniqueness and observation (r=.157, p<.05). Results for this correlation can be found in Table 53.

Table 52 *Pearson Correlations of IPI Sub-areas and Workshop on Adult Learning for Teachers*

Variable	Correlation	2 Tailed
Teacher empathy with learners	-.155*	.046
Teacher trust of learners	-.138	.076
Accommodating learner uniqueness	-.136	.081
Teacher insensitivity toward learners	.070	.364

* Significant at the 0.05 level (2-tailed).

Table 53 *Pearson Correlations of IPI Sub-areas and Observation for Teachers*

Variable	Correlation	2 Tailed
Teacher empathy with learners	.003	.974
Teacher trust of learners	.086	.269
Accommodating learner uniqueness	.157*	.044
Teacher insensitivity toward learners	-.041	.602

* Significant at the 0.05 level (2-tailed).

A Spearman's Rho correlation was used to examine the relationship between the IPI sub-areas teacher empathy with learners, teacher trust of learners, accommodating

learner uniqueness, and teacher insensitivity toward learning and the receipt of formal and/or informal exposure to adult learning concepts. Significant negative correlations were found between sub-area teacher empathy with learning for teacher (r=-.175, p<.05), and teacher trust of learners (r=-.154, p<.05). Results for these Spearman correlations for teachers can be found in Table 54. No significant correlations were found between sub-areas and observation for principals. Results for these Spearman correlations for teachers can be found in Table 55.

Table 54 *Spearman Correlations of IPI Sub-areas and Workshop on Adult Learning for Teachers*

Variable	Correlation	2 Tailed
Teacher empathy with learners	-.175*	.024
Teacher trust of learners	-.154*	.047
Accommodating learner uniqueness	-.129	.098
Teacher insensitivity toward learners	.068	.381

** Significant at the 0.01 level (2-tailed).

Table 55 *Spearman Correlations of IPI Sub-areas and Observation for Teachers*

Variable	Correlation	2 Tailed
Teacher empathy with learners	-.023	.765
Teacher trust of learners	.051	.516
Accommodating learner uniqueness	.118	.130
Teacher insensitivity toward learners	-.052	.504

Comparisons between Pearson and Spearman correlations reveal similar correlations for teachers. These correlations suggest the receipt of formal and/or informal exposure to adult learning concepts: workshop on adult learning is negatively associated with teacher empathy with learners for teachers; and, observation is associated with

accommodating learner uniqueness for teachers. Spearman correlations added workshop on adult learning is negatively associated with teacher trust of learners and revealed no association between observation and accommodating learner uniqueness. In summary, there is a slight negative association between sub–area teacher empathy with learners and formal and/or informal exposure to adult learning concepts in a workshop for teachers.

A Pearson product moment correlation coefficient was used to examine the relationship between sub-areas teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learning and the receipt of formal and/or informal exposure to adult learning concepts. The factors of significance were: bachelor's level course for principals, doctorate level course for principals, and gut feelings about what I ought to do as a teacher/principal for principals. Results for this Pearson correlation can be found in Table 56.

Table 56 *Pearson Correlations of IPI Sub-areas and Bachelor's Level Course for Principals*

Variable	Correlation	2 Tailed
Teacher empathy with learners	.432*	.022
Teacher trust of learners	.054	.785
Accommodating learner uniqueness	.153	.438
Teacher insensitivity toward learners	.072	.717

* Significant at the 0.05 level (2-tailed).

Significant correlations were found between teacher empathy with learners and bachelor's level course for principals (r=.432, p<.05). No significant correlations were found between the sub-areas and doctorate level course for principals. Results for this

Pearson correlation can be found in Table 57.

Table 57 *Pearson Correlations of IPI Sub-areas and Doctorate Level Course for Principals*

Variable	Correlation	2 Tailed
Teacher empathy with learners	-.326	.091
Teacher trust of learners	-.338	.079
Accommodating learner uniqueness	-.288	.137
Teacher insensitivity toward learners	.000	1.000

* Significant at the 0.05 level (2-tailed).

Significant negative correlations were found between accommodating learner uniqueness and gut feelings about what I ought to do as a teacher/principal for principals (r=-.376, p<.05). Results for this correlation can be found in Table 58.

Table 58 *Pearson Correlations of IPI Sub-areas and Gut Feelings about What I Ought to Do as a Teacher/Principal for Principals*

Variable	Correlation	2 Tailed
Teacher empathy with learners	.182	.353
Teacher trust of learners	-.082	.678
Accommodating learner uniqueness	-.376*	.049
Teacher insensitivity toward learners	-.097	.624

* Significant at the 0.05 level (2-tailed).

A Spearman's Rho correlation was used to examine the relationship between the IPI sub-areas teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learning and the receipt of formal and/or informal exposure to adult learning concepts. No significant correlations were

found between sub-areas and bachelor's level course for principals. Results for these Spearman correlations for principals can be found in Table 59.

Table 59 *Spearman Correlations of IPI Sub-areas and Bachelor's Level Course for Principals*

Variable	Correlation	2 Tailed
Teacher empathy with learners	.345	.072
Teacher trust of learners	.050	.800
Accommodating learner uniqueness	.095	.630
Teacher insensitivity toward learners	.126	.522

Significant negative correlations were found between teacher empathy with learners and doctorate level course for principals (r=-.421, p<.05). Results for this correlation can be found in Table 60.

Table 60 *Spearman Correlations of IPI Sub-areas and Doctorate Level Course for Principals*

Variable	Correlation	2 Tailed
Teacher empathy with learners	-.421*	.026
Teacher trust of learners	-.324	.092
Accommodating learner uniqueness	-.298	.123
Teacher insensitivity toward learners	.053	.791

No significant correlations were found between sub-areas and gut feelings about what I ought to do as a teacher/principal for principals. Results for this correlation can be

found in Table 61.

Table 61 *Spearman Correlations of IPI Sub-areas and Gut Feelings about What I Ought to Do as a Teacher/Principal for Principals*

Variable	Correlation	2 Tailed
Teacher empathy with learners	.172	.380
Teacher trust of learners	-.074	.708
Accommodating learner uniqueness	-.321	.096
Teacher insensitivity toward learners	-.037	.853

Comparisons between Pearson and Spearman correlations reveal mixed correlation results for principals. Significant Pearson correlations were not significant for Spearman correlations. Significant Spearman correlations were not significant for Pearson correlations.

A Pearson product moment correlation coefficient was used to examine the relationship between the RPS and the receipt of formal and/or informal exposure to adult learning concepts. Results for this Pearson correlation can be found in Table 62.

Table 62 *Pearson Correlations of RPS and Adult Learning Formal/Informal Exposure for Principals*

Variable	Correlation	2 Tailed
Master's Level Course	.460*	.014
Professional Dialogue	.530**	.004
Reflection	.460*	.014

** Significant at the 0.01 level (2-tailed); * Significant at the 0.05 level (2-tailed).

The factors of significance were: master's level course, professional dialogue, and reflection. No significant correlations were found for teachers. Significant correlations were found between the RPS and: master's level course (r=.480, p<.05), professional

dialogue (r=.530, p<.01), and reflection (r=.460, p<.05).

A Spearman's Rho correlation was used to examine the relationship between the RPS and/or informal exposure to adult learning concepts. Significant correlations were found between the RPS and: master's level course (r=.430, p<.05), professional dialogue (r=.508, p<.01), and reflection (r=.408, p<.05). Results for these Spearman correlations for principals can be found in Table 63.

Table 63 *Spearman Correlations of RPS and Adult Learning Formal/Informal Exposure for Principals*

Variable	Correlation	2 Tailed
Master's Level Course	.430*	.022
Professional Dialogue	.508**	.006
Reflection	.408*	.031

** Significant at the 0.01 level (2-tailed); * Significant at the 0.05 level (2-tailed).

Comparisons between Pearson and Spearman correlations reveal similar correlations for principals. These correlations suggest the RPS is associated with receipt of formal and/or informal exposure to adult learning concepts from master's level course, professional dialogue, and reflection. In summary, there is an association between the RPS and formal and/or informal exposure to adult learning concepts in a master's course, professional dialogue, and reflection for principals.

A Pearson product moment correlation coefficient was used to examine the relationship between sub-areas teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learning and location. No results were significant for principals. Significant negative correlations were found between teacher insensitivity toward learners and location for teachers (r=-

.166, $p<.05$). Results for this correlation can be found in Table 64.

Table 64 *Pearson Correlations of IPI Sub-areas and Location for Teachers*

Variable	Correlation	2 Tailed
Teacher empathy with learners	.069	.379
Teacher trust of learners	.058	.456
Accommodating learner uniqueness	.108	.168
Teacher insensitivity toward learners	-.166*	.032

* Significant at the 0.05 level (2-tailed).

A Spearman's Rho correlation was used to examine the relationship between the IPI sub-areas teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learning and location. Significant negative correlations were found between teacher insensitivity toward learners and location for teachers ($r=-.162$, $p<.05$). Results for these Spearman correlations for teachers can be found in Table 65.

Table 65 *Spearman Correlations of IPI Sub-areas and Location for Teachers*

Variable	Correlation	2 Tailed
Teacher empathy with learners	.065	.407
Teacher trust of learners	.036	.648
Accommodating learner uniqueness	.082	.292
Teacher insensitivity toward learners	-.162*	.036

* Significant at the 0.05 level (2-tailed).

Comparisons between Pearson and Spearman correlations reveal similar correlations for teachers. These correlations suggest location is negatively associated with teacher insensitivity toward learners. In summary, there is a negative association

between location and teacher insensitivity toward learners for teachers.

A Pearson product moment correlation coefficient was used to examine the relationship between the IPI sub-area means and the RPS mean for teachers and principals. Significant positive correlations were found for teachers between the RPS and: teacher empathy with learners (r=.226, p<.01); teacher trust of learners (r=.328, p<.01); planning and delivery of instruction (r=.267, p<.01); accommodating learner uniqueness (r=.310, p<.01); and experience-based learning techniques (r=.192, p<.05). No significant positive correlations were found for principals between the RPS and sub-areas of the IPI. These results can be seen in Table 66.

Table 66 *Pearson Correlation for IPI Sub-area Means and RPS Mean for Teachers*

Variable	Correlation	2 Tailed
Teacher empathy with learners	.226**	.004
Teacher trust of learners	.328**	.000
Planning and delivery of instruction	.267**	.001
Accommodating learner uniqueness	.310**	.000
Teacher insensitivity toward learners	-.117	.132
Experience-based learning techniques (learner-centered learning processes)	.192**	.013
Teacher-centered learning processes	.145	.063

** Correlation is significant at the 0.01 level (2-tailed); N=164

A Spearman correlation coefficient was used to examine the relationship between the IPI sub-area means and the RPS mean for teachers and principals. Significant positive correlations were found for teachers between the RPS and: teacher empathy with learners (r=.241, p<.01); teacher trust of learners (r=.372, p<.01); planning and delivery of instruction (r=.269, p<.01); accommodating learner uniqueness (r=.317, p<.01); and experience-based learning techniques (r=.199, p<.05). No significant positive correlations were found for principals between the RPS and sub-areas of the IPI. These

results can be seen in Table 67.

Table 67 *Spearman Correlation for IPI Sub-area Means and RPS Mean for Teachers*

Variable	Correlation	2 Tailed
Teacher empathy with learners	.241**	.002
Teacher trust of learners	.372**	.000
Planning and delivery of instruction	.269**	.000
Accommodating learner uniqueness	.317**	.000
Teacher insensitivity toward learners	-.103	.185
Experience-based learning techniques (learner-centered learning processes)	.199*	.010
Teacher-centered learning processes	.134	.086

** Correlation is significant at the 0.01 level (2-tailed); N=164

Comparisons between Pearson and Spearman correlations reveal an overlap of five identical correlations for teachers. Of the five identical correlations for teachers, all Spearman correlations were higher than the Pearson. In summary, these correlations suggest that for teachers, the RPS is associated with teacher empathy with learners, teacher trust of learners, planning and delivery of instruction, accommodating learner uniqueness, and experience-based learning techniques.

Pearson and Spearman correlations between sub-areas of the IPI and the RPS were calculated for all groups combined and then for teachers and principals. Significant correlations were found for the combined groups of teachers and principals between the teacher empathy with learners and: teacher trust of learners (r=.854, p<.01); planning and delivery of instruction (r=.602, p<.01); accommodating learner uniqueness (r=.757, p<.01); teacher insensitivity toward learners (r=-.253, p<.01); experience-based learning techniques (r=.532, p<.01); teacher-centered learning processes (r=.458, p<.01); grand total IPI (r=.838, p<.01); and the RPS (r=.222, p<.01). In summary, teacher empathy with learners was significantly associated with all other IPI sub-areas and the RPS for teachers and principals combined. It is important to note that when the groups were

separated, teachers showed significant correlations between the same sub-areas. Principals on the other hand showed significant correlations only between teacher empathy with learners and: teacher trust of learners, and Grand Total IPI.

Significant correlations were found for the combined groups of teachers and principals between the teacher trust of learners and: planning and delivery of instruction (r=.608, p<.01); accommodating learner uniqueness (r=.827, p<.01); teacher insensitivity toward learners (r=-.312, p<.01); experience-based learning techniques (r=.549, p<.01); teacher-centered learning processes (r=.392, p<.01); grand total IPI (r=.844, p<.01); and the RPS (r=.318, p<.01). In summary, teacher trust of learners was significantly associated with all other IPI sub-areas and the RPS for teachers and principals combined. It is important to note that when the groups were separated, teachers showed significant correlations between the same sub-areas. Principals on the other hand showed significant correlations only between teacher trust of learners and: accommodating learner uniqueness, and Grand Total IPI.

Significant correlations were found for the combined groups of teachers and principals between planning and delivery of instruction and: accommodating learner uniqueness (r=.630, p<.01); experience-based learning techniques (r=.792, p<.01); teacher-centered learning processes (r=.581, p<.01); grand total IPI (r=.792, p<.01); and the RPS (r=.263, p<.01). It is important to note that when the groups were separated, teachers showed significant correlations between planning and delivery of instruction and all sub-areas. Principals on the other hand showed significant correlations only between planning and delivery of instruction and: accommodating learner uniqueness, experience-based learning techniques, teacher-centered learning processes, and Grand Total IPI.

Significant correlations were found for the combined groups of teachers and principals between accommodating learner uniqueness and: teacher insensitivity toward learners (r=-.205, p<.01); experience-based learning techniques (r=.543, p<.01); teacher-centered learning processes (r=.369, p<.01); grand total IPI (r=.830, p<.01); and the RPS (r=.299, p<.01). It is important to note that when the groups were separated, teachers showed significant correlations between accommodating learner uniqueness and all sub-areas. Principals on the other hand showed significant correlations only between accommodating learner uniqueness and: teacher-centered learning processes, and Grand Total IPI.

No significant correlations were found for the combined groups of teachers and principals between teacher insensitivity toward learners and other IPI sub-areas. It is important to note that when the groups were separated, teachers and principals showed significant correlations between teacher insensitivity toward learners and Grand Total IPI.

Significant correlations were found for the combined groups of teachers and principals between experience-based learning techniques and: teacher-centered learning processes (r=.573, p<.01); grand total IPI (r=.762, p<.01); and the RPS (r=.188, p<.01). It is important to note that when the groups were separated, teachers showed significant correlations between the same sub-areas. Principals, on the other hand, showed significant correlations only between experience-based learning techniques and Grand Total IPI.

Significant correlations were found for the combined groups of teachers and principals between teacher-centered learning processes and Grand Total IPI (r=.637,

$p<.01$). It is important to note that when the groups were separated, both teachers and principals showed significant correlations between the same sub-areas.

Significant correlations were found for the combined groups of teachers and principals between Grand Total IPI and RPS ($r=.304$, $p<.01$). It is important to note that when the groups were separated, teachers showed a significant correlation between the same areas.

In summary, all IPI sub-areas are associated with each other except: teacher-centered learning processes and the RPS; and, teacher insensitivity toward learners and planning and delivery of instruction, experience-based learning techniques, teacher-centered learning processes, Grand Total IPI, and RPS. The total group had 30 correlations. When the groups were separated, teachers had 32 correlations as compared to 13 correlations for principals. Separated correlations for teachers were more significant than principals. Of the 30 correlations for the group (combined principals and teachers), only 13 correlations were common for the principals and teachers when separated and seven of the 13 common correlations were for the Grand Total IPI.

Pearson correlations of IPI and RPS sub-areas for all groups can be found in Table 68 and Spearman correlations of IPI and RPS sub-areas for all groups can be found in Table 69. Pearson correlations of IPI and RPS sub-areas for teacher and principals can be found in Table 70 and Spearman correlations of IPI and RPS sub-areas for teachers and principal can be found in Table 71.

Table 68 *Pearson Correlations of IPI Sub-areas and RPS for All Groups*

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Teacher empathy with learners	-	.854**	.602**	.757**	-.253**	.532**	.458**	.838**	.222**
2. Teacher trust of learners		-	.608**	.827**	-.312**	.549**	.392**	.844**	.318**
3. Planning and delivery of instruction			-	.630**	-.083	.792**	.581**	.792**	.263**
4. Accommodating learner uniqueness				-	-.205**	.543**	.369**	.830**	.299**
5. Teacher insensitivity toward learners					-	-.084	.016	-.018	-.048
6. Experience-based learning techniques						-	.573**	.762**	.188**
7. Teacher-centered learning processes							-	.637**	.117
8. Grand Total IPI								-	.304**
9. RPS									-

** Correlation is significant at the 0.01 level (2-tailed); N=198 for IPI, N=196 for RPS.

Table 69 *Spearman Correlations of IPI Sub-areas and RPS for All Groups*

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Teacher empathy with learner	-	.812**	.584**	.726**	-.249**	.536**	.405**	.826**	.231**
2. Teacher trust of learners		-	.587**	.795**	-.294**	.561**	.386**	.838**	.361**
3. Planning and delivery of instruction			-	.595**	-.108	.752**	.572**	.767**	.268**
4. Accommodating learner uniqueness				-	-.197**	.527**	.366**	.815**	.303**
5. Teacher insensitivity toward learners					-	-.096	-.001	-.014	-.052
6. Experience-based learning techniques						-	.563**	.765**	.197**
7. Teacher-centered learning processes							-	.609**	.117
8. Grand Total IPI								-	.314**
9. RPS									-

** Correlation is significant at the 0.01 level (2-tailed); N=198 for IPI, N=196 for RPS.

Table 70 *Pearson Correlations of IPI Sub-areas and RPS for Principals and Teachers*

Variable		1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Teacher empathy with learners	Prin	-	.478*	.351	.343	-.165	.327	.119	.497**	.080
	Tchr	-	.856**	.622**	.757**	-.460**	.536**	.487**	.832**	.226**
2. Teacher trust of learners	Prin		-	.280	.504**	-.262	.186	.157	.475*	.135
	Tchr		-	.625**	.830**	-.480**	.552**	.405**	.846**	.328**
3. Planning and delivery of instruction	Prin			-	.611**	.278	.504**	.382*	.838**	.182
	Tchr			-	.631**	-.168*	.809**	.595**	.814**	.267**
4. Accommodating learner uniqueness	Prin				-	.257	.252	.428*	.823**	.097
	Tchr				-	-.392**	.550**	.369**	.819**	.310**
5. Teacher insensitivity toward learners	Prin					-	-.069	.061	.422**	.323
	Tchr					-	-.146	-.005	-.212**	-.117
6. Experience-based learning techniques	Prin						-	.256	.533**	-.241
	Tchr						-	.590**	.783**	.192*
7. Teacher-centered learning processes	Prin							-	.534**	-.241
	Tchr							-	.670**	.145
8. Grand Total IPI	Prin								-	.206
	Tchr								-	.311**
9. RPS	Prin									-
	Tchr									-

** Correlation is significant at the 0.01 level (2-tailed); N=198 for IPI, N=196 for RPS.

Table 71 *Spearman Correlations of IPI Sub-areas and RPS for Principals and Teachers*

Variable		1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Teacher empathy with learners	Prin	-	.501**	.356	.384*	.174	.250	.278	.531**	.091
	Tchr	-	.831**	.623**	.726**	-.488**	.554**	.453**	.828**	.241**
2. Teacher trust of learners	Prin		-	.314	.440*	-.210	.175	.109	.442*	.134
	Tchr		-	.616**	.808**	-.457**	.574**	.412**	.848**	.372**
3. Planning and delivery of instruction	Prin			-	.685**	.210	.466*	.437*	.821**	.250
	Tchr			-	.600**	-.177*	.782**	.589**	.805**	.269**
4. Accommodating learner uniqueness	Prin				-	.246	.397*	.577**	.892**	.287
	Tchr				-	-.383**	.541**	.367**	.799**	.317**
5. Teacher insensitivity toward learners	Prin					-	-.091	.123	.428*	.316
	Tchr					-	-.165*	-.025	-.232**	-.103
6. Experience-based learning techniques	Prin						-	.233	.550**	.146
	Tchr						-	.593**	.802**	.199*
7. Teacher-centered learning processes	Prin							-	.562**	.034
	Tchr							-	.660**	.134
8. Grand Total IPI	Prin								-	.315
	Tchr								-	.326**
9. RPS	Prin									-
	Tchr									-

** Correlation is significant at the 0.01 level (2-tailed); N=198 for IPI, N=196 for RPS.

In the next section dependent and independent variables are compared and discussed for any significance.

Instructional Perspectives Inventory (IPI).

On the IPI, the total score mean for principals was in the upper half of the average category level and the total score mean for teachers was in the lower half of the average category level according to a proportioned scale as identified by Stanton (2005). Sub-area means were higher for principals than teachers and were noticeably higher for principals in teacher empathy of learners, teacher trust of learners, accommodating learner uniqueness, teacher insensitivity toward learners, and the grand total of the IPI. Teachers had a much wider range of scores on the IPI than principals in all seven sub-areas and the grand total of the IPI.

Data for sub-areas of the IPI in comparison to the demographic data of principals and teachers reveal some differences between principals and teachers. Teachers' scores had a greater range from minimum to maximum in all sub-areas. Except as noted, the teacher scores were lower for all sub-areas and lower than the factor analysis by Henschke (1994) as identified in Table 1 (Chapter Three, p. 50) and Table 2 (Chapter Three, p. 51).

Teacher empathy with learners and (a) age-teachers were lower specifically in the 40-49 year range; (b) gender; (c) building level-teachers were lower specifically at grade 7, 8; (d) years of experience-teachers were lower except for 16-20 year range; (e) highest degree-there was a progressive increase in the principals' scores as higher degrees were earned.

Teacher trust of learners and (a) age-teachers were lower specifically in the 40-49

year range; (b) gender; (c) building level-teachers were lower specifically at grade 7, 8; (d) years of experience-teachers were lower and there was more of a gap in the 11-15 year range; (e) highest degree-teachers' scores were relatively close to principals' scores except for the master's degree.

Planning and delivery of instruction and (a) age-teachers were lower except in the 50-59 year range and principals' scores in the 30-39 year range were the lowest of all ages of the principals; (b) gender-teachers' scores were relatively close to principals' scores and both were below Henschke (1994) factor analysis; (c) building level-teachers were lower except at the grade K-6 level where teachers and principals were at similar levels and both groups were below Henschke's factor analysis; (d) years of experience-teachers were lower except for 16-20 years range where teachers and principals were at similar levels and both groups were below Henschke's factor analysis; (e) highest degree-teachers were lower except at the bachelor's level where they were higher than principals and both groups were below Henschke's factor analysis.

Accommodating learner uniqueness and (a) age-principals at 20-29 and 40-49 levels were substantially higher than the teachers and Henschke's factor analysis; (b) gender-male teachers were lower than female teachers, female principals were higher than male principals, and all principals were higher than Henschke's factor analysis; (c) building level-teachers were lower specifically at the grade 7, 8 level and higher at the PK level, principals were higher than Henschke's factor analysis; (d) years of experience-teachers were lower where the highest scores were found at the 0-5 years level and above Henschke's factor analysis, principals were above Henschke's factor analysis level specifically at the 16-20 years level; (e) highest degree-teachers were lower where the

highest scores were found at the specialist level and above Henschke's factor analysis, principals were above Henschke's factor analysis.

Teacher insensitivity toward learners (this item on the IPI is worded in a negative or reversed manner and high scores indicate a lack of emphasis in adult education or learning concepts) and (a) age-principals at only the 40-49 age level were higher than Henschke's factor analysis, principals in the 30-39 and 40-49 age level in comparison to the teachers were significantly higher; (b) gender-teachers were lower significantly in comparison to principals, female principals were slightly below Henschke's factor analysis; (c) building level-teachers were lower specifically at the K-6 level, principals scored the lowest at the 7, 8 level and highest at the 9-12 level; (d) years of experience-principals scored the lowest at the 6-10 years range and highest at the 11-15 years range; (e) highest degree-teachers were more than one point lower than principals at the Bachelor's and Specialist levels.

Experience-based learning techniques (learner-centered learning processes) and age, gender, building level, years of experience, and highest degree-teachers were lower and were relatively close to principals' scores for all demographic areas. Teacher-centered learning processes and age, gender, building level, years of experience, and highest degree-teachers were lower and were relatively close to principals' scores for all demographic areas. Grand Total IPI score and age, gender, building level, years of experience, and highest degree-teachers were lower and were relatively close to principals' scores for all demographic areas.

Respect for Partner Scale (RPS).

Data for the RPS mean in comparison to the demographic data of principals and teachers reveal slight differences between principals and teachers. Teachers' scores had a greater range from minimum to maximum and teacher scores were generally lower or at the same level for all demographic areas including: age, gender, building level, years of experience, and highest degree. Mean scores for principals and teachers were lower than the RPS means obtained by Frei (2004) in study one and two of her research. The RPS correlated with only one independent variable, adult learning-observation. The correlation .151 was significant at the .05 level.

Independent Variables.

There are five demographic independent variables, one independent variable statement on adult learning, one open-ended question on adult learning principles, and one separate independent variable of location that are discussed. The five demographic variables include: age, gender, building level as teacher or principal, number of years as teacher or principal, and highest degree earned. The adult learning variable was a question stating, "My formal and/or informal exposure to adult learning concepts was received from" (12 selections-circle all that apply). The open-ended question stated, "What are adult learning principles as far as you are concerned?" Additional information for the following section will be taken from the descriptive statistics portion of this chapter.

The first independent variable was age. Scores by teachers on the IPI were generally lower than principals for the category of age specifically in the 40-49 year old range. One-half of the principals were in the 30-39 year old range. An ANOVA on age

was completed with the dependent variable experience-based learning techniques which had been identified as having a significant correlation (Table 21, p. 81). Levene's Test of Homogeneity of Variances suggested that equality of group variances could be assumed for experience-based learning techniques ($p > .05$). The results of the ANOVA can be found in Table 72.

Table 72 *ANOVA of Experience-based Learning Techniques and Age*

Source	*df*	*F*	?	*p*
Experience-based learning techniques				
Between Groups	4	1.208	.524	.309
Within Groups	187		.434	
Total	191			

Experience-based learning techniques scores were calculated for age 20-29 (Mean=2.533, SD=.6505), age 30-39 (Mean=2.556, SD=.6560), age 40-49 (Mean=2.711, SD=.61266), age 50-59 (Mean=2.775, SD=.7249, and age 60+ had no data due to N=1. An analysis of variance indicated no significant difference between the groups on the measure of experience-based learning techniques, $F(4,187)=1.208$, $p>.05$.

Scores for experienced-based learning techniques of the IPI were calculated, with mean ranks for age 20-29 (Mean Rank=84.44), age 30-39 (Mean Rank=89.47), age 40-49 (Mean Rank=101.72), age 50-59 (Mean Rank=108.14), and age 60+ (Mean Rank=152.00). A Kruskal-Wallis H test indicated no significant difference between the groups on the measure of experience-based learning techniques, $?^2 (4) = 5.580$, $p>.05$.

The second independent variable was gender. Scores by teachers for this independent variable were generally lower than principals. Independent samples *t*-tests were completed with the dependent variable teacher insensitivity toward learners which

had been identified as having a significant correlation (Table 21, p. 81). Independent samples *t*-test were used to examine differences between gender and teacher insensitivity toward learners for their mean scores on the IPI. Levene's Test of Equality of Error Variances suggested that equal variances could be assumed for teacher insensitivity toward learners ($F=0.064$, $p > .05$), therefore *t* is given for equal variances assumed. Significant differences ($t[193]=2.871$, $p<.01$) occurred between males (Mean=2.0179, SD=.643) and females (Mean=1.721, SD=.615) for scores on the sub-area teacher insensitivity toward learners of the IPI.

Mann Whitney U tests were carried out to provide comparisons of the Mean Ranks. This test shows that a significant difference occurs for teacher insensitivity toward learners between males and females ($U=2572.500$, $p<.01$). These findings suggest females describe their attitudes of principals as having less teacher insensitivity toward learners (more sensitive) than males believe the attitudes of principals are.

The third independent variable was building level as teacher or principal. Teachers at the 7, 8 building level scored lower than any other building level. An ANOVA was completed for the dependent variable experience-based learning techniques and the independent variable building level as teacher or principal which had been identified as having a significant correlation (Table 21, p. 81). Levene's Test of Homogeneity of Variances suggested that equality of group variances could be assumed for experience-based learning techniques ($p > .05$).

Teacher empathy with learners scores were calculated for grade PK (Mean=1.800, SD=.7733), grade K-6 (Mean=1.677, SD=.5935), grade 7, 8 (Mean=1.943, SD=.6171), and grade 9-12 (Mean=2.010, SD=.6884). An analysis of variance indicated a significant

difference between the groups on the measure of experience-based learning techniques, F(3,189)=4.768, *p*<01. A Tukey HSD post hoc test revealed grade K-6 scored significantly lower than grade 9-12 (p<.05) on the measure of teacher insensitivity toward learners. The results of this ANOVA with the dependent variables can be found in Table 73.

Table 73 *ANOVA of Experience-based Learning Techniques and Building Level as Teacher or Principal*

Source	*df*	*F*	*?*	*p*
Experience-based learning techniques				
Between Groups	3	4.768	1.823	.003**
Within Groups	189		.382	
Total	192			

** Significant at the 0.01 level.

Independent samples *t*-test were used to examine differences between building level grade K-6 and 9-12 and teacher insensitivity toward learners for their mean scores on the IPI. Levene's Test of Equality of Error Variances suggested that equal variances could be assumed for teacher empathy with learners (F=1.201, *p*> .05) therefore *t* was valid for equal variances assumed. Significant differences (*t*[156] = -3.468, *p* <.01) occurred between grade K-6 (Mean=11.784, SD=4.146) and grade 9-12 (Mean=14.697, SD=4.818) for scores on the sub-area teacher insensitivity toward learners of the IPI.

Scores for teacher insensitivity toward learners of the IPI were calculated with mean ranks for grade level K-6 (Mean Rank=86.98) being much lower than grade level 9-12 (Mean Rank=122.03). A Kruskal-Wallis H test indicated a significant difference between the groups on the measure of teacher insensitivity toward learners, $?^2$ (3) =12.687, *p*<.01. A series of Mann Whitney U tests were carried out to provide post-hoc

comparisons of the Mean Ranks. This test shows that a significant difference occurs for teacher insensitivity toward learners between grades K-6 and 9-12 (U=1320.000, p<.01). These findings suggest that teachers in grades K-6 describe their principals as having less teacher insensitivity toward learners (more sensitive) than teachers in grades 9-12 believe their principals and assistant principals are toward them.

Comparisons of parametric and nonparametric scores reveal levels of significance for both methods for grades K-6 and 9-12 with the dependent variable teacher insensitivity toward learners.

The fourth independent variable was number of years as teacher or principal. One-half of the principals had 0-5 years of experience. Significant correlations of the IPI total mean and the RPS occurred in the category number of years as teacher or principal for teachers in the 6-10 and 11-15 years level.

The fifth independent variable was highest degree earned. An ANOVA was completed for the dependent variables teacher empathy with learners and teacher insensitivity toward learners and the independent variable highest degree which had been identified as having a significant correlation (Table 21, p. 81). Levene's Test of Homogeneity of Variances suggested that equality of group variances could not be assumed for teacher empathy with learners ($p < .05$) and teacher insensitivity toward learners ($p < .05$).

Teacher empathy with learners scores were calculated for bachelor's degree (Mean=3.115, SD=.6577), master's degree (Mean=3.243, SD=.6490), specialist degree (Mean=l.775, SD=.2620), and doctorate degree (Mean=4.000, SD=.0000). An analysis of variance indicated a significant difference between the groups on the measure of

teacher empathy with learners, F(3,184)=4.516, p<.01. No post hoc test was performed as one group had fewer than two cases. Table 74 presents an ANOVA completed for the dependent variables teacher empathy with learners and the grand total of the IPI and the

Table 74 *ANOVA of Teacher Empathy with Learners/Teacher Insensitivity toward Learners and Highest Degree*

Source	*df*	*F*	*?*	*p*
Teacher empathy with learners				
Between Groups	3	4.516	1.780	.004**
Within Groups	184		.394	
Total	187			
Teacher insensitivity toward learners				
Between Groups	3	1.579	.640	.196
Within Groups	186		.405	
Total	189			

** Significant at the 0.01 level; * Significant at the 0.05 level.

independent variable highest degree.

Scores for teacher empathy with learners of the IPI were calculated with mean ranks for highest degree with bachelor's degree (Mean Rank=80.10) being much lower than doctorate degree (Mean Rank=174.00). A Kruskal-Wallis H test indicated a significant difference between the groups on the measure of teacher empathy with learners, $?^2$ (3) =16.550, p<.01. A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for teacher empathy with learners between bachelor's degree and specialist degree (U=74.000, p<.01) and master's degree and specialist degree (U=540.000, p<.01). These findings suggest that staff (teachers and principals) with bachelor's degrees describe their principals or themselves as having less teacher empathy with learners than staff with specialist degrees believe their principals or they have

toward them. These findings also suggest that staff (teachers and principals) with master's degrees describe their principals or themselves as having less teacher empathy with learners than staff with specialist degrees believe their principals or they have toward them.

Teacher insensitivity toward learners scores were calculated for bachelor's degree (Mean=1.632, SD=.4852), master's degree (Mean=1.806, SD=.6540), specialist degree (Mean=l.946, SD=.6859), and doctorate degree (Mean=2.714, SD=.0000). An analysis of variance indicated a significant difference between the groups on the measure of teacher empathy with learners, F(3,186)=1.579, *p*>.01. No post hoc test was performed as one group had fewer than two cases.

Scores for teacher insensitivity toward learners of the IPI were calculated with mean ranks for highest degree with bachelor's degree (Mean Rank=83.65) being much lower than doctorate degree (Mean Rank=170.00). A Kruskal-Wallis H test indicated no significant difference between the groups on the measure of teacher insensitivity toward learners, $?^2$ (3) =3.882, *p*>.01.

Comparisons of parametric and nonparametric scores reveal levels of significance for both methods for highest degree with the dependent variable teacher empathy with learners. Post hoc tests reveal staff with bachelor's degrees scored lower than staff with specialist degrees on the variable teacher empathy with learners and staff with master's degrees scored lower that staff with specialist degrees. This could be attributed to the fact the groups were mixed and most principals have specialist degrees.

The adult learning variable was a statement, "My formal and/or informal exposure to adult learning concepts was received from," followed by 12 selections which the

participant could circle those that applied. All the principals and 84.9 percent of teachers indicated some kind of exposure to adult learning concepts. The responses to the adult learning variable listed below are lettered a through l to correspond with the responses numbered in the demographic information in Appendix J.

a. No exposure- Independent samples *t*-test were used to examine differences between adult learning-no exposure and teacher empathy with learners and experience-based learning techniques which had been identified as having a significant correlation (Table 21, p. 81). Independent samples t-test were used to examine differences between adult learning-no exposure and teacher empathy with learners and experience-based learning techniques for their mean scores on the IPI. Levene's Test of Equality of Error Variances suggested that equal variances could be assumed for teacher empathy with learners ($F=0.345$, $p>.05$), and experience-based learning techniques ($F=2.343$, $p>.05$), therefore *t* is given for equal variances assumed. Significant differences ($t[192.000]=-2.031$, $p<.05$) occurred for yes-no exposure (Mean=3.016, SD=.638) and for no-no exposure (Mean=3.300, SD=.656) for scores on the sub-area teacher empathy with learners of the IPI. Significant differences ($t[194.000]=-2.053$, $p<.05$) occurred yes-no exposure (Mean=2.392, SD=.769) and no-no exposure (Mean=2.678, SD=.632) for scores on the sub-area experience-based learning techniques of the IPI.

Scores for teacher empathy with learners of the IPI were calculated, with mean ranks for yes-no exposure (Mean Rank=72.38) being much lower than no-no exposure (Mean Rank=101.22). A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for teacher empathy with learners between yes-no exposure and no-no exposure

(U=1484.500, p<.05). These findings suggest that staff describe themselves as having exposure to adult learning concepts have more teacher empathy with learners than those who have not had exposure to adult learning principles.

Scores for experience-based learning techniques of the IPI were calculated, with mean ranks for yes-no exposure (Mean Rank=81.12) being much lower than no-no exposure (Mean Rank=101.04). A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that no significant difference occurs for experience-based learning techniques between yes-no exposure and no-no exposure (U=1703.000, p>.05).

Comparisons of parametric and nonparametric scores reveal levels of significance for both methods for exposure to adult learning concepts with the dependent variable teacher empathy with learners.

b. Reading in a book or journal article-20 (66%) of the principals received exposure to adult learning concepts from reading in a book or journal article.

c. Bachelor's level college/university course-The frequency of a positive response were very similar for principals (40%) and teachers (43.2%) in their response as receiving exposure to adult learning concepts from a bachelor's level college/university course.

d. Master's level college/university course-56.7 percent of principals and 62.7 percent of teachers received exposure to adult learning concepts in a master's level college/university course. This area was where teachers indicated they received the greatest exposure to adult learning concepts. This was one of the common elements between teachers and principals for exposure to adult learning concepts.

e. Doctorate level college/university course-This area was the lowest for both

principals and teachers. Negative correlations in Table 21 (page 83) between the dependent variables teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, teacher insensitivity toward learners, and the grand total of the IPI and the independent variables formal/informal exposure to adult learning in a doctorate level class were indicative of the overwhelming negative response of having exposure of adult learning through a doctorate level class. Of the 198 total respondents, 191 were no.

Independent samples *t*-test were used to examine differences between adult learning-doctorate level course and teacher empathy with learners, teacher trust of learners, planning and delivery of instruction, and accommodating learner uniqueness which had been identified as having a significant correlation (Table 21, p. 81). Independent samples *t*-test were used to examine differences between adult learning-doctorate level course and teacher empathy with learners, teacher trust of learners, planning and delivery of instruction, and accommodating learner uniqueness for their mean scores on the IPI. Levene's Test of Equality of Error Variances suggested that equal variances could not be assumed for teacher empathy with learners ($F=7.537$, $p<.01$), and teacher trust of learners ($F=4.739$, $p<.05$) therefore *t* is corrected for unequal variances for these variables. Levene's Test of Equality of Error Variances suggested that equal variances could be assumed for planning and delivery of instruction ($F=2.610$, $p>.05$), and accommodating learner uniqueness ($F=3.131$, $p>.05$) therefore *t* is given for equal variances assumed for these variables.

Significant differences ($t[16.216]=8.817$, $p<.01$) occurred for doctorate level course-yes (Mean=3.914, SD=.157) and for doctorate level course-no (Mean=3.240,

SD=.658) for scores on the sub-area teacher empathy with learners of the IPI. Significant differences (*t*[10.747]=5.225, p<.01) occurred for doctorate level course-yes (Mean=3.766, SD=.195) and doctorate level course-no (Mean=3.319, SD=.589) for scores on the sub-area teacher trust of learners of the IPI. Significant differences (*t*[192.000]=2.207, p<.05) occurred for doctorate level course-yes (Mean=3.657, SD=.341) and for doctorate level course-no (Mean=3.106, SD=.656) for scores on the sub-area planning and delivery of instruction of the IPI. Significant differences (*t*[192.000]=2.416, p<.05) occurred for doctorate level course-yes (Mean=3.653, SD=.245) and doctorate level course-no (Mean=3.156, SD=.541) for scores on the sub-area accommodating learner uniqueness of the IPI.

Scores for teacher empathy with learners of the IPI were calculated, with mean ranks for doctorate level course-yes (Mean Rank=166.00) being much higher than doctorate level course-no (Mean Rank=94.94). A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for teacher empathy with learners between doctorate level course-yes and doctorate level course-no (U=175.000, p<.01). These findings suggest that staff having doctorate level courses with adult learning principles describe themselves as having more teacher empathy with learners than those who have not had doctorate level course with adult learning principles.

Scores for teacher trust of learners of the IPI were calculated, with mean ranks for doctorate level course-yes (Mean Rank=146.57) being much higher than doctorate level course-no (Mean Rank=95.66). A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant

difference occurs for teacher trust of learners between doctorate level course-yes and doctorate level course-no ($U=311.000$, $p<.05$). These findings suggest that staff having doctorate level courses with adult learning principles describe themselves as having more teacher trust of learners than those who have not had doctorate level courses with adult learning principles.

Scores for planning and delivery of instruction of the IPI were calculated, with mean ranks for doctorate level course-yes (Mean Rank=146.14) being much higher than doctorate level course-no (Mean Rank=95.68). A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for planning and delivery of instruction between doctorate level course-yes and doctorate level course-no ($U=314.000$, $p<.05$). These findings suggest that staff having doctorate level courses with adult learning principles describe themselves as having more quality planning and delivery of instruction than those who have not had doctorate level course with adult learning principles.

Scores for accommodating learner uniqueness of the IPI were calculated, with mean ranks for doctorate level course-yes (Mean Rank=153.71) being much higher than doctorate level course-no (Mean Rank=95.40). A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for accommodating learner uniqueness between doctorate level course-yes and doctorate level course-no ($U=261.000$, $p<.01$). These findings suggest that staff having doctorate level courses with adult learning principles describe themselves as accommodating learner uniqueness more than those who have not had doctorate level course with adult learning principles.

Comparisons of parametric and nonparametric scores reveal levels of significance for both methods for exposure to adult learning concepts-doctorate level course with the dependent variables teacher empathy with learners, teacher trust of learners, planning and delivery of instruction, and accommodating learner uniqueness. Post hoc tests reveal staff with exposure to adult learning concepts in doctorate level courses scored higher than staff that did not have exposure to adult learning concepts in doctorate level courses.

f. Workshop on adult learning - Principals and teachers were very similar in their response as receiving exposure to adult learning concepts from a workshop on adult learning. Negative correlations in Table 21 (page 83) between the dependent variables planning and delivery of instruction, experience-based learning techniques, and the grand total of the IPI and the independent variables formal/informal exposure to adult learning in a workshop were indicative of the overwhelming negative response of having exposure of adult learning through a workshop. Of the 198 total respondents, 155 were no.

Independent samples *t*-test were used to examine differences between adult learning-workshop on adult learning and planning and delivery of instruction, and experience-based learning techniques for their mean scores on the IPI. Levene's Test of Equality of Error Variances suggested that equal variances could not be assumed for experience-based learning techniques ($F=4.880$, $p<.05$) therefore t is corrected for unequal variances for this variable. Levene's Test of Equality of Error Variances suggested that equal variances could be assumed for planning and delivery of instruction ($F=2.844$, $p>.05$) therefore *t* is given for equal variances assumed for this variable.

Significant differences ($t[192.000]=2.402$, $p<.05$) occurred for workshop on adult learning-yes (Mean=3.338, SD=.544) and workshop on adult learning-no (Mean=3.067,

SD=.673) for scores on the sub-area planning and delivery of instruction of the IPI. Significant differences (t[85.813]=3.130, p<.01) occurred for workshop on adult learning-yes (Mean=2.876, SD=.505) and workshop on adult learning-no (Mean=2.578, SD=.679) for scores on the sub-area experience-based learning techniques of the IPI.

Scores for planning and delivery of instruction of the IPI were calculated, with mean ranks for workshop on adult learning-yes (Mean Rank=114.43) being higher than workshop on adult learning-no (Mean Rank=92.82). A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for planning and delivery of instruction between workshop on adult learning-yes and workshop on adult learning-no (U=2481.000, p<.05). These findings suggest that staff who describe themselves as having a workshop on adult learning exhibit better planning and delivery of instruction than those who have not had a workshop on adult learning.

Scores for experience-based learning techniques of the IPI were calculated, with mean ranks for workshop on adult learning-yes (Mean Rank=117.18) being higher than workshop on adult learning-no (Mean Rank=93.41). A series of Mann Whitney U tests were carried out to provide post-hoc comparisons of the Mean Ranks. This test shows that a significant difference occurs for experience-based learning techniques between workshop on adult learning-yes and workshop on adult learning-no (U=2449.500, p<.05). These findings suggest that staff who describe themselves as having a workshop on adult learning exhibit better experience-based learning techniques more than those who have not had a workshop on adult learning.

Comparisons of parametric and nonparametric scores reveal levels of significance

for both methods for exposure to adult learning concepts-workshop on adult learning with the dependent variables planning and delivery of instruction, and experience-based learning techniques. Post hoc tests reveal staff with exposure to adult learning concepts in workshops scored higher than staff that did not have exposure to adult learning concepts in workshops.

g. Conference on adult learning-This area had the second lowest percentage of the 12 areas for both principals (16.7%) and teachers (13.6%).

h. Mentor-Principals rated this level (40%) equal with the bachelor's level college/university course as a source of adult learning concepts. Teachers rated this level at 25.4%.

i. Observation-Nearly two-thirds of principals and 55.6 percent of teachers received exposure to adult learning concepts through observation. This was one of the common elements between teachers and principals for exposure to adult learning concepts.

j. Professional Dialogue-70 percent of principals indicated they received exposure to adult learning concepts through this area. Professional dialogue was where principals indicated they received the greatest exposure to adult learning concepts.

k. Reflection-53.3 percent of principals indicated they received exposure to adult learning concepts through this area.

l. Gut feelings about what I ought to do as a teacher/principal- This was one of the common elements between teachers and principals for exposure to adult learning concepts. 60 percent of principals and 50.9 percent of teachers indicated they received exposure to adult learning concepts through this area.

The open-ended question stated, "What are adult learning principles as far as you are concerned?" Seventy percent (or 21) of the principals responded and 56% (or 93) of the teachers responded to the question. Individual responses are found in Appendix L on page 265ff.

Responses from principals indicated a general understanding and overview of adult learning principles. Some responses sounded like a list of things that could be done to staff rather than done with staff. This would be similar to the approaches taken by the instructional leader versus the learning leader. Many of the comments focused on life experiences and climate. Some of the comments indicating an understanding included: respect for life's experiences; climate that is conducive toward acceptance, fairness, receptive, expressive and open to differences in individuals and learning levels; having and giving self-respect; promoting self-worth in a supportive environment; why information needs to be learned and how it is going to be used; feedback; tie what is being taught with life experiences; and, climate conducive for success.

Responses from teachers categorized themselves into groups such as teaching styles, learning styles, professional development, linkage to students in the classroom, staying current in the subject taught, various methods of learning (one on one, workshop), personal characteristics of being a better person or helping others, respect, learning environment, and lifelong learning. Twelve responded they did not know what adult learning principles were. Some of the comments indicating and understanding included: learning and applying knowledge that is useful and practical; foster mutual respect; fostering a learning process in which people are continuously learning; safe and secure learning environment; motivation; characteristics adults bring to the learning setting;

sharing of experiences; tailoring a learning program that meets the individual adult's needs; continuing to learn.

Location is the specific building location for participants in the study in the school district. This information was coded on each survey to track the completion of questionnaires so follow-up questionnaires could be provided to participants who had not completed one or for some reason had not received one. Location is an independent variable and provides some pertinence to the study. An ANOVA was completed for the dependent variable teacher insensitivity toward learners and the independent variable location which had been identified as having a significant correlation (Table 21, p. 81). Levene's Test of Homogeneity of Variances suggested that equality of group variances could be assumed for teacher insensitivity toward learners ($p > .05$). Results of the ANOVA are presented in Table 75.

Table 75 *ANOVA of Teacher Insensitivity toward Learners and Location*

Source	*df*	*F*	*?*	*p*
Teacher Insensitivity toward Learners				
Between Groups	17	2.628	0.925	.001**
Within Groups	178		.352	
Total	195			

** Significant at the 0.01 level.

Teacher insensitivity toward learners scores were calculated for each location. An analysis of variance indicated a significant difference between the groups on the measure of teacher insensitivity toward learners, $F(17,178)=2.628$, $p<.01$. No post hoc tests were performed as one group had fewer than two cases. A Kruskal-Wallis H test could not be computed as there were not enough valid cases to perform the test.

Summary

Research question one asks is there a relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development? The null hypothesis states, there is no relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development.

Variances between the means for job classification and the IPI sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners, are true. The null hypothesis, there is no relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development, is rejected. There is a relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development, and it does not contribute to creating the conditions conducive for learning in school-based staff development.

There is a gap in the relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development, specifically in the areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners. This gap is a difference between what principal's state they do to create the conditions for learning in school-based staff development and

what teachers report principals do to create the conditions for learning in school-based staff development. This is evidenced by the following data.

Correlations between dependent and independent variables for all subjects suggest a slight association between principals and teachers for the IPI sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners of the IPI which are significant ($p<.01$) for this population. Wilks' ?=.639, $F(4,188) = 26.530$, $p<.01$ indicates the variables teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity differentiate the groups in the variable job classification. MANOVA *F* ratios for the IPI sub-areas of teacher empathy with learners (19.590), teacher trust of learners (10.962), accommodating learner uniqueness (11.959), and teacher insensitivity toward learners (43.147) are robust and significant ($p<.01$) meaning the obtained differences in the sample is a true one. Kruskal-Wallis H tests indicated significant differences ($p<.01$) for these variables also.

T-tests used to determine the level of statistical significance of an observed difference between sample means showed significant mean differences occurred for teacher empathy with learners $t(79.380) = -7.314$, $p < .01$, teacher trust of learners $t(163.746) = -6.928$, $p < .01$, accommodating learner uniqueness $t(59.843) = -5.117$, $p < .01$, and teacher insensitivity toward learners $t(45.551) = -7.832$, $p < .05$ for the independent variable of job classification. Mann Whitney U tests indicated significant differences ($p<.01$) for these variables also.

An ANOVA for IPI sub-areas and the independent variable job classification 2 (jobs grouped by principal, assistant principal, supervisor, and teacher) reveal F ratios for

IPI sub-areas of teacher empathy with learners (9.773), teacher trust of learners (5.557), accommodating learner uniqueness (6.074), and teacher insensitivity toward learners (19.743) are robust and significant ($p<.01$) meaning the obtained differences between the variables is a true one. Kruskal-Wallis H tests indicated significant differences ($p<.01$) for these variables also.

Post hoc tests reveal teacher means were significantly less than principal means for the IPI sub-areas of teacher empathy with learners ($p<.01$), teacher trust of learners ($p<.05$), accommodating learner uniqueness ($p<.05$), and teacher insensitivity toward learners ($p<.05$). Post hoc tests reveal teacher means were significantly less than assistant principal means for the IPI sub-areas of teacher empathy with learners ($p<.05$), accommodating learner uniqueness ($p<.05$), and teacher insensitivity toward learners ($p<.05$). Mann Whitney U tests indicated significant differences for these variables also between teachers and principals for the IPI sub-areas of teacher empathy with learners ($p<.01$), teacher trust of learners ($p<.01$), accommodating learner uniqueness ($p<.01$), and teacher insensitivity toward learners ($p<.01$). Mann Whitney U tests indicated significant difference between teachers and assistant principal for the IPI sub-areas of teacher empathy with learners ($p<.01$), teacher trust of learners ($p<.05$), accommodating learner uniqueness ($p<.05$), and teacher insensitivity toward learners ($p<.01$).

From the perspective of principals, no gap exists in the relationship with teachers except in the sub-area of teacher insensitivity toward learners where principals report a higher level of insensitivity in comparison to what teachers believe the attitudes of their principals are towards them. From the perspective of teachers the gap exists in what they believe the attitudes of their principals are towards them in showing empathy to teachers,

trusting teachers, and accommodating the teachers' uniqueness. The gap does not exist in what teachers believe the attitudes of their principals are towards them in being insensitive towards them as learners.

The sub-areas of the IPI: teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners should contribute to creating the conditions conducive for learning in school-based staff development. In this study, the gap in the relationship between principals and teachers does not contribute to a creating the conditions conducive for learning in school-based staff development.

Research question two asks, what is the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning? Data analysis of the scores of specific IPI sub-areas and sub-area questions indicates a gap between principals and teachers in the areas of teacher empathy toward learners, teacher trust of learner, accommodating learner uniqueness, and teacher insensitivity toward learners. The attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning is generally favorable. This is evidenced by the following data.

Principals' responses on the IPI in comparison to the teachers were higher and in the sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity, scores of principals were noticeably higher than teachers. This indicates principals believe they express attitudes of empathy, trust, and make accommodation to teacher uniqueness. The higher score in the sub-area of

teacher insensitivity to learners indicates a lack of sensitivity to teachers as learners due to the fact these items are stated in a negative manner. Principal responses to specific IPI questions offer additional insight in the sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity.

Data from ANOVA/Kruskal-Wallis and *t*-test/Mann Whitney U tests reveal the answers of principals were significantly higher than the answers of teachers except for teacher insensitivity toward learners where higher scores are not good due to the fact the items are negatively stated. The results in each sub-area are in relation and comparison to the responses of teachers.

In the sub-area of teacher empathy with learners with five questions, responses indicate the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning principals was they: (a) felt fully prepared to teach; (b) notice and acknowledge positive changes in teachers; (c) express appreciation to teachers who actively participate; and (d) promote positive self-esteem in teachers.

In the sub-area of teacher trust of learners with 11 questions, responses indicate the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning principals was they: (a) purposefully communicate to teachers that each is uniquely important; (b) feel teachers need to be aware of and communicate their thoughts and feelings; (c) hear what teachers indicate their learning needs are; (d) engage teachers in clarifying their own aspirations; (e) develop supportive relationships with teachers; and, (f) respect the dignity and integrity of teachers.

In the sub-area of accommodating learner uniqueness with seven questions, responses indicate the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning principals was they: (a) believe that teachers vary in the way they acquire, process, and apply subject matter knowledge; and, (b) encourage teachers to solicit assistance from other teachers. The ANOVA analysis revealed one question that was not significant ($p>.05$) that Kruskal-Wallis H test found significant ($p<.05$). The attitude of principals for this question is they really listen to what teachers have to say.

In the sub-area of teacher insensitivity toward learners with seven questions, responses indicate the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning principals was they: (a) feel impatient with teachers' progress; (b) experience frustration with teacher apathy; (c) have difficulty with the amount of time teachers need to grasp various concepts; and, (d) feel irritation at teacher inattentiveness in the learning setting. The ANOVA analysis revealed one question that was not significant ($p>.05$) that Kruskal-Wallis H test found significant ($p<.05$). The attitude of principals for this question is they get bored with the many questions teachers ask.

A Pearson product moment correlation coefficient was used to examine the relationship between sub-area scores on the IPI for principals. Significant positive correlations were found between teacher empathy with learners and teacher trust of learners ($r=.478$, $p<.05$) and teacher trust of learners and accommodating learner uniqueness ($r=.504$, $p<.01$). A Spearman's Rho correlation was used to examine the relationship between sub-scores on the IPI for principals. Significant positive

correlations were found between teacher empathy with learners and teacher trust of learner ($r=.383$, $p<.05$) and teacher trust of learners and accommodating learner uniqueness ($r=.347$, $p<.05$). While principals demonstrate the interconnectedness of the sub-areas teacher empathy with learners and teacher trust of learners, and teacher trust of learners and accommodating learner uniqueness, their scores reflect a much higher understanding and application of the principles of these sub-areas.

From the perspective of principals in comparison with teachers, principals have a favorable attitude toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning except in the sub-area of teacher insensitivity toward learners. There remains in all four sub-areas of the IPI discussed a gap between what principals believe their attitudes are toward teachers and what teachers actually believe the attitudes of their principals are towards them in creating the conditions conducive for learning in school-based staff development. While principals say they empathize with teachers as learners, trust teachers as learners, and accommodating to teachers uniqueness as learners, the perception of teachers which will be presented in the next section is much different.

Research question three asks, what do teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning? Data analysis of the scores of specific IPI sub-areas and sub-area questions indicates a gap between teachers and principals in the areas of teacher empathy toward learners, teacher trust of learner, accommodating learner uniqueness, and teacher insensitivity toward learners. What teachers as learners believe the attitudes of their principals are toward them in school-

based staff development regarding the principles of creating the conditions conducive for learning is generally guarded and is often contradictory to what principals believe their attitudes are toward teachers. This is evidenced by the following data.

Teachers' responses on the IPI in comparison to the principals were lower. In the sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity the scores of teachers were noticeably lower than principals. This indicates teachers believe their principals do not express attitudes of empathy, trust, and make accommodation to teacher uniqueness. The lower score in the sub-area of teacher insensitivity toward learners indicates some sensitivity to teachers as learners due to the fact these items are negatively stated.

Teacher responses to specific IPI questions offer additional insight in the sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity. Data from ANOVA/Kruskal-Wallis and *t*-test/Mann Whitney U tests reveal the answers of teachers were significantly lower than the answers of teachers except for teacher insensitivity toward learners where lower scores are good due to the fact the items are negatively stated. The results in each sub-area are in relation to the responses of principals.

The IPI sub-area teacher empathy with learners has five questions and responses by teachers were significant on four of the five questions. Teachers' responses answer research question three in the following manner. Teachers believe the attitudes of the principals are that principals: (a) are fully prepared to teach, but not as much as principals actually believe they are; (b) notice and acknowledge positive changes in teachers, but not as much as principals actually believe they do; (c) express appreciation to teachers

who actively participate, but not as much as principals actually believe they do; and (d) promote positive self-esteem in teachers, but not as much as principals actually believe they do.

The IPI sub-area teacher trust of learners has 11 questions and responses by teachers were significant on six of the 11 questions. Teachers' responses answer research question three in the following manner. Teachers believe the attitudes of the principals are that principals: (a) purposefully communicate to teachers that each is uniquely important, but not as much as principals actually believe they do; (b) feel teachers need to be aware of and communicate their thoughts and feelings, but not as much as principals actually believe they do; (c) hear what teachers indicate their learning needs are, but not as much as principals actually believe they do; (d) engage teachers in clarifying their own aspirations, but not as much as principals actually believe they do; (e) develop supportive relationships with teachers, but not as much as principals actually believe they do; and, (f) respect the dignity and integrity of teachers, but not as much as principals actually believe they do.

The IPI sub-area accommodating learner uniqueness has seven questions and responses by teachers were significant on two of the five questions. Teachers' responses answer research question three in the following manner. Teachers believe the attitudes of the principals are that principals: (a) believe teachers vary in the way they acquire, process, and apply subject matter knowledge, but not as much as principals actually believe they do; and, (b) encourage teachers to solicit assistance from other teachers, but not as much as principals actually believe they do. The ANOVA analysis revealed one question that was not significant ($p>.05$) that Kruskal-Wallis H test found significant

($p<.05$). The attitude of teachers for this question is that principals really listen to what teachers have to say but not as much as principals actually believe they do.

In the IPI sub-area teacher insensitivity toward learners has seven questions and responses by teachers were significant on four of the seven questions. Teachers' responses answer research question three in the following manner. Teachers believe the attitudes of the principals are that principals: (a) do not feel impatient with teachers' progress, which is less than what principals actually believe they do; (b) do not experience frustration with teacher apathy, which is less than what principals actually believe they do; (c) do not have difficulty with the amount of time teachers need to grasp various concepts, which is less than what principals actually believe they do; and, (d) do not feel irritation at teacher inattentiveness in the learning setting, which is less than what principals actually believe they do. The ANOVA analysis revealed one question that was not significant ($p>.05$) that Kruskal-Wallis H test found significant ($p<.05$). The attitude of teachers for this question is that principals do not get bored with the many questions teachers ask which is less than what principals actually believe they do.

A Pearson product moment correlation coefficient was used to examine the relationship between sub-area scores on the IPI for teachers. Significant positive correlations were found between teacher empathy with learners and: teacher trust of learners ($r=.856$, $p<.01$), accommodating learner uniqueness ($r=.757$, $p<.01$), and teacher insensitivity toward learners ($r=.-460$, $p<.01$). Significant positive correlations were found between teacher trust of learners and: accommodating learner uniqueness ($r=.830$, $p<.01$), and teacher insensitivity toward learners ($r=-.480$, $p<.01$). Significant positive correlations were found between accommodating learner uniqueness and teacher

insensitivity toward learners (r=-.392, p<.01).

A Spearman's Rho correlation was used to examine the relationship between sub-scores on the IPI for teachers. Significant positive correlations were found between teacher empathy with learners and: teacher trust of learners (r=.695, p<.01), accommodating learner uniqueness (r=.586, p<.01), and teacher insensitivity toward learners (r=.-370, p<.01). Significant positive correlations were found between teacher trust of learners and: accommodating learner uniqueness (r=.661, p<.01), and teacher insensitivity toward learners (r=-.351, p<.01). Significant positive correlations were found between accommodating learner uniqueness and teacher insensitivity toward learners (r=-.291, p<.01). These correlations reveal what teachers believe about the strength of the sub-areas yet their total scores were noticeably lower than the scores of principals. This indicates teachers believe these areas are associated together; however, they believe their principals do not demonstrate them.

From the perspective of teachers in comparison with principals, teachers as learners believe the attitudes of their principals toward them in school-based staff development regarding the principles of creating the conditions conducive for learning are not very strong except in the sub-area of teacher insensitivity toward learners. Teachers as learners believe the attitudes of the principals toward them in school-based staff development regarding the principles of creating the conditions for learning is not as strong as principals' actual attitudes toward teachers in the areas of teacher empathy with learners, teacher trust of learners, and accommodating teacher uniqueness. Teachers as learners believe the attitudes of principals toward them in school-based staff development regarding the principles of creating the conditions for learning is stronger than principals'

actual attitudes toward teachers in the area of teacher insensitivity toward learners.

In comparison to teachers, principals' attitudes toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning, are positive. In comparison, principals believe they express an attitude of empathy, trust, making accommodation to a teacher's learning uniqueness, and have insensitivity toward teachers as learners.

In comparison to principals, what teachers as learners believe the attitudes of their principals toward them in school-based staff development regarding the principles of creating the conditions conducive for learning, are guarded and contradictory to what principals indicate they believe about their teachers. In comparison, teachers believe their principals do not express an attitude of empathy, trust, making accommodation to a teacher's learning, and do not have insensitivity toward teachers as learners.

In the four sub-areas of the IPI discussed, the relationship of these factors between teachers and principals contributes to a gap between what teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning and what principals actually indicate they believe towards teachers in creating the conditions conducive for learning in school-based staff development. While teachers say principals do not empathize with teachers as learners, do not trust teachers as learners, do not accommodate their uniqueness as learners, and do not demonstrate insensitivity, the perception of principals is much different.

This perception is the gap in the relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their

principals are toward them in school-based staff development. There is a conflicting view of the relationship between teachers and principals that is revealed in the IPI sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners. These factors of the IPI are shown in the data to not contribute to the establishment of a climate conducive for learning in school-based staff development, in contrast to the fact that these factors should contribute to the establishment of a climate conducive for learning in school-based staff development.

CHAPTER V

Findings, Discussion, and Conclusions

In this chapter, a summary of the findings and a discussion of their relationship with relevant literature are given. Implications for practice and recommendations for further research are presented and discussed.

Findings and Discussion

Principals as learning leaders have three main responsibilities. The first responsibility is creating conditions conducive for learning: or, primarily where teachers can learn. Staff development in a school-based setting comprises the learning setting for teachers or the setting for adult learning experiences. Principals' familiarity with how adults learn and effective staff development design are important aspects of creating these conditions.

The second responsibility is to establish and implement a school-based staff development program. This includes understanding the importance of creating conditions for learning in staff development and setting an example through attitude and behavior. Principals, through the creation of a supportive and positive environment in which they respect teachers, and by the personal commitment of principals to their own growth through actively being involved in staff development activities, help teachers feel secure as they engage in learning activities.

The third responsibility is to support the growth and development of adults, who in this case are teachers. This includes knowing how to create conditions conducive for learning and acting as a facilitator and resource person for other learners. An awareness of adult learning theory, specifically andragogy, helps in creating conditions where adults

feel trust and respect from and towards the facilitator of learning. This trust and respect form a safety net of permission which helps break down barriers to learning, so teachers can engage in learning with excitement and enthusiasm. In turn, teachers respect and trust principals.

Many school-based staff development activities lack the effectiveness of helping teachers improve their abilities to perform their professional responsibilities to improve student learning because principals lack the skills of adult learning (Richardson & Prickett, 1994; Wood, Thompson & Russell, 1981). Do principals understand adult learning and do they have the competencies to create the conditions for learning in school-based staff development? This question was the essence of this study and to answer it, three research questions were developed. They are discussed separately with their respective findings.

1. Is there a relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development?

H_o There is no relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development.

In this study, variances between the means for job classification and the IPI sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners, are true. The null hypothesis, there is no relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-

based staff development, is rejected. There is a relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development, and it does not contribute to creating the conditions conducive for learning in school-based staff development.

The sub-areas of the IPI, teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners, should contribute to creating the conditions conducive for learning in school-based staff development. In this study, they do not contribute to creating the conditions conducive for learning in school-based staff development because of the gap in the relationship between principals and teachers.

The gap in the relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development, occurs specifically in the areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners. This gap is a difference between what principals state they do to create the conditions conducive for learning in school-based staff development and what teachers report principals do to create the conditions conducive for learning in school-based staff development.

Contrary to the findings of most studies, the results of this study are not in line with the literature on: the role of principals as the learning leaders is influencing the school environment to support, sustain, and protect learning (Blankstein, 2004; Drago-Severson, 2004; Guthrie & Reed, 1986; Hoover, 1998); the significance of the role of

principals in establishing a productive learning climate which enables staff to grow so the school can help students learn (Crawford, Bodine, & Hoglund, 1993; DuFour & Berkey, 1995; Johnson, 1978; Killion, 1999); the role of the principals being the key to quality and their support is crucial to change at the school level and creating the conditions which result in increased student learning (Crawford, Bodine & Hoglund, 1993; Drago-Severson, 2002; DuFour, 1991; Fullan & Stiegelbauer, 1991; Lambert & Lambert, 1985; Purcell, 1987); developing and fostering staff development to improve and transform schools (Leithwood & Jantzi, 1990; Murphy, 2000); developing the conditions for learning which meet the needs of adult learners (Imel, 1988; Knowles, 1996; Knowles, 1984; Terehoff, 2002); critical elements in developing positive school climates conducive for teacher learning which are respect, support, and trust (Blase & Kirby, 2000; DuFour, 1991); and, the attitudes and behaviors of principals which are crucial in the development of a supportive learning climate for staff development (Griffin, 1982; Johnson, 1978). Creating the conditions for learning in staff development is an important aspect of the staff development process and should not be taken lightly.

The number one factor that leaders can exercise in facilitating positive change is creating a supportive and encouraging environment (Richardson, Flanigan, Lane, & Keaster, 1992). It is the principal's responsibility to establish learning as the priority in the school (Blankstein, 2004) and exercise leadership in creating the conditions that support the development of a positive and healthy learning atmosphere in the school where teachers can learn (Drago-Severson, 2002; Hoover, 1998). Results from teachers about their principals indicate principals are not exercising leadership in creating the conditions that support the development of a positive and healthy learning atmosphere in

the schools where teachers can learn. Since that is the case, it would appear teachers in this study are not learning in staff development activities to the degree they could be learning.

Principals are to promote the improvement of the school through staff development (Leithwood & Jantzi, 1990). Professional development within a school is an area in which principals are expected to assist teachers to develop skills to become more effective in the classroom to increase student learning (NSDC, 2001). Results from teachers about their principals would indicate that schools in this study are not improving to the degree of effectiveness they could be improving because the principals are not assisting teachers to become more effective through staff development. As principals influence the conditions for learning in the building, positively or negatively, the nature of the principal-teacher relationship is the primary factor that affects the students' perceptions of the environment. If students' perceptions of the environment are based on the principal-teacher relationship in this study, students' perception of the learning environment will be low.

In spite of the lack of principal leadership in these areas, learning could still be occurring for some teachers who have self-direction to improve their daily professional performance. This could also occur for some schools which could be improving in spite of the principal's leadership. The breadth and extent of the effectiveness of teacher learning and school improvement in general would be questionable. Principals play a major role in establishing a productive learning climate which enables staff to grow so the school can help students learn (Crawford, Bodine, & Hoglund, 1993; DuFour & Berkey, 1995; Johnson, 1978; Killion, 1999). If there is a gap in the relationship, these

conditions conducive for learning will be greatly diminished or will not be developed.

From the perspective of principals, no gap exists in the relationship with teachers except in the sub-area of teacher insensitivity toward learners where principals report a higher level of insensitivity in comparison to what teachers believe the attitudes of their principals are towards them. From the perspective of teachers the gap exists in what they believe the attitudes of their principals are towards them in showing empathy to teachers, trusting teachers, and accommodating the teachers' learner uniqueness. For teachers the gap does not exist in what teachers believe the attitudes of their principals are towards them in having insensitivity towards them as learners, but does exist from the perspective of the principals.

Critical elements in developing a positive school climate conducive for teacher learning are respect, support, and trust (Blase and Kirby, 2000) which are foundational aspects of this study and are part of the gap in this study. If the attitudes of the principals are perceived by teachers as lacking empathy, lacking trust, and a failure to accommodate their learner uniqueness then the success of learning is in jeopardy. Teachers will not view the learning climate as being supportive due to the attitudes and behaviors of the principals.

Attitudes and behaviors of principals are two factors crucial in the development of a supportive learning climate for staff development (Griffin, 1982; Johnson, 1978). These two factors greatly influence the level of success of the conditions conducive for learning. DuFour (1991) states "it is the actions of principals, not their exhortations, which communicate most forcefully and effectively" (p. 44).

An example of this attitude and behavior factor in the study was the difference of

sub-area scores of the IPI between principals and teachers. On the sub-area teacher empathy with learners, principals scored significantly higher than teachers. Question analysis suggests principals describe their attitudes: (a) as feeling fully prepared to teach more than teachers believe their principals actually are prepared to teach; (b) as noticing and acknowledging to teachers positive changes in them more than teachers believe their principals actually notice and acknowledge positive changes in them; (c) as expressing appreciation to teachers when they actively participate more than teachers believe their principals actually express appreciation toward them, and (d) as promoting self-esteem in teachers more than teachers believe their principals actually promote self-esteem in them.

Some of the reason for the difference in principal and teacher attitudes as measured on the IPI may be found in the fact principals do not model by example what they are saying, if indeed they are saying it. This "do what I say not what I do" is what creates and sustains the administrator-teacher ravine (McPherson & Lorenz, 1985). It also coincides with Smith and Andrews (1989) statement on instructional leadership, "if principals do not value instructional leadership activities, then changing their behavior will be difficult" (p. 25). Actually their behaviors are consistent with their attitudes and values. Either the variances obtained on the IPI between teachers and principals are not significant or principals' attitudes toward teachers in creating the conditions conducive for learning in school-based staff development are valid and the attitudes and behavior of principals are not consistent with what they actually say they believe. While principals seem to grasp the overall concept intellectually, their practical application was lacking.

The research states that influencing the school environment to support, sustain, and protect learning is the main role of principals as the learning leader (Blankstein,

2004; Drago-Severson, 2004; Guthrie & Reed, 1986; Hoover, 1998). Principals influence the environment by their practice not by what they say. Weber (1987), states that principals should model the importance of learning and the application of that learning in life experiences with students and teachers. A lack of exemplifying this by principals can have an adverse effect on the staff including the morale of staff which is a crucial factor in the establishment of a positive learning climate for staff development activities (Purcell, 1987).

If teachers are responsible for creating the conditions conducive for student learning in the classroom, it follows that principals are responsible for creating the conditions conducive for adult or teacher learning in the school setting. "The classroom is a learning environment for students just as professional development activities are learning environments for teachers" (Cwikla, 2002, p. 4) and administrators are "key figures in the design of teacher learning experiences and professional development" (Magliaro, Dika, Greene, & Lubbs, 2001, p. 23).

Principals have not learned how to create conditions conducive for learning and have not learned how to teach adults effectively. Richardson and Prickett (1994) state "a major reason for the failure of most inservice activities conducted by principals is a failure to understand andragogy" (p. 86). Principals who use andragogical concepts when they plan and implement inservice activities tend to have successful inservice activities (Richardson & Prickett, 1994). They must learn the basic premises of andragogy if they are to be sound instructors of teachers. Principals' development as an andragogical educator is one way to build a bridge back across the ravine between administrators and teachers (McPherson & Lorenz, 1985).

From an andragogical perspective, the role of principals in school-based professional development is one of a facilitator, resource person, or co-inquirer rather than instructor. As a facilitator of learning, they set the climate of the learning experience and the tone of the program, develop enthusiasm, and encourage open expression and decision making (Rogers, 1969; Terehoff, 2002). In this role they become a person who the learner can respect and trust (Hill et al., 1995; McPherson & Lorenz, 1985).

These characteristics again are contrary to what was found in this study. On the IPI sub-areas of accommodating learner uniqueness, principals' scores suggest that principals listen to what teachers have to say and encourage teachers to solicit assistance from other teachers more than teachers actually believe their principals actually listen to and encourage teachers. On the IPI sub-area teacher insensitivity toward learners, principals' scores in comparison to teachers' scores suggest principals are impatient with teacher's progress, experience frustration with teachers' apathy, and have difficulty with the amount of time teachers need to grasp various concepts. In contrast to what principals believe, teachers believe the attitudes of their principals toward them are that principals: are not impatient with teacher's progress; do not experience frustration with teachers' apathy; and, do not have difficulty with the amount of time teachers need to grasp various concepts.

In this case, teachers believed the attitudes of their principals were better than what principals believed their attitudes were. Either something is very wrong with the data and results, or principals are good actors and actually think the way described above. In the National Association of Secondary School Principals' assessment model,

"Selecting and Developing the 21st Century Principal," 1 of the 10 vital skills for effective school leaders is the development of others. According to performance data, this particular skill was "repeatedly found as an area needing improvement" (Terehoff, 2002, p. 65). Most principals do not have the skills and competencies to teach adults effectively and they see teachers as dependent learners, just as they were when they were children rather than seeing teachers as independent learners (McPherson & Lorenz, 1985).

Since building staff development activities are a large portion of the learning activities that occur for adults in a school, principals must appreciate the differences between adult and youth learners. When working with adult learners, principals need to be aware of the "characteristics that distinguish adult learners from student learners and the principles on which the process of adult learning is based" (Terehoff, 2002, p. 66). The andragogical model (Knowles, 1996) provides suggestions when principals plan and implement staff development activities.

One of the difficulties with the literature is the implication that principals know what adult learning skills are and how to effectively use them. From this study, principals have some understanding of adult learning as evidenced by their responses (see Appendix L, page 265ff). Appendix L is referred to because principals in this study say they know about adult learning skills, but in reality they do not and their responses do not coincide with the literature.

Responses from principals indicated a general understanding and overview of adult learning principles. Some responses sounded like a list of things that could be done to staff rather than done with staff. This would be similar to the approaches taken by the

instructional leader versus the learning leader. Many of the comments focused on life experiences and climate. Some of the comments indicating an understanding included: respect for life's experiences; climate that is conducive toward acceptance, fairness, receptive, expressive and open to differences in individuals and learning levels; having and giving self-respect; promoting self-worth in a supportive environment; why information needs to be learned and how it is going to be used; feedback; tie what is being taught with life experiences; and, climate conducive for success.

There is a noticeable gap between what principals are supposed to know and what they actually know. While principals have some understanding of adult learning, they do not have the competencies to create the conditions for learning in school-based staff development. Cautiously, this may or may not be a picture of most school systems. However, if it is a picture of most school systems, principals need staff development so they may acquire definitive understanding of and have opportunities to practice using adult learning principles through personal experience. They also need feedback and assistance from peers and their teachers in how effective they are in using the adult learning principles.

Teachers also have a part in creating the conditions for learning in school-based staff development by being stronger self-directed learners. From this study, teachers have some understanding of adult learning as evidenced by their responses (see Appendix L, page 265ff). Appendix L is referred to because teachers in this study have a varied understanding of adult learning skills and their personal role in their own learning.

Responses from teachers categorized themselves into groups around topics such as teaching styles, learning styles, professional development, linkage to students in the

classroom, staying current in the subject taught, various methods of learning (one on one, workshop), personal characteristics of being a better person or helping others, respect, learning environment, and lifelong learning. Twelve responded they did not know what adult learning principles were. Some of the comments indicating an understanding included: learning and applying knowledge that is useful and practical; foster mutual respect; fostering a learning process in which people are continuously learning; safe and secure learning environment; motivation; characteristics adults bring to the learning setting; sharing of experiences; tailoring a learning program that meets the individual adult's needs; continuing to learn.

Rogers (1965) sees learning as a process that is internal and controlled completely by learners as they interact with their perceived environment. When the conditions exhibit trust, honesty, openness, and acceptance and where teachers share in the ownership of learning, barriers of learning can be broken down for reluctant learners. Knowles (1984) states, reluctant learners are then "able to develop a more positive attitude about themselves" (p. 403) and "feel motivated beyond anything they have previously known" (p. 403). When there is positive rapport between the learner (teacher) and facilitator (principal), the learner feels safe to share in the ownership of learning as an equal with the facilitator who is seen as "approachable and accessible" (Imel, 1988, p. 2).

On the IPI sub-area teacher trust of learners, principals scored significantly higher than teachers. Principal scores suggest that principals are open and receptive, feel teachers need to communicate their thoughts and feelings, hear what teacher learning needs are, engage teachers in clarifying their own aspirations, develop supportive relationships with teachers, and respect the dignity and integrity of teachers. Teacher

scores suggest that principals do not exhibit the characteristics listed above to the degree that principals believe they do. If teachers do not experience the conditions conducive for learning such as trust, respect, and value for who they are as professionals, they will be reluctant to engage and act on any learning that they are exposed to in that setting.

When principals recognize teachers as self-directed and autonomous individuals, teachers can positively contribute to the informal, positive, and productive psychological climate (Knowles, 1980). It is in this kind of professional development setting that teachers will feel and function as adults and share with enthusiasm, humor, and excitement during the learning process. These conditions conducive for learning, in which teachers share, discuss problems of importance, and have the expectation to share in the responsibility for their learning in an open and informal way, is imperative to effective adult learning (Imel, 1988; Richardson & Prickett, 1994). It is possible that the principals in this study have never experienced themselves the kind of learning environment that is supportive, trusting, and respectful (Shore, Girogis & Pritchard, 1993). When you couple this with the fact many principals know little about staff development (Arbuckle, 1995; LaPlant, 1995), principals are at a severe disadvantage as they interact with their staff in staff development.

Adult learning or the conditions to enhance adult learning have been discussed in the literature of staff development and principals (Butler, 1989; Drago-Severson, 2000; Killion, 1988; Levine, 1989; McPherson & Lorenz, 1985; Richardson & Prickett, 1994; Terehoff, 2002; Wood, Thompson & Russell, 1981). There has been little if anything written about what principals know or do not know about adult learning, and little if any follow-up of what principals perceive of as adult learning principles. Therein lies part of

the problem. What principals believe about adult learning in this study is listed in Appendix L on page 265ff.

Creating the conditions conducive for learning that meets adult learner needs is not only a prerequisite to effective learning but is an important element of a successful adult education program (Imel, 1988; Knowles, 1984). It is a deliberate and ongoing process in which consistent effort and attention is needed by principals. It is characterized by growth, trust, openness, collegiality, productivity, and high involvement by principals and staff alike.

Do principals understand adult learning and do they have the competencies to create the conditions for learning in school-based staff development? This question was the essence of this study and to answer it, three research questions were developed. The second research question is discussed with its' respective findings.

2. What is the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning?

The attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning is generally positive. However, a comparison of data between principals and teachers reveals the answers of principals were significantly higher than the answers of teachers except for the sub-area teacher insensitivity toward learners. In general, principals believe they express attitudes of empathy, trust, and accommodation for uniqueness to teachers as learners. Principals' attitudes toward learners were more insensitive as compared to what teachers actually believed the attitudes of their principals were toward

them.

Data analysis of the scores of specific IPI sub-areas and sub-area questions indicates a gap between principals and teachers in the areas of teacher empathy toward learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners. The attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning is generally favorable.

One of the most striking findings in the data was that principals overestimate their understanding and underestimate the effect of their attitudes toward teachers in creating the conditions for learning in school-based staff development. Principals state that they received the greatest exposure to adult learning from reading in a book or journal article, master's level college/university course, observation, professional dialogue, reflection, and gut feelings about what I ought to do as a principal. They rate themselves on the IPI in the upper half of the average category level and have scores that are significantly higher than teachers in four of the seven IPI sub-areas (teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners).

As principals rated themselves on the IPI and RPS, their rating of themselves significantly higher on these four areas may indicate several things. Either principals did not read the questions carefully, did not read the scoring guide of whether the number one or four was lower or higher, purposefully wanted to inflate their ratings to make themselves look better than they knew they were, or they are accurate portrayals of what principals believe which may not be reflected in their actions. Barth believes that

principals hurt themselves greatly by trying to play the part of the one who knows it all or knows how to do it (NSDC, 2000). He asserts that it is a risky statement to make when principals acknowledge they do not know how to do something.

Responses on the open-ended question on the demographic questionnaire indicated a general understanding and overview of adult learning principles. As stated earlier, some responses sound like a list of things that could be done to staff rather than done with staff. Even if principals' attitudes toward teachers in creating the conditions conducive for learning in school-based staff development were valid, a discrepancy exists between what they report and how teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning.

Do principals understand adult learning and do they have the competencies to create the conditions for learning in school-based staff development? This question was the essence of this study and to answer it, three research questions were developed. The third research question is discussed with its' respective findings.

3. What do teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning?

Scores of specific IPI sub-areas and sub-area questions indicates a gap between teachers and principals in the areas of teacher empathy toward learners, teacher trust of learner, accommodating learner uniqueness, and teacher insensitivity toward learners. What teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions

conducive for learning is generally guarded and is often contradictory to what principals believe their attitudes are toward teachers.

Teachers' responses on the IPI in comparison to the principals were lower. In the sub-areas of teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity towards learners, the scores of teachers were noticeably lower than principals. This indicates teachers believe their principals do not express attitudes of empathy, trust, and make accommodation to teacher uniqueness. The lower score in the sub-area of teacher insensitivity toward learners indicates some sensitivity toward teachers as learners due to the fact these items are negatively stated. In general, teachers believe their principals express empathy with them as learners sometimes, trust them as learners sometimes, accommodate their learner uniqueness sometimes, and are insensitive to them as learners somewhere between never and rarely.

Correlation results reveal teachers believe these four areas (teacher empathy with learners, teacher trust of learners, accommodating learner uniqueness, and teacher insensitivity toward learners) are closely linked to each other yet their scores were noticeably lower than the scores of principals. This difference would indicate they believe their principals do not adhere to them. When group correlations between sub-areas of the IPI and the RPS were reviewed there were 30 correlations. When the groups were separated into principals and teachers, teachers had 32 correlations as compared to 13 correlations for principals. These separated correlations for teachers were more significant than the correlations for the principals. Based upon the number and significance of these correlations, teachers see a strong interconnectedness of the IPI and the RPS for creating the conditions conducive for learning. Teachers seem to understand

the National Staff Development Council's standard which states that a "supportive learning environment and the essential qualities of a learning organization are adult learning indicators for those who design, deliver, and monitor staff development" (Killion, 1998, p. 3).

Conclusions

Since the 1950's, the role of the principal has evolved from being a manager to an instructional leader. An alternate perspective views the principal as the learning leader, not only for students but also for the adults in the building, namely teachers. As the learning leader for teachers, the principal's role is to create the conditions conducive for learning, establish and implement a school-based staff development program, and support the growth and development of teachers. The conditions for learning in school-based staff development identified in this study included: teacher empathy toward learners, teacher trust of learners, planning and delivery of instruction, accommodating learner uniqueness, teacher insensitivity toward learners, experience-based learning techniques, teacher-centered learning processes, and respect.

The purpose of this research was to determine the attitudes of school principals toward teachers as learners, as the principals create the conditions conducive for learning in school-based staff development. Many school-based staff development activities lack the effectiveness of helping teachers improve their abilities to perform their professional responsibilities to improve student learning because principals lack the skills of adult learning (Richardson & Prickett, 1994; Wood, Thompson & Russell, 1981). This study was based upon the following overall question: Do principals understand adult learning and do they have the competencies to create the conditions for learning in school-based

staff development?

Three research questions and a hypothesis undergirded this overall question and supported the investigation of this question. The research questions and hypothesis were:

1. Is there a relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development?

H_o There is no relationship between the attitude of principals toward teachers as learners and what teachers as learners believe the attitudes of their principals are toward them in school-based staff development.

2. What is the attitude of principals toward teachers as learners in school-based staff development regarding the principles of creating the conditions conducive for learning?

3. What do teachers as learners believe the attitudes of their principals are toward them in school-based staff development regarding the principles of creating the conditions conducive for learning?

In general, principals are woefully lacking in the skills and competencies to create the conditions conducive for learning in school-based staff development. The skills and competencies lacking include two areas: staff development and personal interaction.

In staff development, principals lacked: (a) leading by example and seeking opportunities for their own growth and development; (b) leading in staff development by providing activities that focus on improving student achievement/instruction/learning throughout the building; (c) leading by being actively involved and participating in school-based staff development activities; and, (d) leading by embedding staff

development in the life of the school.

In personal interaction, principals lacked: (a) treating teachers with respect, trust, support, and valuing them as professionals and their individual contributions; (b) showing appreciation to teachers; (c) listening and understanding; (d) communicating in an open, honest, and positive manner in word and action; (e) building relationships and rapport with teachers; (f) being non-threatening with teachers; (g) encouraging and respecting open expression, decision making, and self-directedness; (h) being real or genuine; (i) acting as colleagues with teachers; (j) making the learning environment safe, supportive, and secure for learning to take place; and (k) not neglecting the teacher as a person.

Principals lack an understanding of learning leadership and the importance of staff development and adult learning principles. Principals "talk the talk" of being a learning leader yet their actions are lacking. In learning leadership, principals lacked: (a) putting learning at the center of everything they do; (b) protecting, supporting, and sustaining learning; (c) keeping teachers and students focused on learning amid distractions; (d) fostering staff development; and, (e) having a thorough understanding of andragogy by telling adults why they should learn something, helping teachers move from a dependent to self-directed perspective on their own professional growth, valuing teacher's experiences as frameworks for new ideas and skills, connecting learning in a staff development activity to how teachers can perform more effectively and satisfyingly, keeping staff development activities task-centered and that are relevant to teachers, and providing extrinsic and intrinsic motivators.

Teachers understand the importance and interconnectedness of the conditions conducive for learning in school-based staff development. They lack the confidence of

being more self-directed in their own learning.

Implications for Practice

Principals and teachers in this district would benefit by a better understanding and implementation of andragogy which is generally not a part of coursework for principal or teacher certification. Recommendations include ongoing discussion sessions be held for principals on how to support the growth and development of teachers. Sessions should: (a) discuss the role of experience and motivation in adult learning; (b) include how to help teachers gain an understanding of and implement self-directed learning, so teachers can become actively involved in and take responsibility for their own learning; and, (c) help principals learn that questions of how, what, when, and why teachers learn, also define teachers as individuals as well.

Principals work with children and adults on a daily basis. Most principals have had significant pedagogical background in teaching, curriculum, and classroom management. Since a great deal of a principal's time is spent working with adults, they need an andragogical background as well in the foundations of adult education and adult learning. This may be accomplished several ways. The main way of accomplishing this is through a change in graduate degree programs to include adult learning or adult education as a separate required course or series of courses for a principal certification or degree program. A graduate course setting would provide extended time for discussion, modeling, and practice. Future and aspiring principals would have an opportunity to not only conceptually understand how adults learn, but would learn first hand through their own participation, the strategies to help adults be self-directed learners.

Other ways this may be accomplished is by: (a) developing a specific strand of

adult learning as part of a principal's academy; (b) developing a specific strand of adult learning as part of a school district's staff development with principals or aspiring principals; (c) lobbying administrator associations to not only acknowledge but also implement the importance and practice of adult learning by including it at conferences through keynote speeches, workshops, and roundtable discussions; (d) including a component of adult learning into Interstate School Leaders Licensure Consortium (ISLLC) standards when they are revised; (e) bring together directors of national principal groups, staff development groups, curriculum groups, and adult education groups for discussion of commonality and future collaboration; and, (f) acknowledge school principals who exemplify the practice of adult learning by adult education groups and principal associations.

Teachers, as learners, should: (a) have a course or courses on adult learning as part of a bachelor's degree and master's degree program; (b) experience adult learning in their bachelor's degree and master's degree program; (c) have staff development sessions on adult learning as part of a district staff development program; and, (d) experience adult learning in their work setting. Through firsthand use and application of the skills and strategies to improve their own self-directed and lifelong learning, these courses and staff development sessions in conjunction with teacher's personal experience in them would assist teachers in understanding how they are responsible for their own learning, and implementing the same.

Recommendations for Further Research

Since this study is limited to the school district where the data was collected and is specifically limited to one school district, further research should consider the

following statistical assumptions to build upon the current study: (a) replicate the study with more districts or on a larger scale with groups of principals and teachers, (b) use a stratified random sampling, (c) survey equal and sufficient numbers of teachers and principals, (d) revise the RPS for principals to be more of a self-reporting instrument than what Frei and Shaver designed the RPS to be which is an instrument measuring the concept of respect in close interpersonal relationships.

Other suggestions for further research involving creating the conditions conducive for learning in school-based staff development include: (1) have principals and teachers rate the success of building staff development activities by their effectiveness and compare the results, (2) use an andragogy checklist for planning and implementing staff development activities versus no checklist for planning and implementing staff development activities, (3) have teachers rate themselves as self-directed learners as compared to principals rating of the teachers as self-directed learners, (4) have principals indicate what their role is in staff development (facilitator, resource person, co-inquirer, instructor).

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APPENDICES

Appendix A:

Letter of Consent

Department of Education

8001 Natural Bridge Road
St. Louis, Missouri 63121-4499
Telephone: 314-516-5946
Fax: 314-516-5942
E-mail: henschkej@umsl.edu

Informed Consent for Participation in Research Activities

Learning Leadership: An Investigation of Principal Competencies/Skills in Creating the Conditions for Learning in School-Based Staff Development

Participant _____ HSC Approval Number __050421S_____

Principal Investigator _Arnold Stricker_____ PI's Phone Number __636.296.8000 x14___

Why am I being asked to participate?

You are invited to participate in a research study investigating the attitudes of principals toward teachers as the conditions for learning are created in staff development, conducted by Arnold Stricker, a doctoral student at the University of Missouri-St. Louis. You have been asked to participate in the research because you are a current teacher or principal in the Fox C-6 School District and may be eligible to participate. We ask that you read this form and ask any questions you may have before agreeing to be in the research. Your participation in this research is voluntary. Your decision whether to participate will not affect your current or future relations with the University or Fox C-6 School District. If you decide to participate, you are free to withdraw at any time without affecting that relationship.

What is the purpose of this research?

The purpose of this research is to determine what the attitudes of principals are toward teachers who participate in staff development at the building level.

What procedures are involved?

If you agree to participate in this research, you can expect:

- The study consists of completing the following: demographic questionnaire, *Instructional Perspectives Inventory (IPI)*, and the *Respect for Partner Scale (RPS)*.
- Completing the demographic questionnaire, *IPI*, and *RPS* should take between 20-30 minutes.
- Completion of the questionnaire, *IPI*, and *RPS* should be done within one week of receiving the information.
- Mail the completed items in the return envelope supplied.
- Results of the study will be provided upon request.

Approximately 700 teachers and principals may be involved in this research for the University of

Missouri-St. Louis. Participants will come from all 17 school sites in the Fox C-6 School District.

What are the potential risks and discomforts?

There are no risks or discomforts associated with this research.

Are there benefits to taking part in the research?

There are potential benefits to the researcher, to you, and other participants if understanding these conditions are helpful in improving staff development.

What other options are there?

You may choose not to participate in this research.

Will I be told about new information that may affect my decision to participate?

During the course of the study, you will be informed of any significant new findings (either good or bad), such as changes in the risks or benefits resulting from participation in the research, or new alternatives to participation, that might cause you to change your mind about continuing in the study. If new information is provided to you, your consent to continue to participate in this study will be re-obtained.

What about privacy and confidentiality?

The only people who will know that you are a research subject are members of the research team. No information about you, or provided by you during the research, will be disclosed to others without your written permission, except:

- if necessary to protect your rights or welfare (for example, if you are injured and need emergency care or when the University of Missouri-St Louis Institutional Review Board monitors the research or consent process); or
- if required by law.

When the results of the research are published or discussed in conferences, no information will be included that would reveal your identity. If photographs, videos or audiotape recordings of you will be used for educational purposes, your identity will be protected or disguised. Any information that is obtained in connection with this study, and that can be identified with you, will remain confidential and will be disclosed only with your permission or as required by law.

Personal demographic information (age, gender, building level, number of years as teacher/principal, highest degree earned, exposure to adult learning concepts) and completed inventories will be coded by building and stored in a locked filing cabinet to prevent access by unauthorized personnel. All information is confidential.

The research team will use and share your information until December 2005. At that point, the investigator will remove the identifiers from your information, making it impossible to link you to the study.

What are the costs for participating in this research?

There is no cost to you for participating in this research.

Will I be paid for my participation in this research?

You will receive no payment for participation in this research.

Can I withdraw or be removed from the study?

You can choose whether to be in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You also may refuse to answer any questions you do not want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so. If you decide to end your participation in the study, please complete the withdrawal letter found at http://www.umsl.edu/services/ora/IRB.html, or you may request that the Investigator send you a copy of the letter.

Who should I contact if I have questions?

The researcher conducting this study is Arnold Stricker. You may ask any questions you have now. If you have questions later, you may contact the researcher at 636.296.8000 x14.

What are my rights as a research subject?

If you have any questions about your rights as a research subject, you may call the Chairperson of the Institutional Review Board at (314) 516-5897.

Remember: Your participation in this research is voluntary. Your decision whether to participate will not affect your current or future relations with the University or Fox C-6 School District. If you decide to participate, you are free to withdraw at any time without affecting that relationship.

You will be given a copy of this form for your information and to keep for your records.

I have read the above statement and have been able to express my concerns, to which the investigator has responded satisfactorily. I believe I understand the purpose of the study, as well as the potential benefits and risks that are involved. I authorize the use of my PHI and give my permission to participate in the research described above.

All signature dates must match

_____ _____

Participant's Signature Date Participant's Printed Name

_____

Researcher's Signature Date

Appendix B:

Instructional Perspectives Inventory: Revised for Principals

INSTRUCTIONAL PERSPECTIVES INVENTORY
Revised for Principals

Listed below are 45 statements reflecting beliefs, feeling, and behaviors beginning or seasoned principals may or may not possess at a given moment. Please indicate how frequently each statement typically applies to you as you work with your teachers as learners in school-based staff development programs, using the codes:

A= Never B=Rarely C=Sometimes D=Often

How frequently do:

___ 1. I use a variety of teaching techniques?

___ 2. I use buzz groups (learners grouped together to process information from lectures)?

___ 3. I believe that my primary goal is to provide my teachers as much information as possible.

___ 4. I feel fully prepared to teach.

___ 5. I have difficulty understanding my teachers' points-of-view.

___ 6. I expect and accept my teachers' frustration as they grapple with problems.

___ 7. I purposefully communicate to my teachers that each is uniquely important.

___ 8. I express confidence that my teachers will develop the skills they need.

___ 9. I search for or create new teaching techniques.

___ 10. I teach through simulations of real-life settings?

___ 11. I teach exactly what and how I have planned.

___ 12. I notice and acknowledge to my teachers positive changes in them.

___ 13. I have difficulty getting my point across to my teachers.

___ 14. I believe that my teachers vary in the way they acquire, process, and apply subject matter knowledge.

___ 15. I really listen to what my teachers have to say.

___ 16. I trust my teachers to know what their own goals, dreams, and realities are like

___ 17. I encourage my teachers to solicit assistance from other teachers.

___ 18. I feel impatient with my teachers' progress.

___ 19. I balance my efforts between teacher content acquisition and motivation.

___ 20. I try to make my presentations clear enough to forestall all teachers' questions.

___ 21. I conduct group discussions?

___ 22. I establish instructional objectives?

___ 23. I use a variety of instructional media? (Internet, distance, interactive video, videos, etc.)

___ 24. I use listening teams (learners grouped together to listen for a specific purpose) during lectures?

___ 25. I believe that my teaching skills are as refined as they can be.

___ 26. I express appreciation to my teachers who actively participate.

___ 27. I experience frustration with teacher apathy.

___ 28. I prize my teachers' ability to learn what is needed.

___ 29. I feel my teachers need to be aware of and communicate their thoughts and feelings.

___ 30. I enable my teachers to evaluate their own progress in learning.

___ 31. I hear what my teachers indicate their learning needs are.

___ 32. I have difficulty with the amount of time my teachers need to grasp various concepts.

___ 33. I promote positive self-esteem in my teachers.

___ 34. I require my teachers to follow the precise learning experiences I provide them.

___ 35. I conduct role plays?

___ 36. I get bored with the many questions my teachers ask.

___ 37. I individualize the pace of learning for each teacher.

___ 38. I help my teachers explore their own abilities.

___ 39. I engage my teachers in clarifying their own aspirations.

___ 40. I ask the teachers how they would approach a learning task.

___ 41. I feel irritation at teacher inattentiveness in the learning setting.

___ 42. I integrate teaching technique with subject matter content?

___ 43. I develop supportive relationships with my teachers.

___ 44. I experience unconditional positive regard for my teachers.

___ 45. I respect the dignity and integrity of my teachers.

Appendix C:

Scoring of Instructional Perspectives Inventory: Revised for Principals

SCORING OF INSTRUCTIONAL PERSPECTIVES INVENTORY
Revised for Principals
Scoring: A=1, B=2, C=3, D=4

(1)	(2)	(3)	(4)	(5)	(6)	(7)
4 ____	7 ___	1 ___	6 ___	5 ___	2 ___	3 ___
12 ___	8 ___	9 ___	14 ___	13 ___	10 ___	11 ___
19 ___	16 ___	22 ___	15 ___	18 ___	21 ___	20 ___
26 ___	28 ___	23 ___	17 ___	27 ___	24 ___	25 ___
33 ___	29 ___	42 ___	37 ___	32 ___	35 ___	34 ___
Total ___	30 ___	Total ___	38 ___	36 ___	Total ___	Total ___
	31 ___		40 ___	41 ___		
	39 ___		Total ___	Total ___		
	43 ___					
	44 ___					
	45 ___					
	Total ___					

Appendix D:

Instructional Perspectives Inventory: Revised for Teachers

INSTRUCTIONAL PERSPECTIVES INVENTORY
Revised for Teachers

Listed below are 45 statements reflecting beliefs, feeling, and behaviors beginning or seasoned principals may or may not possess at a given moment. Please indicate how frequently each statement typically applies to your principal as he/she works with you in school-based staff development, using the codes:

A= Never B=Rarely C=Sometimes D=Often

How frequently does:

___ 1. My principal use a variety of teaching techniques?

___ 2. My principal use buzz groups (learners grouped together to process information from lectures)?

___ 3. My principal believe that his/her primary goal is to provide me as much information as possible?

___ 4. My principal feel fully prepared to teach?

___ 5. My principal have difficulty understanding my point-of-view?

___ 6. My principal expects and accepts my frustration as I grapple with problems.

___ 7. My principal purposefully communicates to me that I am uniquely important.

___ 8. My principal expresses confidence that I will develop the skills I need.

___ 9. My principal search for or create new teaching techniques?

___ 10. My principal teach through simulations of real-life settings?

___ 11. My principal teach exactly what and how they have planned?

___ 12. My principal notice and acknowledge to me positive changes in me?

___ 13. My principal has difficulty getting his/her point across to me?

___ 14. My principal believe that I vary in the way I acquire, process, and apply subject matter knowledge?

___ 15. My principal really listen to what I have to say?

___ 16. My principal trust me to know what my own goals, dreams, and realities are

like?

___ 17. My principal encourage me to solicit assistance from other teachers?

___ 18. My principal feel impatient with my progress?

___ 19. My principal balance his/her efforts between teacher content acquisition and motivation?

___ 20. My principal try to make his/her presentations clear enough to forestall all my questions?

___ 21. My principal conduct group discussions?

___ 22. My principal establish instructional objectives?

___ 23. My principal use a variety of instructional media? (Internet, distance, interactive video, videos, etc.)?

___ 24. My principal use listening teams (learners grouped together to listen for a specific purpose) during lectures?

___ 25. My principal believe that his/her teaching skills are as refined as they can be?

___ 26. My principal express appreciation to me when I actively participate?

___ 27. My principal experience frustration with my apathy?

___ 28. My principal prize my ability to learn what is needed?

___ 29. My principal feel I need to be aware of and communicate my thoughts and feelings.

___ 30. My principal enable me to evaluate my own progress in learning?

___ 31. My principal hear what I indicate my learning needs are?

___ 32. My principal have difficulty with the amount of time I need to grasp various concepts?

___ 33. My principal promote positive self-esteem in me?

___ 34. My principal requires me to follow the precise learning experiences he/she provides to me.

___ 35. My principal conduct role plays?

___ 36. My principal get bored with the many questions I ask?

___ 37. My principal individualize the pace of learning for me?

___ 38. My principal help me explore my own abilities?

___ 39. My principal engage me in clarifying my own aspirations?

___ 40. My principal ask me how I would approach a learning task?

___ 41. My principal feel irritation at my inattentiveness in the learning setting?

___ 42. My principal integrate teaching technique with subject matter content?

___ 43. My principal develop supportive relationships with me?

___ 44. My principal experience unconditional positive regard for me?

___ 45. My principal respect my dignity and integrity?

Appendix E:

Scoring of Instructional Perspectives Inventory: Revised for Teachers

SCORING OF INSTRUCTIONAL PERSPECTIVES INVENTORY
Revised for Teachers
Scoring: A=1, B=2, C=3, D=4

(1)	(2)	(3)	(4)	(5)	(6)	(7)
4 ____	7 ___	1 ___	6 ___	5 ___	2 ___	3 ___
12 ___	8 ___	9 ___	14 ___	13 ___	10 ___	11 ___
19 ___	16 ___	22 ___	15 ___	18 ___	21 ___	20 ___
26 ___	28 ___	23 ___	17 ___	27 ___	24 ___	25 ___
33 ___	29 ___	42 ___	37 ___	32 ___	35 ___	34 ___
Total ___	30 ___	Total ___	38 ___	36 ___	Total ___	Total ___
	31 ___		40 ___	41 ___		
	39 ___		Total ___	Total ___		
	43 ___					
	44 ___					
	45 ___					
	Total __					

Appendix F:

Permission to Use Instructional Perspectives Inventory

College of Education

Division of Educational Leadership
and Policy Studies

One University Boulevard
St. Louis, Missouri 63121-4400
Telephone: 314-516-5944
Fax: 314-516-5942

April 5, 2005

Mr. Arnold Stricker
598 Hwy W
Foristell, MO 63348-1107

Dear Mr. Stricker,

I am pleased that you wish to use my Instructional Perspectives Inventory, in your research study regarding Learning Leadership: An Investigation of Principals' Attitudes toward Teachers in Creating the Conditions Conducive for Learning in School-Based Staff Development. I hereby give you permission to use this copyrighted instrument. I would expect an appropriate citation for the tool in your dissertation or any publications that result from using the tool.

If there is any other way I may help you in this process, please let me know. My best wishes to you in your research.

Most Sincerely,

John A. Henschke

John A. Henschke, Ed. D.

Appendix G:

Respect for Partner Scale-Briefer Scale: Revised for Principals

RESPECT FOR PARTNER SCALE
Briefer Scale

Revised for Principals

The following statements concern how you think about your relationship to your teachers as learners in school-based staff development. Respond to each statement by indicating how much you agree or disagree with it. Write the number in the space provided, using the following rating scale:

1	2	3	4	5	6	7
disagree strongly			neutral/mixed			strongly agree

___ 1. I show interest in my teachers, have a positive attitude, am willing to spend time with my teachers.

___ 2. I do not respect my teachers' views and opinions; insist on my own wishes.

___ 3. I am helpful, supportive, present when needed; try to fulfill my teachers' needs.

___ 4. I am sensitive and considerate to my teachers' feelings.

___ 5. I do not have admirable or respect-worthy talents, abilities, accomplishments.

___ 6. I am not loving; I do not provide unconditional love.

___ 7. I am not open and receptive.

___ 8. I am not nice, kind, considerate.

___ 9. I foster good, open, two-way communication.

___ 10. I am not honest and truthful.

___ 11. I foster mutuality and equality.

___ 12. I am caring, compassionate.

___ 13. I do not have admirable or respectworthy moral qualities (such as dignity, humility, self-control, good judgment, dedication).

___ 14. I calm my teachers, put them at ease, makes them feel comfortable.

___ 15. I follow the Golden Rule (treats others as others wish to be treated, or as the person him/herself would like to be treated).

___ 16. I am cruel or hurtful.

___ 17. I am concerned, protecting.

___ 18. I am not committed to my teachers.

___ 19. I am someone my teachers look up to, am proud of, believe in.

___ 20. I am not understanding and empathic.

Appendix H:

Respect for Partner Scale-Briefer Scale: Revised for Teachers

RESPECT FOR PARTNER SCALE
Briefer Scale

Revised for Teachers

The following statements concern how you think about your relationship to your principal and their attitude toward you as a learner in school-based staff development. Respond to each statement by indicating how much you agree or disagree with it. Write the number in the space provided, using the following rating scale:

1	2	3	4	5	6	7
disagree strongly			neutral/mixed			strongly agree

___ 1. My principal shows interest in me, has a positive attitude, is willing to spend time with me.

___ 2. My principal does not respect my views and opinions; insists on his/her own wishes.

___ 3. My principal is helpful, supportive, present when needed; tries to fulfill my needs.

___ 4. My principal is sensitive and considerate to my feelings.

___ 5. My principal does not have admirable or respect-worthy talents, abilities, accomplishments.

___ 6. My principal is not loving; s/he does not provide unconditional love.

___ 7. My principal is not open and receptive.

___ 8. My principal is not nice, kind, considerate.

___ 9. My principal fosters good, open, two-way communication.

___ 10. My principal is not honest and truthful.

___ 11. My principal fosters mutuality and equality.

___ 12. My principal is caring, compassionate.

___ 13. My principal does not have admirable or respectworthy moral qualities (such as dignity, humility, self-control, good judgment, dedication).

___ 14. My principal calms me, puts me at ease, makes me feel comfortable.

___ 15. My principal follows the Golden Rule (treats others as others wish to be treated, or as the person him/herself would like to be treated).

___ 16. My principal is cruel or hurtful.

___ 17. My principal is concerned, protecting.

___ 18. My principal is not committed to me.

___ 19. My principal is someone I look up to, am proud of, believe in.

___ 20. My principal is not understanding and empathic.

Appendix I:

Permission to Use the Respect for Partner Scale-Briefer Scale

From: Jennifer Frei (Campus College Chair)
Sent: Tuesday, March 08, 2005 7:48 PM
To: 'Stricker, Arnold / CO ADMIN'
Subject: RE: Inquiry on Measure of Respect in Relationships/Respect for Partner Scale from Arnold Stricker

Hi Arnold,

You said you have a copy of the Personal Relationships article - the scale is listed in the appendix, with asterisks marking recommendations for a shortened version. I have used the shortened version in subsequent work with married individuals, and the strong psychometric properties were replicated - however I have not yet published this research. You are welcome to use the scale and adapt it to your sample, assuming citation of the original source. I do not know of research on respect in the principal/teacher teacher/student relationships, but this would certainly be an interesting application. To clarify, we did refer to the measure as the Respect for Partner Scale, or RPS.

I am glad to hear that other researchers are interested in the topic of respect in interpersonal relationships and that it is being applied and studied in a variety of types of relationships. I wish you well with your project.

Jennifer

Jennifer R. Frei, Ph.D.
Chair, College of Health and Human Services
University of Phoenix, Sacramento & Bay Area Campuses
2890 Gateway Oaks Dr., Suite 100
Sacramento, CA 95833
1-800-266-2107, Ext. 61253
Direct: 916-286-2853
FAX: 916-648-9131
JenniferR.Frei@phoenix.edu

-----Original Message-----
From: Stricker, Arnold / CO ADMIN
Sent: Tuesday, March 08, 2005 3:52 PM
To: Jennifer Frei
Subject: Inquiry on Measure of Respect in Relationships/Respect for Partner
Scale from Arnold Stricker

Dr. Frei,

I am interested in the Measure of Respect in Relationships/Respect for Partner Scale listed on a webpage from UC-Davis. I'm not quite certain of the name of the instrument as I have two different groups of information. I do have a copy of your work with Phillip Shaver from the Personal Relationships journal. My research deals with the role of the learning leader (principal) in creating the conditions for learning in school-based staff development. I would like to measure the principal's trust and respect level of staff and staff's trust and respect level of the principal. I have an instrument that will measure trust but I am working on one that will measure respect also. I am aware from the webpage that your measure is for those involved in

romantic relationships/close relationships or previously in a romantic relationship/close relationship. Have you done any research outside of that area similar to what I mentioned above (relationship between teacher/student, principal/teachers, etc.)? If not, would your scale be applicable or adaptable to relationships other than those involved in romantic relationships? If it is applicable or adaptable, how would I go about seeing the scale and supporting information? If it would be able to be used in my research, would permission be given to use the measure?

Thank you in advance for your time.

Arnold Stricker

Appendix J:

Demographic Information

DEMOGRAPHIC INFORMATION
Please circle one answer for each question.

1. My age:
   a. 20-29
   b. 30-39
   c. 40-49
   d. 50-59
   e. 60+

2. My gender is:
   a. Female
   b. Male

3. Building level as teacher or principal:
   a. Pre-K
   b. Elementary (K-6)
   c. Middle School (7-8)
   d. High School (9-12)

4. Number of years as teacher or principal:
   a. 0-5
   b. 6-10
   c. 11-15
   d. 16-20
   e. 21+

5. Highest degree I have earned:
   a. Bachelor's
   b. Master's
   c. Specialist
   d. Doctorate

Please circle all that apply for the next question.

6. My formal and/or informal exposure to Adult Learning concepts was received from:

   a. No exposure
   b. Reading in a book or journal article
   c. Bachelor's Level College/University course
   d. Master's Level College/University course
   e. Doctorate Level College/University course
   f. Workshop on Adult Learning
   g. Conference on Adult Learning
   h. Mentor
   i. Observation
   j. Professional Dialogue
   k. Reflection
   l. Gut feelings about what I ought to do as a teacher/principal

7. What are adult learning principles as far as you are concerned?

_____

_____

_____

_____

_____

Appendix K:

Office of Research Administration Approval Form

University of Missouri St. Louis

OFFICE OF RESEARCH ADMINISTRATION

Interdepartmental Correspondence

Name: Arnold Stricker

Title: Learning Leadership: An Investigation of Principal Attitudes Towards Teachers in Creating the Conditions Conducive for Learning in School-Based Development.

The chairperson of the Human Subjects Committee for UM-St. Louis has reviewed the above mentioned protocol for research involving human subjects and determined that the project qualifies for exemption from full committee review under Title 45 Code of Federal Regulations Part 46.101b. The time period for this approval expires one year from the date listed below. You must notify the Human Subjects Committee in advance of any proposed major changes in your approved protocol, e.g., addition of research sites or research instruments.

You must file an annual report with the committee. This report must indicate the starting date of the project and the number of subjects to date from start of project, or since last annual report, whichever is more recent.

Any consent or assent forms, must be signed in duplicate and a copy provided to the subject. The principal investigator must retain the other copy of the signed consent form for at least three years following the completion of the research activity and they must be available for inspection if there is an official review of the UM-St. Louis human subjects research proceedings by the U.S. Department of Health and Human Services Office for Protection from Research Risks.

This action is officially recorded in the minutes of the committee.

Protocol Number	Date	Signature - Chair
050421S	4-21-05	Carl J Dassi

Appendix L:

Comments Principals and Teachers on the Question: What are adult learning principles as far as you are concerned?

Comments from Principals and Teachers on the Question:
What are adult learning principles as far as you are concerned?

Principals' Responses

1. The principles that drive adult learning are respect for life's experiences, background, degree of education, and that persons' degree of commitment to their job or the program.

2. Providing staff with the learning resources and tasks they need in order to create a successful learning environment. Provide staff with information/knowledge regarding trends toward successful learning climates. Provide a climate that is conducive toward acceptance, fairness, receptive, expressive and open to differences in individuals and learning levels.

3. Learning using past experiences, having & giving self-respect, using goal-setting procedures, feeling comfortable and confident with self, humor, not needing to be "the leader", sharing, not having to be right every time.

4. a. Collaboration with staff on school wide problems, b. Encourage staff to attempt to use new techniques and strategies, c. Support staff on their commitment of constantly searching for a better way of teaching and learning.

5. Learning should focus on goals; build on life experiences while promoting self-worth in a supportive environment.

6. Involving adults actively, in the learning process as they are seeking to learn information that is relevant to them. Adults seek autonomy and want input into what they are expected to do. Respect of their knowledge and life experiences helps to motivate as does a desire to be heard and treated with equality. Motivation, reinforcement, retention, transference.

7. Expose adults to as many different learning options as possible, continue to support and motivate, provide lots of praise, use other staff that is highly respect by co-workers to role model, always have open communication & dialogue.

8. Adult learners are goal oriented, knowledge & experience of the adult learner should be respected and utilized in continuous learning, adult learners must see the relevance or reason for learning something, it is important to show the adult learner how to apply new concepts to their daily routine (transfer of learning).

9. Principles of "what works" for adults to learn.

10. a. Be honest as to why information needs to be learned and how it is going to be use, b. Never talk down to your learner no matter what level they are beginning at, c. Never add useless information just to show how smart you are.

11. Optimal adult learning occurs when the information presented is adequately organized around the adult's previous knowledge & experience. Each adult has a different quantity & quality of experience, each engages in learning from a distinct starting point. The more meaningful the instructional activities & materials, the easier it will be for adults to learn.

12. Adults, like children, need immediate practice to learn and develop a new skill. Adults need to see a clear benefit before or while acquiring new information. Adult learners need feedback and follow-up coaching.

13. Someone who is driven by specific goals, learning continues constantly; tie what is being taught with life experiences.

14. Internet. Knowing how adults learn best will aide in how you deliver the information. Aspects you must consider when delivering the information are: adults tend to be self-directed, have an abundance of knowledge from life experiences, are goal oriented, are practical & strive/benefit when shown respect. There are four critical elements of learning that must be addressed when teaching adults: motivation to learn, reinforcement, retention & transference. Adults learn best if they are interested & feel they will benefit from the information.

15. To make your employees happy and productive in the workplace. Foster a climate conducive to success to maximize the potential of your employees.

16. Lessons learned & ideas formed through life experiences & knowledge gained through education.

17. Adult learning principles are those that encourage professionals to continue to keep current as far as knowledge of their area of profession, self-improvement, and promotes constant learning.

18. Principle's designed so that adults take in as much info as possible & retain the info while maintaining a positive attitude toward the learning process.

19. Adult learning principles are those that help adults learn. It's what motivates the adult to want to learn & interact, with others & their environments.

20. I believe that change is hard for adults and learning new concepts brings about change. I believe that in working with adult learners, a person must try to alleviate the stress of change b y providing resources, guidance, and research. Adults seem to be harder to convince and need data to be convinced why a particular concept and/or strategy is better than the one they are using. Action research should also be a part of adult learning.

21. All must continue to learn - explore - grow as learners to become better

administrators, teachers, learner, and people.

Teachers' Responses

1. I feel that adult learning principles are treating others as you wish to be treated along with educational background, degrees earned and responsibility to the job served.

2. Learning and applying knowledge that is useful and practical. The teacher of adult learners needs to practice skills of mutual respect while fostering positive attitudes for the learner.

3. In teaching - success for every student. Principles in art, applying art to life: other courses in school. Follow the rules - but each child is an individual.

4. I believe that adult learning principles begin in the home. When taught good moral/social values at a young age good principles will immediately fall into place.

5. a. Information should be given in many different ways, b. Objectives should first be given to the learner, c. Information taught should be relevant and current, d. Give respect to the learner. A mutual respect is important.

6. Principles that define the variety of learning styles in which individuals process and recall information.

7. I believe teachers should be life long learners and continue to be involved in professional development activities that benefit and enhance their teaching style. Workshops, conferences, & professional journals keep teachers up to date on current trends and practices to improve our teaching.

8. Don't know.

9. Adult learning principles are abilities/skills that enable professionalism. Learning skills for coping in social situations and developing more educationally.

10. The ways in which adults learn.

11. The continuation of the learning experience as an adult with technique specifically devised for the mature student.

12. I believer adult learning principles relates to how adults learn from each other as far as teaching and learning strategies are.

13. Information acquired to help you improve on a personal and professional level.

14. In education: 1. Study group concept-learning communities, 2. Divide & conquer/becoming an "expert" on one aspect of what is to be learned & sharing it,

then learning from other "experts", 3. Observations of "model" teachers, 4 Making changes in teaching based on feedback from students, parents, administrators/data, 5. Always be willing to learn something new.

15. I am not familiar with the term. I researched the topic and feel that it fosters a learning process in which people are continuously learning through their environment, experiences and self-motivation.

16. Providing the content information in an interesting way using a variety of techniques. This teaching needs to be done in way that doesn't belittle the adult learner.

17. Understanding how adults learn.

18. I have no idea what "adult learning principles" are or how my principal is connected with that concept.

19. How adults grow, change, learn through formal & informal channels, personal experience & daily encounters with others.

20. Setting goals and objectives that create optimal learning experiences and growth and promote a safe and secure learning environment for all students and teachers.

21. I assume that we, as adults, have the same learning styles as our students. The principal needs to accommodate the variety of styles when addressing her staff.

22. Adult learning principles are the information that humans gather and process to form their own adult opinions and beliefs. These are then presented to others through actions with other people in various situations.

23. I do not know what adult learning principle are. I would assume they would be the same as for children.

24. To treat everyone with respect. To make others feel confident and successful in their abilities.

25. Style and approach regarding teaching and learning concepts as effectively as possible.

26. The supervisor working/teaching/training their staff. The supervisor treating their staff with dignity, compassion & support while accomplishing their goal.

27. Motivation is key. Adults, like children, work best when they are treated with respect and are accepted for their individuality. A variety of learning techniques work best to meet individual learning styles. The learner should be allowed to experiment and learn what works best for them.

28. I'm not sure how to answer this.

29. I do not know for sure. I am assuming it is a concept of leadership styles of principal/faculty relationships.

30. Adult learning principles are the characteristics that are necessary for the motivation and successful instruction of adult learners.

31. These principles, as I am familiar with or not familiar with, are methods and varieties used as instructors learn and understand new techniques for teaching and learning. The principles are brought forward to teachers from the principal and professional development activities. They define how professionals learn best which affects mastery of new programs and information.

32. As far as I am concerned, adult learning principles refer to the methods in which we take in, process, and apply information. I feel it can also refer to how adults learn - visually, hands-on, etc.

33. Creative teaching styles, treating all people with respect & kindness, being honest regardless of outcome. I believe adult learning principles are taking those 3 things & applying them to all aspects of life, whether it be your personal or professional life.

34. Ideas that are put into actions that promote a positive/productive learning/working environment for staff & also students.

35. Our learning about our profession does not stop when we complete a degree. We continue to learn new and interesting ways to better what we do, and we do that through a variety of sources

36. Providing opportunities for: knowledge acquisition/application through a variety of teaching techniques (i.e., simulations, role plays, assistance from others, group discussions, etc.); open, 2-way communication; reflection; in a setting that addresses the learner as a whole (head & heart).

37. Respect for opinions; keep personal opinions out of workplace; open dialogue between parties; accept positive feedback or constructive criticism maturely; openness for change/new ideas, methods, approaches, etc.; sincere effort to absorb what is being taught and application to personal situation.

38. Respect for the learner; supportive attitude toward the learner; communication between the adult learner & teacher; confidence that the learner can learn material; evaluations between the adult learner & teacher.

39. Adult learning principles are the characteristics that adult learners bring to the learning setting that are different from those of other age group i.e., autonomy, life experiences, goal oriented.

40. Adult learning principles as far as I am concerned are continuously growing and expanding knowledge in my field. Another principal is to always self evaluate and to acknowledge where you need improvement.

41. I'm really not sure. I think I would need some e clarification of the question. I believe that any adult in any field should strive to be a life-long learner, to always better oneself personally & professionally.

42. I don't know.

43. Not sure exactly what this means. I think it means continuing to learn as an adult. We all continue to learn - it is important to strive to better ourselves.

44. The principles that involve the acquisition of organized knowledge; development of intellectual skills and skills of learning; and finally the enlarged understanding of ideas and values. Goals of education - means to goals - areas, operations and activities that lead to success in and out of the classroom.

45. I filled out the 1st portion based on our school PD days often times outside speakers are brought in so I am not sure that all questions fit my experience often times my principal is sitting with us during presentations instead of leading the presentations.

46. Learning ways of respect, self control, good judgment and dedication. This can apply to self and how a person interacts with others. They can be guidelines for adults to follow during everyday situations, whatever they may be.

47. To treat others the way you would want to be treated. Watch and learn from others.

48. I think you need to be proactive in your continued growth as an educator. I also think you should keep an open mind toward new ideas and teaching practices and not get set in your ways.

49. I feel that adult learning principles are the values or techniques and foundation that you use in your daily lessons and plans.

50. Internet search. It's a new area of study pioneered by Malcolm Knowles. Here are the characteristics: 1. adults are autonomous & self-directed, 2. adults have life experiences & knowledge, 3. adults are goal-oriented, 4. adults are relevancy-oriented, 5. adults are practical, 6. they need to be shown respect.

51. Keeping an open mind, continued learning - never stop learning new skills, good communication - listening to others as well as mentoring other

52. Education is a lifelong process. Each of us learn in many different ways.

53. I believe adult learning principles are similar to the "Laws" of learning. Law of Readiness, Law of Exercise, Law of Effect, Law of Intensity. I think that basic knowledge of adult learning principles is essential to a teacher/supervisor, as in an understanding of characteristics & "laws" of adult learning, an understanding of how to develop learning objectives & strategies. Effective learning does not simply occur; it must be planned & nurtured who understands.

54. Clear statement of objectives, varied styles of presenting in formation, setting or assisting a student to set high goals and helping that person to reach those goals, allowing student to apply material learned.

55. These the ways adults learn best. They don't need as much motivation or direction. They know how to process the information and what works best for them.

56. My understanding of adult learning is learning through group discussions and sharing of experiences - successful and failures. Learning through a collaborative effort and process.

57. Those principles which an adult follows during learning. How an adult learns about improving his or her professionalism.

58. I feel adult learning principles are those principles held by educators that guide the way we teach our students and run our classroom on a daily basis.

59. Workshops=Developing communication skills between parents and teachers, counseling/behavior management skills, reading assisting the at-risk students.

60. To improve my job skills through classes, observations and working/sharing with colleagues.

61. I see adult learning as a required (not optional) process by which we constantly change to remain a productive, successful, and happy part of the world around us. This (learning) can happen as a result of experiences, formal education, reflection, and even spiritual level activities.

62. The techniques or methods used to insure learning in adult students.

63. Communication skills, life skills, parenting skills

64. Adult learning principles are guidelines that help us to be better people, colleagues, and friends. We should utilize concepts learned, and treat others as we wish to be treated.

65. Internet search. Adult learning=I look for learning that is applicable to my life/job as well as interesting. Things I learn now must be proven to work otherwise I feel my time has been wasted. The topic covered must also help better me as a teacher.

66. Teaching adults to be more successful at what they do.

67. a. Best practice learning techniques that work with you often work with adults. Examples: 1. Most established rules of conduct i.e., cell phones, attendance, expectations, 2. Cooperative Learning, 3. Researching and presenting to peers i.e., (we learn best when we teach others), 4. Draw on interests & experience; b. Must be relevant and applicable to real life situations; c. Learn through multiple modalities & reflection; d. Presenters must be aware of pace, get feedback be aware of adult fatigue, female socialization; e. Two-way dialogue is necessary, not just lecture meetings; f. If large staff meetings aren't working, divide & conquer.

68. Adult learning principles are the competencies necessary to foster an environment of learning: empathy, respect, active listening, etc.

69. Read all material you can find on subject interested in for advancement. Process through and sort what works for you. Share information and discuss with co-workers. Learn from your mistakes and successes. Finally, be willing to change and adapt.

70. I haven't been exposed to Adult Learning concepts so I can't identify adult learning principles.

71. Staying current with my subject area being aware of current events.

72. Treat staff/students fairly, be an effective communicator, rise to a challenge, be a motivator.

73. The principles that adults use to be effective in their position in regards to skill, working with others, being an exemplary example, and continuing to improve mentally, physically and spiritually.

74. I am not sure what they are. However, my interpretation would lead me to believe that adult learning principles are concepts that define the way professionals interact and learn from each other in a professional environment.

75. Adult learning principles are knowing how adult learn an applying that knowledge to how one interacts and presents knowledge to other adults.

76. Adult learning principles are problem-solving strategies a person uses in everyday life concerning every aspect of his or her life.

77. Adult learning principles are positive statements that a teacher believes, follows and applies in a school setting with fellow staff members and students.

78. They are very similar to principles for children. Ideally, everyone should be given

respect & encouragement for different learning styles & a multiple-intelligence approach used. High expectations plus a real need for the learning & a fundamental respect for student, teacher, & subject will result in authentic learning.

79. The ability to teach adults in a way that is conducive to their social environment; mental make-up and cognitive capability.

80. Learning provides improved quality of life for the needs assessed/evaluated by the learner. A skill obtained to reach mastery of new improved skills. Reflection of what you think you know: verses the reality of the related learning experiences are telling you a different and conflicting version.

81. I feel they are principles that help adults learn the most effectively. This could include group learning, one-to-one, workshops, etc.

82. Adult learning principles are based on tailoring a learning program that meets the individual adult's needs in order to increase his development through the learning process. The idea is to try to make the adult as successful as possible through education & self-development.

83. I am not sure I've been exposed to these principles.

84. Socialization does not end when childhood ends, and neither should learning. Adults have more complete brains, which means learning new material is more difficult. Connections within existing info is necessary, and connections between acquired pieces of information can be made.

85. The sharing of information in a professional manner - without confusion, condescension or lecturing.

86. Think about your approach to teaching - think about the process of learning, the intentions as to what learners should learn, actions and techniques to enable learning, and perspectives on teaching. Consider content you want learned and context within which it will take place - think about contrasting perspectives - does knowledge take place!

87. Learning styles are established early in our lives. As adults, we are most successful if we take the information and transform it to comply with our own learning style. I believe adult learning principles are an adaptation that each person makes in their own lives to cope, therefore adult learning principles are really mutations of oneself.

88. Adult learning principles are those that can be applied and integrated into our lives and classrooms to get the most out of those we come in contact with.

89. Golden rule. Never stop learning.

90. Continuing to learn & reflect as you encounter new information.

91. As "Super Nanny" says, it's ALWAYS the parents' fault. So it is with teaching. If students are not accomplishing the goals set for them, the responsibility lies with the staff and administration. They must develop the skills necessary to lead and teach 'em in such a way that fosters success.

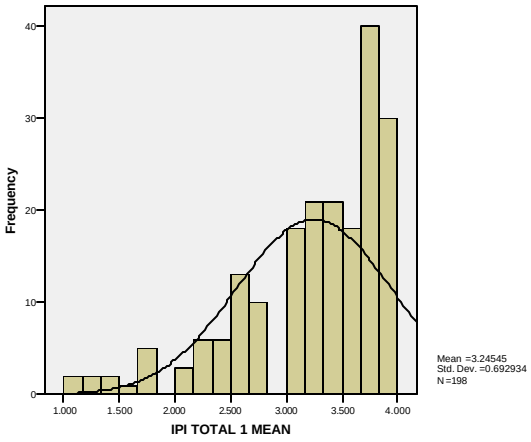
92. Understanding the various concerns, needs, and learning styles of adults. Helping adults learn is different than helping children/adolescents learn.

93. Practices/methods/principles that help guide in decision making, or assisting others to be successful. Methods or learning practices that aid adults in developing academically and socially to function better in society.

Appendix M:

Histograms of Dependent Variables

Histograms of Dependent Variables



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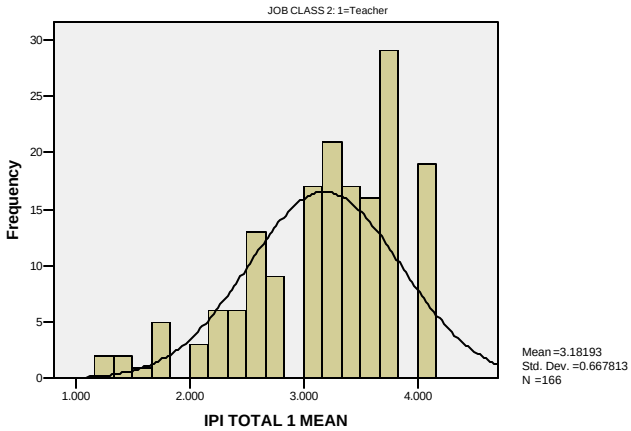

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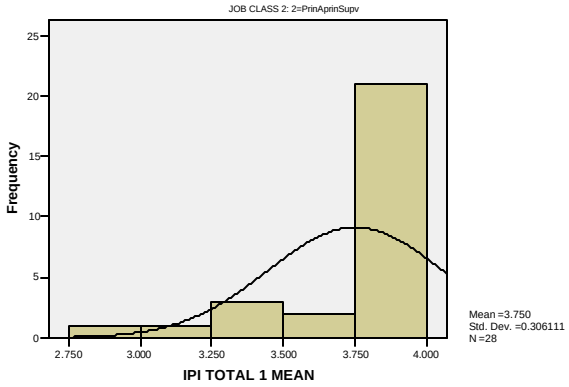

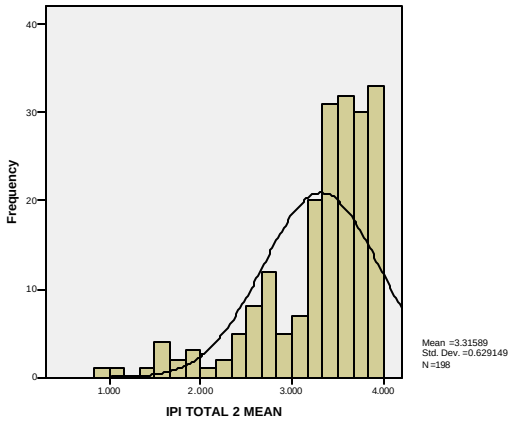

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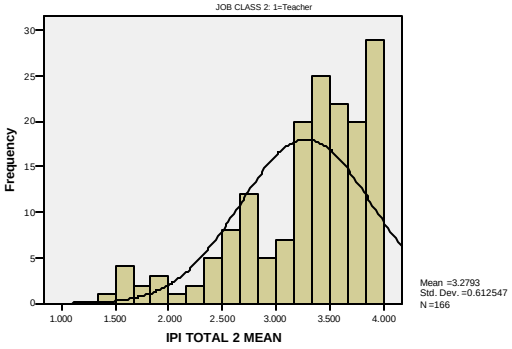

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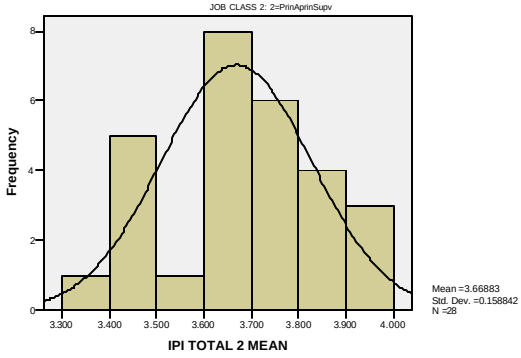

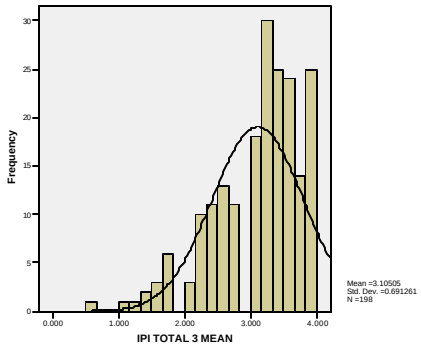

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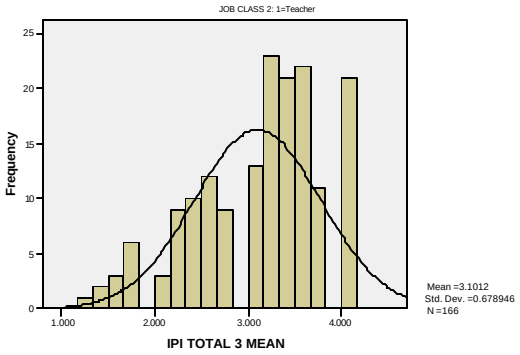

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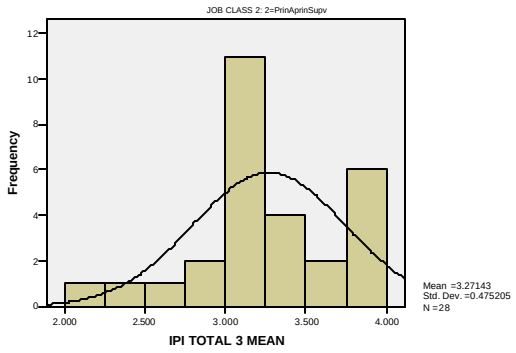

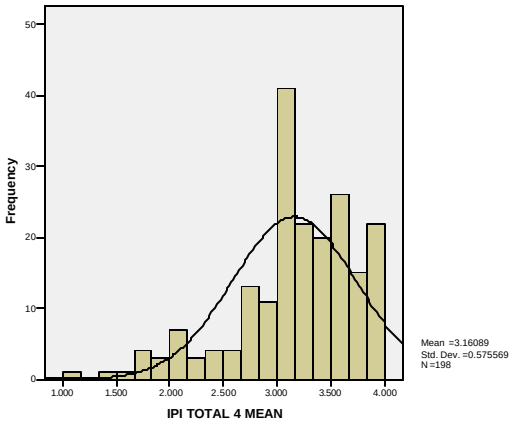

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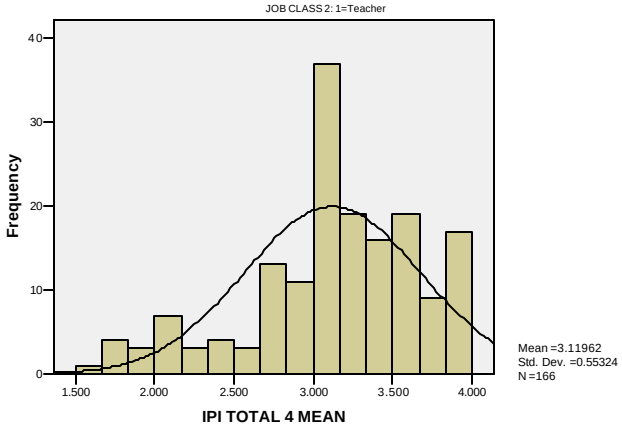

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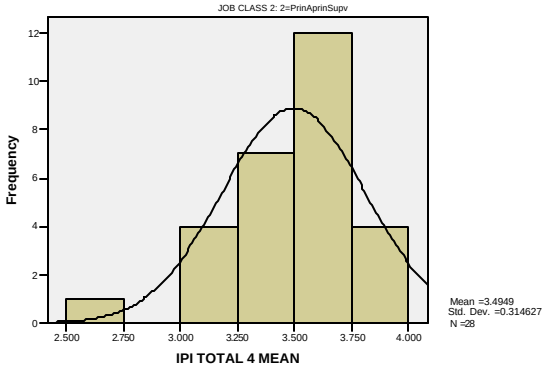

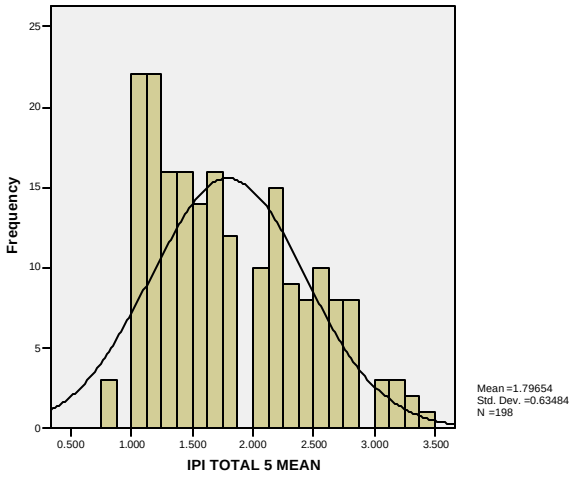

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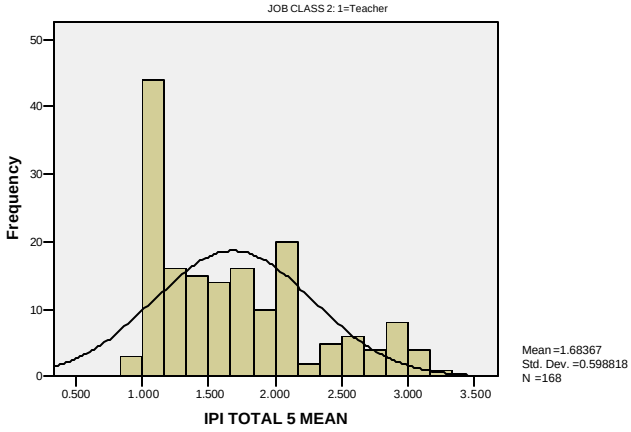

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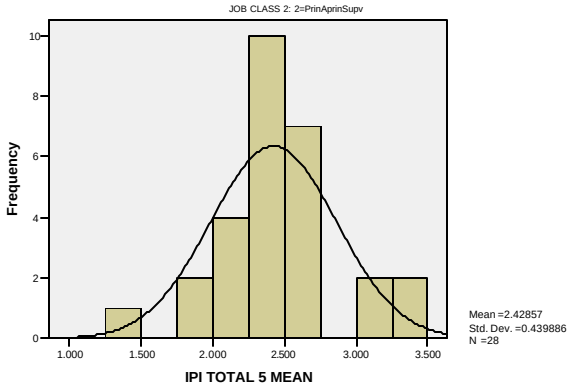

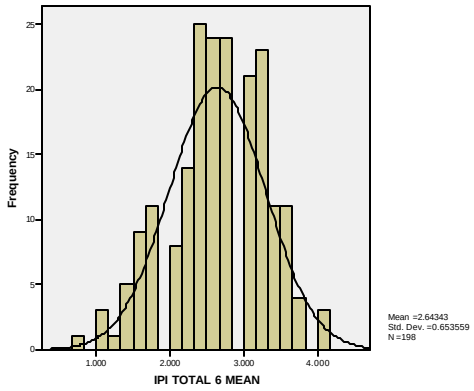

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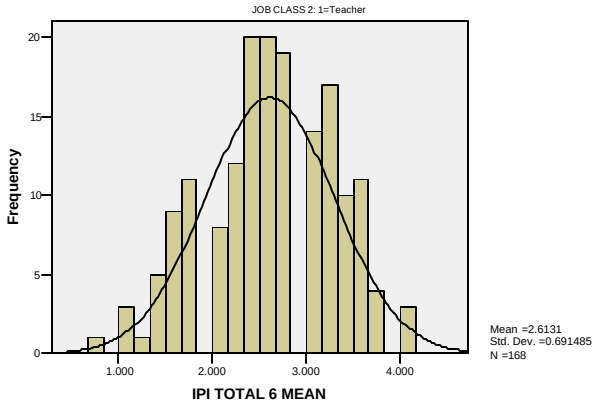

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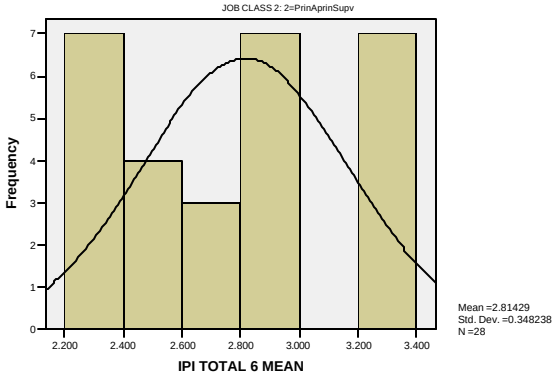

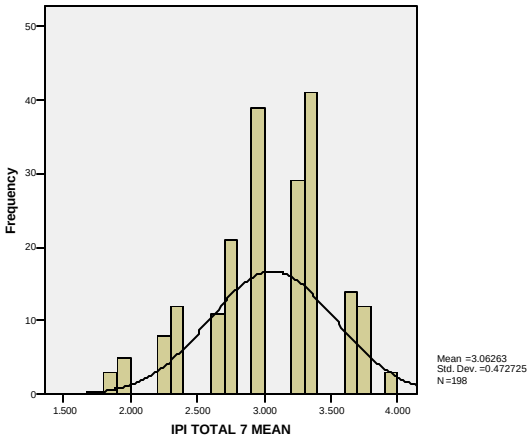

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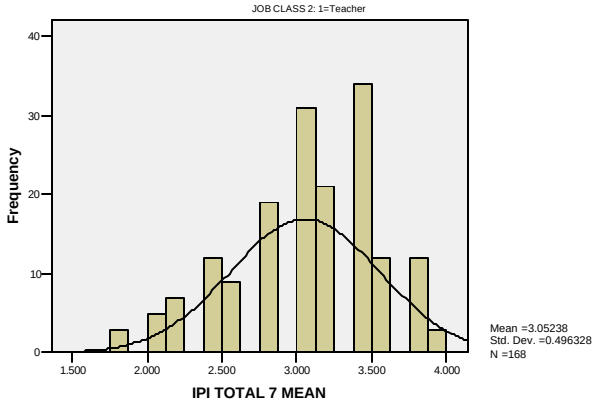

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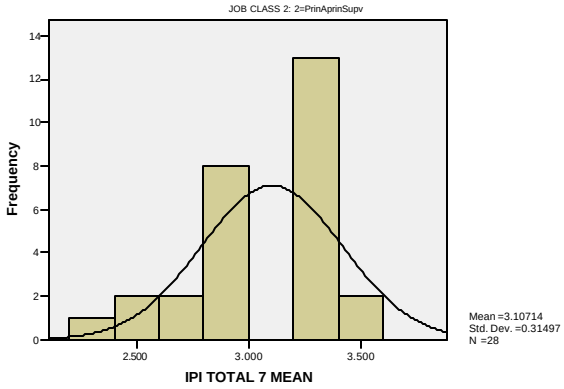

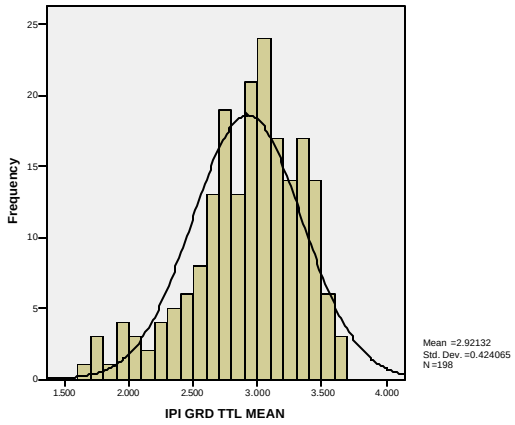

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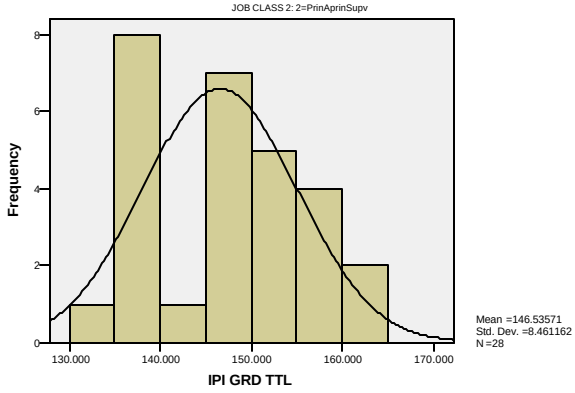

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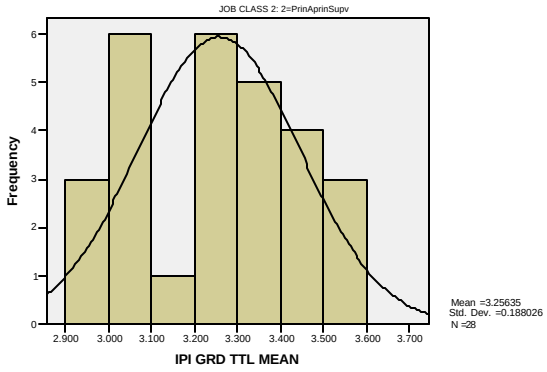

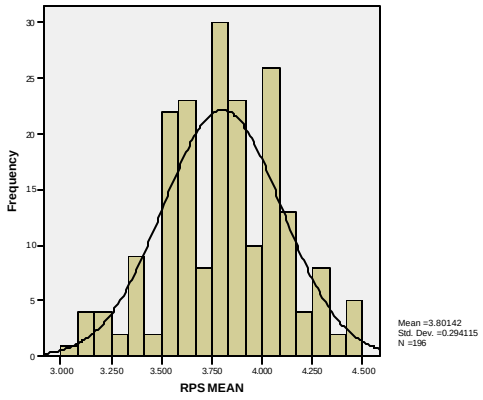

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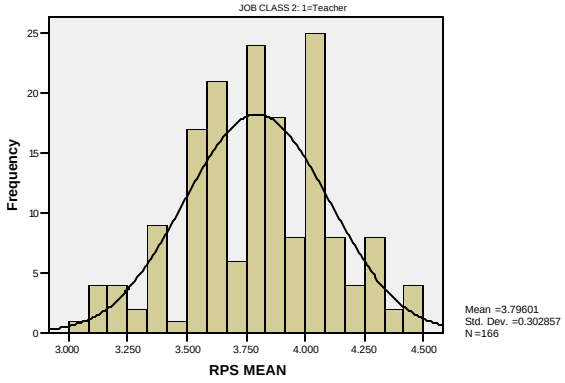

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