INSTRUCTIONAL MANAGEMENT PROFILES: THE RELATIONSHIP BETWEEN TEACHING STYLES, GRADE LEVEL PREFERENCES, AND RELATED FACTORS

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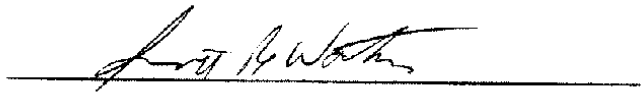
COMMITTEE MEMBERS 

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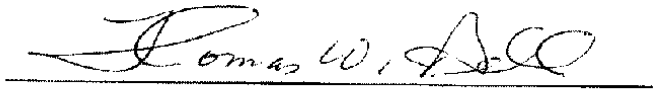

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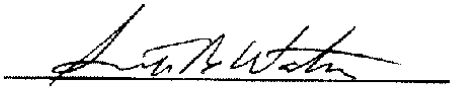
ASSOCIATE DEAN, GRADUATE STUDIES 

Scott B. Watson, Ph.D.

Abstract

Amy McNaughton. INSTRUCTIONAL MANAGEMENT PROFILES: THE RELATIONSHIP BETWEEN TEACHING STYLES, GRADE LEVEL PREFERENCES, AND RELATED FACTORS. (Under the direction of Dr. Leonard W. Parker) School of Education, March, 2007.

This study explored the relationships between age level characteristics and complementary instructional management styles. The data gathered from published materials provided the information for the research survey questions on teaching styles and age level characteristics. The data gathered from teachers who are currently in the field provided the basis for determining there is a relationship between PreK-8 teachers' instructional management profiles and their preferences for teaching either lower (PreK-3) or upper (4-8) elementary grade students. Together, published information and survey results indicated that: (1) different instructional methods are more developmentally appropriate for different ages of learners; (2) teachers have natural preferences for particular management styles; and (3) there are distinguishing instructional management styles between teachers who choose to teach at lower grade levels (PreK-3) and those who choose to teach at upper grade levels (4-8). The researcher used two survey instruments to measure teachers' instructional management styles and their grade level preferences. The Chi Square analysis of grade level preferences by instructional management styles was significant, indicating the proportion of teachers in the four instructional management styles who preferred to teach lower elementary students differed from the proportion of teachers who preferred to teach upper elementary

students. The results of the research indicated that educational leaders could use the survey instruments to predict satisfaction for teachers and effective teaching for students. Other research suggested that teachers who teach grade levels of students that generally match their natural instructional management styles would likely enjoy greater job satisfaction, which, as a result, may lead to more effective teaching and longevity in the classroom. Based on the data obtained from research and the survey of teachers' instructional management styles and grade level preferences, pre-service teachers can make informed career decisions.

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First of all, thanks be to God who is the Author of all things, including individual personalities and styles of teaching. God is also the Master Teacher who accommodates each of us at our life-stage of learning and leads us in intellectual and spiritual growth and development. Without Him, the adventure of higher education would not be possible.

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CHAPTER I

Introduction to the Study

Ary, Jacobs, and Razavieh (2002) wrote, "Beginning researchers will do well to look at . . . . what's *likely to happen*" (p. 48) in schools. On June 29, 2006, the Pennsylvania Department of Education proposed that instructional certificates for elementary teachers issued on or after January 1, 2012, be either in early childhood (pre-kindergarten to third grade) or elementary/middle school (fourth through eighth grade). Currently, Pennsylvania elementary teaching certificates are issued for teaching in grades K-6. With the new legislation, teachers will be issued certificates for a narrower range of grade levels. Pre-service teachers will be required to choose their career path early in their college program. Some pre-service teachers are not certain which trek to select. Could an instructional management tool help pre-service teachers make an informed choice based on grade level preferences of teachers with matching instructional management profiles who are already in the field? The writer predicts the instructional management tool can affect educational practice.

The purpose of this dissertation was to explore the relationships between age level characteristics, complementary instructional management styles, and other related factors. Child development theorists provided insight to age level characteristics. Child development theorists used frameworks to explain and predict aspects of development in children and adolescents. In the 1950s, Robert Havighurst formulated the developmental-task theory (Thomas, 1992, p. 79). His framework for explaining and

predicting the development of children and adolescents consisted of a series of developmental tasks at which individuals worked and were successful as they moved from one stage of development to the next (Thomas, p. 78). Thus, the successful completion of certain developmental tasks was foundational for success in certain subsequent developmental tasks.

The general frameworks of developmental stages gave guidelines to teachers and parents for defining developmental tasks and for types of behaviors that can be expected of children at various age levels. Many practitioners (e.g., Askew, 1985; Clark, R., 1984; Salot & Leavitt, 1965) used the developmental-task theory to describe stages of development for children at specific ages and grade levels. The developmental-task theory was applied to the improvement of school curricula (Thomas, 1992, p. 88). Curriculum writers sought to match subject content and activities with the developmental tasks appropriate for children at different age levels (Thomas, p. 88). Havighurst's theory of developmental tasks was foundational for generalizations about children's age level characteristics because it helped those who worked with children to know general characteristics of children at certain age levels (Havighurst, 1972, p. 8).

Age level characteristics may coordinate with learning styles (Barbe & Milone, 1981, p. 378; Wilson, 1998, Walter Barbe, Michael Milone, and Raymond Swassing section, ¶ 2). Learning styles may change because of life experiences or the type of subject matter studied (Delahoussaye, 2002). Lemire and Gray (2003, Implications section, ¶ 4) stated that learning styles indicated tendencies that may be modified by the situation or intentional choices. Although students demonstrate a relatively stable

learning style preference over time, that preference can change (Delahoussaye; Harrison, Andrews, & Saklofske, 2003, What Can We Conclude section, ¶ 2).

Learning styles and teaching styles have been shown to be closely interrelated (Fischer & Fischer, 1979, p. 251). Teaching styles are patterns of behaviors carried out by instructors in the classroom (Galbraith & Sanders, 1987, p. 170; Gregorc, 2006). Teaching styles encompass what classroom routines the teachers establish, how the teachers choose to arrange the room, how the teachers use class time, and what teachers do to enable pupils to develop as individuals (Martin & Baldwin, 1993, p. 5). Teachers' instructional methods differ for various reasons including the kind of learning experiences students value, and the student's age, gender, and stage of development (Brown, B., 2003, p. 4).

Teachers are leaders in the classroom (Suleiman & Moore, 1997, pp. 9-10). A leadership style is the behavior pattern a person uses to influence the activities of others and involves a combination of task and relationship (Hersey, Blanchard, & Johnson, 1996, p. 134). Hersey and Blanchard's Situational Leadership Model (1969) is based on two dimensions of leadership, namely, supervision of task (or direction) and relationship (or emotional support). Although the Situational Leadership Model was designed for the business community, it has applications for classrooms (Hersey, Blanchard, & Johnson, pp. 220, 364). Grade school teachers are responsible for the content and process of learning (Robles, 1998, p. 5). This includes both the task of directing learning and the relationship or emotional support for learning. In the Situational Leadership Model, teachers adjust the amount of task direction and emotional support to meet the needs of their students.

Based on child development theory, students who are approximately the same age in particular grade levels share similar characteristics (Askew, 1985, pp. 8-9; Association for Supervision and Curriculum Development, 1950, p. 85; Clark, R., 1984, pp. 7-28; Havighurst, 1972, pp. 8-35; Salot & Leavitt, 1965, pp. 3-4). If students in the same grade level function developmentally in similar ways, are different instructional methods more developmentally appropriate for different age levels? Are different instructional methods more developmentally appropriate for different age levels, if students in the same grade level function developmentally in similar ways? Although teachers adapt their teaching style to accommodate learners at various grade levels, do they have a natural preference for using a particular management style? Analyzing age level characteristics and instructional management styles provided insight for the answers to these questions.

Statement of the Problem

By 2012, pre-service teachers in Pennsylvania will have to choose their certification trek within the first year of their admittance to the education program at their college. Pre-service teachers might make this choice prior to classroom observations and experiences that shape preferences for grade levels. If research indicated that teachers with similar teaching styles had similar grade level preferences, pre-service teachers could use the research results to make informed choices of career treks based on matching teaching styles. Thus, the research problem led to the research question: Is there a relationship between PreK-8 teachers' instructional management profiles and their preferences for teaching either lower (PreK-3) or upper (4-8) elementary grade students?

Purpose of the Study and Research Questions

The purpose of this dissertation was to explore the relationship between age level characteristics, complementary instructional management styles, and other related factors including current grade of instruction, gender, satisfaction, subject area, and years of experience. The analysis of the teaching profiles and grade level preferences relationship involved the following research questions:

1. Are different instructional methods more developmentally appropriate for different age levels, if students in the same grade level function developmentally in similar ways?
2. What are the distinguishing instructional management styles between teachers who choose to teach at lower grade levels (PreK-3) and teachers who choose to teach at upper grade levels (4-8)?
3. Do other factors correlate with instructional management styles (i.e., current grade level of instruction, gender, satisfaction with teaching, subject area of instruction, and years of experience)?
4. Although teachers use different instructional management styles, do they have a natural preference for a particular management style?
5. Could an instructional management tool help pre-service teachers make an informed choice based on grade level preferences of teachers with matching instructional management profiles who are already in the field?

Definitions of Key Terms

PreK-8 teachers surveyed included regular classroom teachers, substitute teachers, and teachers of special areas such as art, music and physical education. The Pennsylvania teachers surveyed were from Christian, private, and public school settings.

Public School Districts contacted included the following: Boyertown, Coatesville, Downingtown, Great Valley, Methacton, Norristown, Owen J. Roberts, Perkiomen Valley, Phoenixville, Pottsgrove, Pottstown, and Spring-Ford. Of the 12 public school districts selected, six were in suburban areas, three were in rural areas, and three were in small urban areas. The superintendents of Coatesville, Norristown, Downingtown, and Perkiomen Valley declined participation.

Private Schools contacted included the following: Bethany Christian School, Bethlehem Christian School, Delaware County Christian School, Grace Assembly Daycare, Montgomery School, Penn Christian Academy, Renaissance Academy Charter School, West-Mont Christian Academy, and Zion Lutheran Preschool. The schools were in suburban, urban, and rural settings. All private schools, except Montgomery School, participated.

Two instruments were used to measure the relationship between profiles and preferences. Parker's FIRESIDE Instructional Management Profile (2006) was used to identify instructional management profiles (see Appendices A and B). McNaughton's Grade Level Preference Survey (2006) was used to identify grade level preferences (see Appendices C and D). Regarding the validity of the instruments, Ary, Jacobs, and Razavieh (2002) wrote that to measure constructs such as attitudes, begin "by selecting observable tasks believed to serve as indicators of the particular theoretical construct" (p.

243). The survey questions that were developed for teachers' preferences for instructional styles (Parker's FIRESIDE Instructional Management Profile) and their preferences for grade levels (McNaughton's Grade Level Preference Survey) were based on observable tasks as documented by various researchers. The documentation that supports the construction and validity of the instruments is included in Appendices B and D. In order to assess the reliability of the instruments, 30 pre-service teachers completed the assessments. Measures of internal consistency came from splits of the test administered once. Cronbach's alpha was used to determine the reliability coefficient for both instruments. The reliability coefficient for Parker's FIRESIDE Instructional Management Profile was 0.74, and the reliability coefficient for McNaughton's Grade Level Preference Survey was 0.97, both of which are considered acceptable for indicating reliability. (See Appendix E for more information regarding the reliability of the assessments.)

Relevance of the Study for the Field of Education and Educational Leadership

Research suggests that teachers will likely enjoy greater job satisfaction when they teach students who generally match their natural instructional management preferences, resulting in more effective teaching and longevity in the classroom (Canfield & Canfield, 1988, p. 24; Marth & Newman, 1993, p. 4; Stitt-Gohdes, Crews, & McCannon, 1999, ¶ 5; Thornton, Peltier, & Hill, 2005, pp. 489, 494). The research results can benefit future teachers by matching pre-service teachers' teaching styles with grade level certification treks. Also, an educational leader can use teaching style/grade level preference patterns to identify teachers who are frustrated or challenged in the

classroom because they are teaching in a grade level that is a mismatch for their teaching style (Liesveld & Miller, 2005, p. 53).

CHAPTER II

Review of the Literature

Part I: Child Development Theory and Grade Level Characteristics

Robert Havighurst's Child Development Theory

Child development theorists used frameworks to explain and predict aspects of development in children and adolescents. The framework selected represented a particular perspective. Some of the best known frameworks included Freud's psychodynamic, Piaget's cognitive, and Skinner's behavioral perspective.

In the 1930s and 1940s, educators and psychologists in the Progressive Education Association discussed the stages through which individuals needed to progress for development (Merriam & Mullins, 1981, p. 124; Thomas, 1992, p. 78). These progressive educators and psychologists of the 1930s and 1940s coined the term *developmental task* (Thomas, p. 79). In the 1950s, Robert Havighurst formulated the developmental-task theory (Thomas, p. 79). His framework for explaining and predicting the development of children and adolescents consisted of a series of developmental tasks at which individuals worked and were successful as they moved from one stage of development to the next (Thomas, p. 78). The biological, cultural, and psychological tasks were common to nearly everyone in a particular culture. Biological tasks included walking and taking solid food. Cultural tasks included learning to read and write. Psychological tasks rose from an individual's personal values and aspirations (Thomas, p. 81). Success led to societal approval and a foundation for accomplishing later tasks

(Havighurst, 1972, p. 2; Thomas, p. 83). Task accomplishment of children and adolescents has been shown to lead to a "healthy and satisfactory growth in our society" (Havighurst, p. 2).

The number and type of tasks for different age levels has been shown to be somewhat arbitrary (Havighurst, 1972, p. 8; Thomas, 1992, p. 79). Some developmental tasks were universal, and others were found only in certain societies (Havighurst, p. 5; Thomas, p. 80). Thus, Thomas noted, "Lists of developmental tasks will not be the same for all cultures, and the items in the lists identifying a culture's tasks will be determined to some degree by the personal value systems of the people who prepare them" (p. 80).

According to Havighurst (1953, p. 2; 1972, p. 4; see also Merriam & Mullins, 1981, p. 125), it was crucial that a child passed through certain developmental tasks at the time designated as normal because success with one task was generally correlated with success in other tasks. Havighurst (1972) described these critical periods as "sensitive periods" when an individual "is especially able to learn quickly through certain kinds of experience" (p. 6). As an example of a sensitive period, Havighurst (1953, p. 3; Thomas, 1992, p. 82) described children who were denied human companionship during the first few years of life and did not learn to talk. As a result, these children could not learn to read and write or understand many concepts that would be normal to later stages of growth. Havighurst (1972) said, "The human mind literally grows on the basis of the language environment provided for it during the preschool years" (p. 14). Thus, the successful completion of certain developmental tasks was foundational for success in certain subsequent developmental tasks.

Although many tasks were achieved through a systematic passage, some tasks were achieved through spiral encounters at different stages of life (Merriam & Mullins, 1981, p. 139). For example, psychological tasks such as learning to be obedient or honest were recurrent tasks, whereas biological tasks, such as walking and eating solid food, and cultural tasks, such as learning to read and write, were more likely achieved sequentially (Havighurst, 1972, pp.40-41).

Application of Developmental Tasks

Tryon and Lilienthal (Association for Supervision and Curriculum Development [ASCD], 1950, pp. 84-87; see also Thomas, 1992, pp. 84-87) defined categories of tasks in five stages of development. Students in pre-kindergarten through eighth grade span three of those stages of development. In early childhood (ages two to seven), children are becoming physically independent while remaining emotionally dependent. They are beginning to develop the ability to interact with age-mates, to take directions, and to be obedient in the presence of authority. Their muscular abilities are improving, particularly the coordination of the large muscles. In late childhood (ages five to pubescence), individuals are freeing themselves from primary identification with adults. These individuals are establishing their peer group and learning to belong. They are improving their skill in using small muscle coordination. In early adolescence (pubescence to puberty), individuals are establishing independence from adults in all behavior areas. Cognitively they are moving from the concrete to the abstract and applying general principles to the particular. The students develop biologically, culturally, and psychologically.

Education is the effort of society to help individuals achieve certain developmental tasks (Havighurst, 1953, p. 5). The developmental-task theory was applied to the improvement of school curricula (Thomas, 1992, p. 88). Curriculum writers sought to match subject content and activities with the developmental tasks appropriate for children at different age levels (Thomas, p. 88).

The timing of accomplishing certain tasks might be crucial. Havighurst (1972) used the term *teachable moment* to describe "ages of special sensitivity for learning" some of the developmental tasks (p. 7). A teachable moment was a special time when an individual was ripe to learn a particular developmental task. Prior to those moments of student readiness, teachers' efforts were largely wasted, but when teachable moments were matched with developmental readiness, gratifying results came (Havighurst, 1972, p. 7).

Developmental Tasks and Age/Grade Level Characteristics

The general frameworks of developmental stages gave guidelines to teachers and parents for defining developmental tasks and for types of behaviors that can be expected of children at various age levels. Havighurst's theory of developmental tasks was foundational for generalizations about children's age level characteristics because it helped those who worked with children to know general characteristics of children at certain age levels (Havighurst, 1972, p. 8). Many practitioners (e.g., Askew, 1985; Clark, R., 1984; Salot & Leavitt, 1965) have described stages of development for children at specific ages and grade levels. (See Appendix F for a description of age level characteristics from Preschool through Adults.)

Part II: Learning Styles and Teaching Styles

Definition of Learning Styles

There are several definitions for learning styles as supplied by learning style theorists (e.g., Gordon, 1998; Gregorc, 1979; Harrison, Andrews, & Saklofske, 2003). Gordon stated that people have "unique and characteristic ways of using their mind[s]" (p. 4). Harrison, Andrews, and Saklofske said that learning styles are the interactions between the unique characteristics of the learner, the environment, and the task (Learning Styles and Preferences section, ¶ 1). Gregorc stated, "Learning style consists of distinctive behaviors which serve as indicators of how a person learns from and adapts to his environment. It also gives clues as to how a person's mind operates" (p. 234). The definitions generally encompass the same ideas.

Each learning style inventory has strengths and potential weaknesses depending on its purpose and the audience for whom it is intended. Of the numerous learning style inventories, the researcher selected The Gregorc Style Delineator™ (1985) to review in brief because it gives helpful information to teachers and students about cognitive learning styles and teaching style preferences.

Gregorc Style Delineator™

The Gregorc Style Delineator™ (1985) is a learning style inventory that measures information processing. The Gregorc Style Delineator™ uses a matrix of perception (concrete/abstract) and ordering (sequential/random). The matrix lists 40 descriptive words, specifically chosen for their connotative meanings in the English language (Gregorc, 2006). The Gregoric Style Delineator™ categorizes learners as Concrete-

Sequential (CS), Abstract-Sequential (AS), Abstract-Random (AR), or Concrete-Random (AR) (Harrison, Andrews, & Saklofske, 2003, Cognitive Styles section, ¶ 2). For the four quadrants of Gregorc's Style Delineator™, a person could have one, two, or even three styles (Gordon, 1998, p. 12). Rarely is an individual equally strong in all four quadrants.

Gregorc began his study on learning styles when he noticed that gifted students were underachieving. In his research, he developed his theory of processing styles (Tendy & Geiser, 1997, p. 5). Students of different cognitive styles perform better in different fields of learning. In teacher-led classroom presentations, CS and AS learners like lectures; AR learners prefer more group discussions to follow short lectures; and CR learners like to discover their own answers rather than be told the information by the teacher (Terry, 2002, Teacher Led Classroom Presentations section). AR and CR students enjoy student group discussion and projects, whereas CS and AS students prefer to work independently in an orderly environment (Terry, Student Group Discussions and Projects section). For individual assignments, CS students focus on details; AS students like abstract learning; AR students appreciate freedom to choose topics and assignment formats; and CR students enjoy the freedom to be creative (Terry, Individual Assignments section). For testing situations, CS students prefer tests on detailed information in true-false or multiple-choice formats; AS students prefer essay questions where they can show their ability to analyze information; AR students like short essay-answer questions but would prefer to be evaluated on classroom presentations; and CR students prefer open-ended and problem-solving questions (Terry, Testing Situations section).

Do Individual Learning Styles Change?

Researchers have yet to find support for a neurological basis of cognitive learning styles, but many researchers suggested that the blueprint for an individual's cognitive and personality style is genetically present at birth (Delahoussaye, 2002; Dunn, 1990; Harrison, Andrews, & Saklofske, 2003, What Can We Conclude section, ¶ 1; Hersey, Blanchard, & Johnson, 1996, p. 39; Teglasi, 1995, ¶ 1). Although students demonstrate a relatively stable learning style preference over time, that preference can change (Delahoussaye; Harrison, Andrews, & Saklofske, What Can We Conclude section, ¶ 2). Lemire and Gray (2003, Implications section, ¶ 4) stated that learning styles indicated tendencies that may be modified by the situation or intentional choices. Learning styles may change because of life experiences or the type of subject matter studied (Delahoussaye). In addition, styles may change in coordination with age level characteristics. For example, in regards to modality strengths, primary grade students are more auditory than visual and shift to visual and kinesthetic modalities in the late elementary years (Barbe & Milone, 1981, p. 378; Wilson, 1998, Walter Barbe, Michael Milone, and Raymond Swassing section, ¶ 2). Similarly, Griffith and Frey (2000) stated that preliterate children are better listeners than those who are literate (p. 807).

What Happens When Teachers Do Not Teach to Individuals' Learning Styles?

Some have argued that matching learning styles with instructional methods makes no difference in academic achievement (Kavale & Forness, 1987, p. 237). Horton (1997) cited the study by Kavale and Forness (1987) and noted, "A meta-analysis of studies on learning style applications reports little or no achievement gains when instruction methods match learning modalities" (¶ 4).

Other researchers, however, have argued that mismatching learning styles with instructional methods challenges students to develop competencies in using the whole brain (Beck, 2001, Suggestions for Selecting and Designing Learning Style Inventories section, ¶ 4; Brown, B., 2003, ¶ 6; Delahoussaye, 2002; Robles, 1998, p. 17). Researchers discovered when students are matched with a teaching style that differs from their learning style, they are able to develop competencies in a range of learning styles (Brown, B., 2003, ¶ 6). Beck (2001, Suggestions for Selecting and Designing Learning Style Inventories section, ¶ 4) suggested encouraging teachers to avoid using a teaching style that only reflects their preferred style in order to help students process learning using the whole brain. Although cognitively stretching students to employ various learning styles is challenging, the struggle itself is part of learning (Delahoussaye, 2002). Robles (1998) said it is "important to provide experiences in all learning styles so that students are exposed to a variety and learn to adapt" (p. 17). Some learners are more flexible than others in accommodating to different teaching styles; however, Delahoussaye believes that with sufficient incentive, most people can learn in a style other than their original learning style preference.

Why Teach to Individual Learning Styles?

Kavale and Forness (1987) said, "Ever since Plato's dialogue with Meno, educators in general . . . have attempted to match instruction to student needs" (p. 228). Learners are likely to have a greater natural interest in a subject and absorb more information if teachers deliver content in a way that matches students' learning style preferences (Delahoussaye, 2002; Dunn, 1990). Delahoussaye compared individualized learning to a radio receiver tuning in to the sharpest frequency -- the clearer the reception,

the more efficient the learning. In addition, learning time is reduced, knowledge retention improved, and motivation to learn increased. Canfield and Canfield (1988) said that when instructional styles are matched with students' similar learning styles, "greater success and satisfaction for both the student and the instructor" (p. 24) would occur.

Gordon (1998, p. 17) found that although students who are academically average and above learn despite the teacher or the teacher's style, other students find it more challenging to learn through a teaching style that does not match their learning style (p. 17). Moreover, certain students can learn only through their learning style (Dunn & Dunn, 1979, ¶s 1-2). Thus, teacher awareness of learning styles enables teachers to develop alternate methods of instruction. The more teachers know and understand the diversity of learning styles, the more they develop a deeper sense of responsibility for motivating and teaching their students in ways with which the students are most comfortable (Beck, 2001, ¶ 4).

Learning Styles Related to Teaching Styles

Do learning styles of teachers reflect their teaching styles? Lacey, Saleh and Gorman (1998) stated little research has been done on teaching styles because "most researchers do not distinguish between learning and teaching styles" (p. 4; see also Heimlich & Norland, 1994, p. 41; Kirby, 1979, p. 85; Ladd, 1995, p. 31). Learning styles and teaching styles have been shown to be closely interrelated (Fischer & Fischer, 1979, p. 251). Stitt-Gohdes, Crews, and McCannon (1999, ¶ 2) stated, "Historically, literature has supported the belief that most teachers teach the way they learn best." Research affirmed the notion that teachers generally teach the way they learned (Barbe & Milone, 1981, p. 379; Brown, B., 2003, p. 3; Ladd, 1995, p. 29; Stitt-Gohdes, 2001, ¶ 2). Gilbert

and Han (1999) noted, “Instructors generally use what works best for them and on the average, most people get it” (p. 2). However, in addition to teaching the way they learned, some teachers claim they teach the way they do because that is the way they were taught (Marshall, 1991, p. 225).

Teaching styles vary on a continuum ranging from teacher-centered to student-centered (Gomberg & Gray, 2000, ¶ 2). For the most part, teaching styles are teacher-led. However, research also shows that when teachers are instructed in learning theories, they are more likely to adopt student-centered styles of instruction (Brown, B., p. 3).

Teaching Styles

Psychologists have contended that personality structures develop early in life and become more difficult to change as people grow older, and their pattern of behavior becomes predictable (Hersey, Blanchard, & Johnson, 1996, p. 39; Field, 1982; Northouse, 2004, p. 236, Teglasi, 1995, ¶ 2). Researchers have found that a pattern of behavior can be applied to teaching behavior as well. Teaching styles are patterns of behaviors carried out by instructors in the classroom (Galbraith & Sanders, 1987, p. 170; Gregorc, 2006). Classifications of teaching styles are often similar in appearance (Heimlich & Norland, 1994, p. 41). Teaching styles encompass what classroom routines the teachers establish, how the teachers choose to arrange the room, how the teachers use class time, and what teachers do to enable pupils to develop as individuals (Martin & Baldwin, 1993, p. 5). Although teaching styles are shaped by personal preferences and cultural conditions (Ladd, 1995, p. 31; Worfel, 2002, p. 10), once shaped, they tend to “persist even when content changes” (Heimlich & Norland, 1994, p. 41; qtd. in Lacey, Saleh, & Gorman, 1998, p. 12).

Under What Situations Do Teaching Styles Change?

There are several different learning and instructional styles that students and teachers exhibit. Teachers' instructional methods differ for various reasons including the kind of learning experiences students value, and the student's age, gender, and stage of development (Brown, B., 2003, p. 4). Particularly problematic has been the lack of recognition of educators to acknowledge these differences when they require curriculum materials incompatible to many teachers' instructional style (Canfield & Canfield, 1988, p. 16; Ladd, 1995, p. 42).

Part III: Management Styles

A Lesson on Teaching Styles from the Business Community

In *Leadership: Theory and Practice*, Peter Northouse (2004) provided several models of leadership. One model, the Situational Approach, specifies how business leadership can be used in the classroom environment (see also Hersey, Blanchard, & Johnson, 1996, p. 194). The authors have stated that the basic premise of the model is that leaders can adapt their style of leadership to the demands of different situations (Northouse, p. 87). The leader adopts a specific style of leadership for each employee's level of development (Northouse, p. 92). In some cases, leaders view their employees individually (Hersey, Blanchard, & Johnson, p. 190; Northouse, p. 93), and in other cases, leaders view their employees collectively (Northouse, p. 96; Phipps & Phipps, 2003, p. 3).

The History of Instructional Management from the Business Community

A number of theorists have proposed significant motivation and leadership theories over the past century (Hersey, Blanchard & Johnson, 1996, p. 99). In the early 1900s, Frederick Winslow Taylor claimed that the best way to increase performance output was to improve techniques used for production (Hersey, Blanchard & Johnson, p. 100). By viewing people as instruments or machines to be manipulated, Taylor focused on techniques and environmental organization and not on the needs of individuals (Hersey, Blanchard & Johnson, p. 100). In 1933, Elton Mayo conducted the Hawthorne Studies in which he argued that interpersonal relationships are the real power centers within organizations (Hersey, Blanchard & Johnson, p. 100). Taylor's model emphasized

task, whereas Mayo's Hawthorne Studies stressed the concern for human relationships. Hersey, Blanchard and Johnson (1996) said, "The recognition of these two concerns [task and relationship] has characterized the writings on leadership ever since the conflict between the scientific management and the human relations schools of thought became apparent" (p. 101).

The Situational Leadership Model

Hersey, Blanchard, and Johnson (1996) described leadership style as the behavior pattern a person uses to influence the activities of others and involves a combination of task and relationship (p. 134). Hersey and Blanchard's Situational Leadership Model (1969) depicts four leadership style behaviors. The Situational Leadership Model is based on two dimensions of leadership, namely, supervision of task (or direction) and relationship (or emotional support). The leader determines the amount and type of direction needed for the employees, that is, what activities to do and when and where and how (Hersey, Blanchard, & Johnson, p. 134). The leader also determines the amount and type of emotional support needed by the employees, that is, active listening, psychological strokes, or facilitating behaviors (Hersey, Blanchard, & Johnson, p. 134). According to Don Clark (2001), leaders in the Hersey and Blanchard model decide the correct amount of supervision and emotional support to produce the best learning environment.

As its name implies, in the Situational Leadership Model, different situations require different styles of leadership (Northouse, 2004, p. 87). The first step in the Situational Leadership Model is Directing where the leader provides a lot of direction and some support (Hersey, Blanchard, & Johnson, 1996, p. 201; Northouse, p. 89). The

second step is Coaching where the leader provides some direction but an increased amount of support (Hersey, Blanchard, & Johnson, p. 202; Northouse, p. 89). The third step is Supporting where the leader provides only a small amount of direction and support (Hersey, Blanchard, & Johnson, p. 203; Northouse, p. 89). The fourth step is Delegating where direction and support are provided on an as-needed basis (Hersey, Blanchard, & Johnson, p. 205; Northouse, p. 90). Hersey, Blanchard, and Johnson said, "The leadership style a person uses with individuals or groups depends on the readiness level of the people the leader is attempting to influence" (p. 190).

Hersey's & Blanchard's Situational Leadership Model (1968)

Supporting **S3**	**Delegating** **S4**
Coaching **S2**	**Directing** **S1**

From the Business Community to the School Community

Although the Situational Leadership Model was designed for the business community, it has applications for classrooms (Hersey, Blanchard, & Johnson, 1996, pp. 220, 364). Teachers are leaders and managers in the classroom. Superintendents and other administrative personnel generate ideas to implement in the schools, but teachers are in the best position to implement strategies in the classroom (Suleiman & Moore, 1997, pp. 9-10). In addition, as John Laut (1999) said, "Being an effective manager means being an effective teacher" (p. 3).

According to J.W. Gardner (1990), teaching and leading are two distinct yet compatible occupations. Every great leader is also teaching, and every great teacher is also leading (Gardner, p. 18). Grade school teachers are responsible for the content and process of learning (Robles, 1998, p. 5). This includes both the task of directing learning and the relationship or emotional support for learning. The Situational Leadership Model as applied to the classroom is based on the concept that learners will pass through four quadrants during skill acquisition: Directing, Coaching, Supporting, and Delegating. Directing is characterized by the learner being dependent on the teacher for both direction and support. The learner progresses through the next quadrant of Coaching where the leader provides some direction and increased support, then through Supporting as increased independence is gained. The last quadrant, Delegating, is noted by the student's independence from the teacher's direction and support.

Leading Individuals and Groups

In the Situational Leadership Model, the leader changes styles of leadership to match the readiness of the learners (Phipps & Phipps, 2003, p. 4). In *Leadership and the One Minute Manager,* Blanchard, Zigarmi, and Zigarmi (1985) narrate a tale of the One Minute Manager who uses various leadership styles to manage individuals according to their needs. Students within a classroom have different needs. Some learn best by themselves, others learn best with peers, and others need to work with the teacher (Griggs, 1989, p. 136). Also, in a classroom, students learn at different paces (Ireh & Bailey, 2002, Situational Leadership Theory section, ¶ 5; Northouse, 2004; p. 92). The teacher can use various teaching styles to meet the individual students' needs.

However, research also shows that subgroups of special populations function in particular quadrants for particular tasks (Carder, 1996, p. 2; Griggs, 1989, p. 136; Phipps & Phipps, 2003, p. 3). In other words, a class of students at a particular grade level functions primarily in one of the quadrants for a learning task. Thus, teachers can address a group of students according to their general level of performance.

Integration of the Quadrants and Age Level Characteristics

Child development theorists Robert Havighurst (1972) and Erik Erikson (1963) have attempted to explain life span development. Myers (1991) said, "These theorists have proposed life-stage theories to explain normative aspects of development, or what people share in common" (Theoretical Approaches to Understanding Later Life section, ¶ 2). Argyris's Immaturity-Maturity Continuum of 1964 (Hersey, Blanchard, & Johnson, 1996, p. 74) showed how individuals develop along the continuum from childhood to adult, from passive to active, from dependent to independent, from shallow interests to deeper interests, from short time perspective to long time perspective, from subordinate position to equal or superordinate position, and from lack of self-awareness to awareness and control over self. Malcolm Knowles said, "Most teachers of adults have only known how to teach adults as if they were children" (qtd. in Ingalls, 1972, p. 5). His statement implied that individuals pass through physical and cognitive developmental stages, each requiring developmentally appropriate styles of teaching. In pedagogy, learners remain dependent on the teacher, whereas andragogy demands teachers create an environment where learners will become increasingly independent (Knowles, 1973, p. 64).

Based on child development theory, students who are approximately the same age in particular grade levels share similar characteristics (Askew, 1985, pp. 8-9; Association

for Supervision and Curriculum Development, 1950, p. 85; Clark, R., 1984, pp. 7-28; Havighurst, 1972, pp. 8-35; Salot & Leavitt, 1965, pp. 3-4). If students function developmentally in similar ways, are they predominantly within certain quadrants for the majority of school-related tasks per grade level? If so, different instructional methods would be developmentally appropriate for different age levels. Are certain styles of instructional management better suited for learners of certain ages? Although teachers function in each of the quadrants, do they have a natural preference for using a particular management style? The purpose of this study was to explore the relationships between age level characteristics and complementary instructional management styles. Analyzing age level characteristics and instructional management styles provided insight for the answers to these questions.

Parker (personal communication, May 2006) told the researcher about the Parker Learning Style Profile Calculation Form (2005) that was originally designed in 1995 but has since been revised. His Learning Style Profile initially was used primarily with adults, but more recently has been used with college students. In order to assess teachers' preferred instructional management style, the researcher modified Parker's Learning Styles Profile Calculation Form (2005). Parker's FIRESIDE Instructional Management Profile (2006) is based on the Situational Leadership Model. Teachers use this instrument to rate types of instructional management activities with which they prefer to teach. In this model, individual students are not viewed as cycling through the steps on individual tasks; rather students are grouped by grade levels according to their developmental characteristics in a life-stage format.

Parker's FIRESIDE Instructional Management Profile

Parker's FIRESIDE Instructional Management Profile (2006) integrates both task (work on/work off) and relationship (hands on/hands off) components. The task refers to the work being primarily directed by the teacher (work on) or by the student (work off). The relationship refers to motivation for the task as being external and teacher-driven (hands on) or internal and student-based (hands off). A teacher functions in each quadrant, but it is possible to classify the preferred nature of the teacher by observing the classroom activity a teacher adopts as his or her "specific epistemology, or view of knowledge" (Scheurman, 1998, ¶ 7; see also Gregorc & Butler, 1984, p. 27).

Parker's FIRESIDE Instructional Management Profile

Facilitator of **I**ndependence (**FI**) work on/hands off	**R**esource **E**xpert (**RE**) work off/hands off
Supportive **I**nstructor (**SI**) work off/hands on	**D**ynamic **E**ngager (**DE**) work on/hands on

Descriptions of the Four FIRESIDE Profiles

Facilitator of Independence (FI) - This instructional management quadrant is identified by work on/hands off. This quadrant corresponds to S1 Directing of the Situational Leadership Model (Hersey, Blanchard, & Johnson, 1996, p. 201). This style of instructional management is appropriate for students who need high amounts of guidance but little support (Hersey, Blanchard, & Johnson, p. 201). The teacher establishes the

goal and directs the student by telling them what to do, where to do it and how to do it (Hersey, Blanchard, & Johnson, p. 201; Northouse, 2004, p. 89).

Hoyt and Lee (2002, p. 3) described this teaching style as one that captivates students' involvement with the subject matter and structures the classroom so that communication of subjects and expectations is clear. The teacher establishes a verbal contract with the student, using predominantly one-way communication (Ingalls, 1972, p. 7). The teacher structures the lesson and serves as a consultant, but the students work independently (Ingalls, p. 7). The teacher determines the method of evaluation (Northouse, 2004, p. 89). The teacher sets the time lines (Northouse, p. 89). By periodically checking the students' work, the teacher provides close supervision and accountability. The general instructional method is the lecture, and often the desks are in rows and columns facing the teacher (Hersey, Blanchard, & Johnson, 1996, pps. 220, 364). For the Facilitator of Independence, the purpose of education is to transmit knowledge (Robles, 1998, p. 6).

In the Facilitator of Independence quadrant, the teacher directs the work, but the motivation to do the work comes from the students' internal motivation. Although the Facilitator of Independence is defined by high task/low relationship, the teacher always has some relationship with the students (Hersey, Blanchard, & Johnson, 1996, p. 200). These teachers find ways to make learning personal so the students are motivated internally by personal fulfillment and accomplishment (Bowman, 2004, Management of Meaning section, ¶ 1).

Students who match Gregorc's Concrete-Sequential learning style might function well with teachers who use the Facilitator of Independence instructional management

style. The Concrete-Sequential student likes taking notes from clearly ordered lectures and presentations (Gregorc & Butler, 1984, p. 27). The Concrete-Sequential student is logical, prefers to work with hands-on concrete materials, likes structured activities and step-by-step directions, likes manuals, enjoys responding to questions in a chapter of the textbook, enjoys responding to programmed learning from computers or workbooks, and prefers multiple-choice tests (Fischer & Fischer, 1979, p. 246; Gregorc & Butler, p. 27; Scheurman, 1998, Teacher as Transmitter section, ¶s 1-2).

Resource Expert (RE) – This instructional management quadrant is identified by work off/hands off. This quadrant corresponds to S4 Delegating of the Situational Leadership Model (Hersey, Blanchard, & Johnson, 1996, p. 205). This style of instructional management is appropriate for students who are able, willing and confident to take responsibility for planning and achieving their learning goals (Hersey, Blanchard, & Johnson, p. 205). This quadrant is marked by primarily student-directed work and high internal student motivation (Carder, 1996, p. 4). The students pursue their topics of interest (Fischer & Fischer, 1979, p. 251). The environment reflects a community of learners along with the teacher, where individual experience is valued as a resource for learning (Ingalls, 1972, p. 7). The teacher and students agree to the definition of what the students are going to do, and the teacher gives more control of the details and methodology of goal accomplishment to the students (Northouse, 2004, p. 90). Although it is not necessary for the teacher to provide direction or encouragement, it is still appropriate for the teacher to monitor the work.

As the level of student maturity rises, less teacher support is given for the task or relationship (Carder, 1996, p. 1; Northouse, 2004, p. 87). According to Hersey,

Blanchard, and Johnson (1996), the desks may be arranged with students in a circle, but the teacher is outside of the circle and off to the side (p. 364). The teacher remains accessible, and direction and support are provided on an as-needed basis (Blanchard, Zigarmi, & Zigarmi, 1985, p. 42; Hersey, Blanchard, & Johnson, p. 220). Although the Resource Expert style is defined by high task/low relationship, the teacher always has some relationship with the students (Hersey, Blanchard, & Johnson, p. 200). Robles (1998, p. 4) noted that a more equal and reciprocal relationship is often used with mature learners who are suited to a self-directed learning approach. This style of instruction is extremely rare in the classroom (Fischer & Fischer, 1979, p. 251).

Students who match Gregorc's Abstract-Sequential learning style might function well with teachers who use the Resource Expert instructional management style. Abstract-Sequentials like extensive reading assignments and independent thought assignments (Gregorc & Butler, 1984, p. 28). Their writing is excellent as is their verbal decoding abilities. They are able to extract main ideas from logical presentations through lectures, audio tapes, or text. They enjoy analytic think sessions (Gregorc & Butler, p. 28). Certain types and age levels of learners might function best in student-initiated learning environments where they have choices to pursue their own course of learning.

Supportive Instructor (SI) – This instructional management quadrant is identified by work off/hands on. This quadrant corresponds to S3 Supporting of the Situational Leadership Model (Hersey, Blanchard, & Johnson, 1996, p. 203). This style of instructional management is appropriate for students who need two-way communication for motivation but low amounts of guidance for the task (Hersey, Blanchard, & Johnson, p. 203; Northouse, 2004, p. 89). The students are capable and actively involved in the

learning but need emotional support. The students have not had the opportunity to gain confidence in their performance due to some failure that is likely to occur or has occurred (Clark, D., 2001; Fischer & Fischer, 1979, p. 250). The teacher's individualized instruction provides the students with encouragement and support to participate at all levels (Fischer & Fischer, p. 251). For the Supportive Instructor, the purpose of education is reciprocity in the teacher/student relationship where the students are encouraged and enabled to develop as individuals (Ingalls, 1972, p. 6; Stitt-Gohdes, Crews, & McCannon, 1999, ¶ 6).

The Supportive Instructor works with students individually or as a group. For individuals, the teacher provides extended one-on-one attention or tutoring for the student. The teacher facilitates the learning, actively listens to the students, draws out their input, compliments their work, and praises them to build their confidence (Blanchard, Zigarmi, & Zigarmi, 1985, p. 32; Hersey, Blanchard, & Johnson, 1996, p. 203). In a classroom where the Supportive Instructor works with groups of students, the students' desks might be arranged in a circle where the teacher is a member of the circle as well (Hersey, Blanchard, & Johnson, p. 364). The teacher participates in the group discussion as a supportive but nondirective group member (Hersey, Blanchard, & Johnson, p. 220). The teacher does not tell the students how to solve a task but rather asks questions that expands students' thinking (Blanchard, Zigarmi, & Zigarmi, p. 32).

Hoyt & Lee (2002, p. 5) found that the most popular instructors communicated clearly, interacted with students in a caring manner, and stimulated enthusiasm about the subject. Hoyt and Lee described this style of teacher as those who establish caring

relationships with their students. The Supportive Instructor effectively inspires students to learn.

Students who match Gregorc's Abstract-Random learning style might function well with teachers who use the Supportive Instructor management style. The Abstract-Random student pays close attention to human behavior and thus needs more personalized instruction and feedback (Gregorc & Butler, 1984, p. 29). The Abstract-Random student is attuned to atmosphere and mood more than those of other learning styles. The Abstract-Random student ties in the speaker's manner, delivery, and personality to the message. Because Abstract-Random students are more tuned in to the emotional aspects of learning, they prefer multi-sensory experiences and teaching methods that make use of movies and multi-media (Gregorc & Butler, p. 29).

Dynamic Engager (DE) – This instructional management quadrant is identified by work on/hands on. This quadrant corresponds to S2 Coaching of the Situational Leadership Model (Hersey, Blanchard, & Johnson, 1996, p. 202). This style of instructional management is appropriate for students who are unable to perform the task but are trying, who lack knowledge, or who may be inexperienced or temporarily confused (Bowman, 2004, Management of Attention section, ¶ 1; Hersey, Blanchard, & Johnson, p. 202). In this quadrant, the teacher provides a lot of direction and support (Ingalls, 1972, p. 6). The Dynamic Engager sets the educational goals and reinforces small improvements made by the learners (Northouse, 2004, p. 89). The teacher actively involves and engages the whole class in the lesson. Research shows that active learning leads to "greater gains in critical thinking and problem solving skills, greater acceptance and tolerance for diversity, and better performance on subsequent examinations" (August,

Hurtado, Wimsatt, & Dey, 2002, p. 4). The Dynamic Engager externally motivates students by creating an atmosphere of excitement and high emotion (Bowman, Management of Meaning section, ¶ 1; Fischer & Fischer, 1979, p. 248). Gomberg and Gray (2000, ¶ 1) reported that in addition to being knowledgeable and organized, good teachers possess qualities of enthusiasm, energy, approachability, concern, imagination, and have a good sense of humor. These teachers stimulate student interest and curiosity to engage the students on an affective level in the learning process (Belasco & Stead, 1999, p. 16; Griggs, 1989, p. 135; Hoyt & Lee, 2000, p. 5; Stitt-Gohdes, Crews, & McCannon, 1999, ¶ 6).

The classroom atmosphere of the Dynamic Engager is marked by "poetry, drama, lively descriptions and the teacher's own obvious enjoyment and involvement in the substance of learning" (Fischer & Fischer, 1979, p. 248). The teacher uses a variety of activities (typically not paper/pencil activities) to "focus attention and frame purpose" for collective engagement (Bowman, 2004, Management of Attention section, ¶ 2). The Dynamic Engager might set up the classroom by having the students sit in a circle with the teacher in the center directing the conversation (Hersey, Blanchard, & Johnson, 1996, pp. 220, 364). The teacher provides guidance and opportunity for dialogue where the teacher asks for student input, and clarifies or explains information (Hersey, Blanchard, & Johnson, p. 220; Northouse, 2004, p. 89). For the Dynamic Engager, the purpose of education is to make learning "meaningful and relevant to the knowledge, abilities, and interests of their students" (Onwuebguzie, Witcher, Filer, & Downing, 2000, p. 22).

Students who match Gregorc's Concrete-Random learning style might function well with teachers who use the Dynamic Engager instructional management style. The

Concrete-Random student prefers the teaching methods of games, simulations, individual or group projects, and short answer quizzes (Gregorc & Butler, 1984, p. 29).

Summary of Parker's FIRESIDE Instructional Management Profile

Facilitator of **I**ndependence (**FI**) work on/hands off	**R**esource **E**xpert (**RE**) work off/hands off
• Students take notes from lectures • Students follow teacher's directions • Students listen more than talk • Students work independently on teacher-directed assignments • Students stay on task with minimal supervision • Students are motivated to do assigned work • Teacher provides concrete objects for better understanding of concepts • Teacher makes learning relevant • Teacher gives step by step directions • Teacher assigns workbook pages or questions to answer from the text • Teacher gives multiple choice tests	• Students pursue topics of interest • Students are self-directed • Students prefer to work independently • Students' experiences are resources for learning • Students are skilled at writing • Teacher has students plan goals • Teacher has students decide details and methodology of reaching goals • Teacher supports extensive independent reading assignments • Teacher encourages students' independent analyses of main ideas of text and lectures • Teacher gives support as needed
Supportive **I**nstructor (**SI**) work off/hands on	**D**ynamic **E**ngager (**DE**) work on/hands on
• Students engage in discussions • Students like relationships • Students like to talk • Students welcome praise and teacher input • Students prefer multisensory learning experiences • Teacher uses movies and other media to teach • Teacher gives personalized attention • Teacher provides one-on-one instruction • Teacher inspires students • Teacher encourages students to complete tasks	• Students need a lot of direction • Students enjoy a variety of learning activities • Students participate in class discussions • Students learn from games, simulations, and projects • Teacher engages students in whole class activities • Teacher presents exciting and enthusiastic lessons • Teacher participates in the lesson • Teacher generates active learning • Teacher rewards small improvements

Predicted Use of Parker's FIRESIDE Instructional Management Profile

Cognitive and learning styles reflect individual strengths and often influence the profession an individual pursues (Northouse, 2004, p. 252; Thornton, Peltier, & Hill, 2005, p. 493). Thus, an analysis of learning and management styles has the potential for enhancing career guidance (Kirby, 1979, p. 5; Thornton, Peltier, & Hill, p. 493). Although no particular personality has been shown to be predictive for selecting leaders or teachers (Moore & Dyer, 2002, Leadership Styles and Adaptability section, ¶ 2; Northouse, pp. 236, 252), the latter tend to perform best when their teaching style matches the task taught (Kirby, p. 89; Thornton, Peltier, & Hill, p. 494). Identifying teachers' preferred instructional management styles may indicate natural grade level fits and lead to teaching that is more effective. These data may also help pre-service teachers select their course of preparation.

Prior to extended classroom experience, pre-service teachers at Valley Forge Christian College will be given the FIRESIDE profile to identify their natural management preferences. The profile calculation form will reveal students' dominant instructional management style. Although classroom management experiences and leadership education may modify personal biases over time (Martin & Baldwin, 1993, p. 6; Pascarella & Lunenburg, 1988, p. 36; Phipps & Phipps, 2003, p. 6), the research suggests that teachers begin teaching the age level of students that match their natural management style (Canfield & Canfield, 1988, p. 24; Marth & Newman, 1993, p. 4; Stitt-Gohdes, Crews, & McCannon, 1999, ¶ 5; Thornton, Peltier, & Hill, 2005, pp. 489, 494).

A Predominant but Not Exclusive Instructional Management Style

The Center for Leadership Studies published a LEAD Self-Inventory (Hersey & Blanchard, 1988) that measures aspects of behaviors based on the Situational Leadership Model. The directions instruct the responder to answer what he or she *would* do, not *should* do. The style with the most responses indicates the respondent's primary leadership style (Moore & Dyer, 2002, Instrumentation section, ¶ 5). Thus, there are no right answers, and in essence, the inventory assesses the quadrant in which the leader primarily functions.

Teachers have predominant instructional management styles in which they primarily function. The predominant style of the teacher may influence learning more than anything else (Heimlich & Norland, 1994, p. 46; Ladd, 1995, p. 32). Ladd said, "As with learning styles, given the choice, teachers will teach through their primary teaching style" (p. 31). According to Heimlich and Norland (1994), a teaching style has been described as a function of an individual's personality (p. 45). Rather than adapting to students' learning styles, Heimlich and Norland recommend that teachers adopt methods and strategies that are consistent with their dominant individual style (p. 45).

Educational researchers differ on whether teachers should teach using their dominant style or teach to the style of the learners. For example, teachers' dominant instructional management styles reflect their beliefs and actions; however, in the classroom, teachers use instructional management styles from each of the quadrants at various times (Fischer & Fischer, 1979, p. 254; Laut, 1999, p. 5). Stitt-Gohdes, Crews, and McCannon (1999, ¶ 8) said, "A teacher's instructional style is that which is most appropriate for students regardless of the instructor's preferred style." Not all students

learn the same way and teachers must be willing to alter their teaching styles if the needs of students warrant change (Dunn & Dunn, 1979, p. 241; Fischer & Fischer, p. 254; Pickard, 1998, p. 2). As Rita Dunn (1990) said, "When students cannot learn the way we teach them, we must teach them the way they learn" (p. 15). But Liesveld and Miller (2005) pointed out, "Different methods work for different teachers; different methods work for different students" (p. 30). This study proposes that both the teachers' and learners' styles should be considered by matching teaching styles with learning styles as related to age level characteristics of students.

No one style of learning or instruction is necessarily better or worse than the others are, but using a variety of instructional methods and strategies will appeal to a variety of learning styles. To accommodate all styles, effective instruction "must involve all the senses and must require teachers to immerse students in a variety of activities" (Learning Styles, 2004, ¶ 2). This is particularly important "in light of an increasingly diverse student population" (Learning Styles, ¶ 5). Seidel and England (1997) said, "Eclecticism is thus the key to reaching all students, and in order to maximize all students' potential for academic success, a variety of instructional and assessment methods must be employed" (p. 21).

Summary

To describe the leadership processes in terms of quadrants makes it "seem more patterned and orderly than it is" (Ireh & Bailey, 1999, Theoretical Framework section, ¶ 1). No leader functions in only one quadrant, nor is one style of management best for all situations (Griggs, 1989, p. 136; Ireh & Bailey, Theoretical Framework section, ¶ 2). Leaders must adjust to the circumstances and maturity level of the followers (Blanchard,

Zigarmi, & Zigarmi, 1985, pp. 18-19; Carder, 1996, p. 1; Ireh & Bailey, Situational Leadership Theory section, ¶ 3). Blanchard, Zigarmi, and Zigarmi reaffirmed the notion that leadership styles are adjusted to the level of the learner when they said, "There is nothing so unequal as the equal treatment of unequals" (p. 33). As the general levels of students develop, the style of leadership should change as well, regardless of whether or not it is the teacher's natural preference. Ultimately, the teacher's instructional goal should be to help individuals become independent (Fischer & Fischer, 1979, p. 254). In support of teachers moving students toward independence, Havighurst (1953, p. 39; 1972, p. 33) said:

> Much of the success or failure of children on this task depends on the relationship between the teacher and the pupils. If the teacher is a despot, even a benevolent one, children will get very little practice in the achievement of personal independence. On the other hand, if the teacher can play the roles both of umpire and of committee chairman [*sic*], the children will get abundant opportunity to take responsibility for their own studies, to organize school activities, and to discover for themselves a true and adult basis of authority – namely, knowledge and experience with the subject under consideration. (p. 39)

CHAPTER III

Research Design and Methodology

The purpose of this chapter is to state the hypothesis and to describe the participants, the survey instruments, the procedure for gathering data, and the program design for data analysis. The purpose of the dissertation is to explore the relationship between age level characteristics, complementary instructional management styles, and other related factors including current grade of instruction, gender, satisfaction, subject area, and years of experience. The primary objective of the analysis of teaching profiles and grade level preferences is to answer the following research questions:

1. Are different instructional methods more developmentally appropriate for different age levels, if students in the same grade level function developmentally in similar ways?
2. What are the distinguishing instructional management styles between teachers who choose to teach at lower grade levels (PreK-3) and teachers who choose to teach at upper grade levels (4-8)?
3. Do other factors correlate with instructional management styles (i.e., current grade level of instruction, gender, satisfaction with teaching, subject area of instruction, and years of experience)?
4. Although teachers use different instructional management styles, do they have a natural preference for a particular management style?

5. Could an instructional management tool help pre-service teachers make an informed choice based on grade level preferences of teachers with matching instructional management profiles who are already in the field?

Restatement of the Problem

Because of recent legislation by the Pennsylvania Department of Education, by the year 2012, pre-service teachers may have to choose to be certified in either early childhood (PreK-3) or elementary/middle school (4-8) rather than being issued instructional certificates in grades K-6. As such, students will have to make that decision early in their college program prior to classroom observations and experiences that shape preferences for grade levels. Thus, the problem of career decision making leads to the research question: Is there a relationship between PreK-8 teachers' instructional management profiles and their preferences for teaching either lower (PreK-3) or upper (4-8) elementary grade students? An analysis of the research can provide answers.

Hypothesis and Null Hypothesis

The primary hypothesis for the problem statement for this dissertation is that teachers who prefer to teach lower elementary students (PreK-8) will differ in instructional management styles from teachers who prefer to teach upper grade students (4-8) as determined by Parker's FIRESIDE Instructional Management Style Profile (2006). For statistical purposes, the related null hypothesis is that the proportions of the four instructional management profiles for teachers who prefer to teach lower grades will be the same as the proportions of the four instructional management profiles for teachers who prefer to teach upper grades.

For the purpose of statistical analysis, null hypotheses related to the research questions are as follows:

(1) Teachers who currently teach in grades PreK-3 will have the same instructional management styles as teachers who currently teach in grades 4-8.

(2) The instructional management styles of males will be the same as the instructional management styles of females.

(3) Teachers who prefer to teach lower or upper grade students will be equally satisfied teaching in either level.

(4) Teachers of special subjects such as art, music, and physical education will have instructional management styles that match the styles of classroom teachers.

(5) New teachers will have the same instructional management styles as experienced teachers.

Participants

The sample of subjects was randomly selected from teachers who teach in schools where Valley Forge Christian College students are placed for student teaching. Over 1400 PreK-8th grade teachers were sent an e-mail invitation to participate in the survey regarding their instructional management style and grade level preference. Teachers surveyed included regular classroom teachers, substitute teachers, and teachers of special areas such as art, music and physical education. The Pennsylvania teachers surveyed were from Christian, private, and public school settings.

Upon the Review Board's approval, initial contact was made with the following Public School Districts: Boyertown, Coatesville, Downingtown, Great Valley, Methacton, Norristown, Owen J. Roberts, Perkiomen Valley, Phoenixville, Pottsgrove,

Pottstown, and Spring-Ford. Of the 12 school districts, six are in suburban areas, three are in rural areas, and three are in small urban areas. Coatesville Area School District declined participation due to the timing, which coincided with administering state tests to the students. Norristown and Downingtown Area School Districts declined participation due to teachers' engagements with other surveys and grant-funded initiatives. Perkiomen Valley School District did not respond to multiple phone and e-mail messages. In total, eight of the 12 public school districts agreed to participate.

Certified teachers from the following private schools and daycares were contacted: Bethany Christian School, Bethlehem Christian School, Delaware County Christian School, Grace Assembly Daycare, Montgomery School, Penn Christian Academy, Renaissance Academy Charter School, West-Mont Christian Academy, and Zion Lutheran Preschool. All of the private schools and daycares, except Montgomery School, agreed to participate.

The type of teaching settings selected closely correlates with the type of settings from which Valley Forge Christian College pre-service teachers come, that is, eastern United States region, urban, suburban, and rural areas, and Christian, private, and public schools. The settings also reflect the types of places the graduates teach upon certification. Applications of the results to a broader population may require a broader regional base.

Instruments

Parker's FIRESIDE Instructional Management Profile (2006) was used to measure management styles, and McNaughton's Grade Level Preference Survey (2006) was used to measure grade level preferences. In order to assess the reliability of the

instruments, 30 pre-service teachers completed the assessments. Measures of internal consistency came from splits of the test administered once. Cronbach's alpha was used to determine the reliability coefficient for both instruments. The average correlations among items on the instruments were 0.74 and 0.97, respectively. (See Appendix E for further information regarding reliability.) Parker's FIRESIDE Instructional Management Profile is an adaptation of Parker's Learning Style Profile (2005). The FIRESIDE Instructional Management Profile contains a series of 40 questions, to which respondents choose on a 1 to 5 Likert scale. The questions reflect one of four instructional management styles: Facilitator of Independence, Resource Expert, Supportive Instructor, and Dynamic Engager. Parker's FIRESIDE Instructional Management Profile is designed for classroom teachers, but it is similar to Hersey and Blanchard's Situational Leadership Model (1969) used in the business community. The Grade Level Preference Survey is a 21-question binary survey where the respondents select a response that indicates their preference for teaching either in the lower (PreK-3) or upper (4-8) grade levels.

The profile and survey were completed electronically. Participants received an invitation through Valley Forge Christian College's webmail to click on a URL link to the Profiles and Preferences survey. The survey was a composite of general information questions, Parker's FIRESIDE Instructional Management Profile (2006), and McNaughton's Grade Level Preference Survey (2006). If participants requested, they received feedback that indicated both their instructional management style and their grade level preference. Data was downloaded into an Excel document for analysis.

Procedures

Upon approval of the dissertation prospectus and proposal, the researcher contacted the superintendents or principals of the schools listed under the *Participants* heading. The researcher followed the phone call with an e-mail letter to the superintendent or principal (see Appendix G). The researcher obtained names and e-mail addresses of PreK-8 teachers from each school who might participate. There were 3546 PreK-8th grade teachers employed in the 12 public school districts and nine private and Christian schools; however, some schools and school districts declined participation. Thus, only 1466 PreK-8th grade teachers were potential participants. The researcher e-mailed a letter of information and instructions to the PreK-8th grade teachers (see Appendix H), including the link to complete the survey. By clicking on the link, teachers consented to participate in the study. Teachers completed the information section (gender, age, number of years taught, current grade taught, grade preference, subject(s) taught, highest degree completed, and satisfaction levels with teaching, grade levels of students, school location, colleagues, and administration). Following the information section, teachers completed the questions for Parker's FIRESIDE Instructional Management Profile (2006) and McNaughton's Grade Level Preference Survey (2006). The survey took about 15 minutes to complete, and participants were allowed to take the survey only once. If they desired, respondents could request a response with information on their instructional management style and grade level preference (see Appendix I). Otherwise, the survey was anonymous. One week after the initial e-mail invitation was sent, teachers who might not have completed the survey received a second e-mail to

remind them and encourage them to complete the survey. All teachers received a final e-mail thanking them for their interest and participation.

Process for Data Analysis

Teachers completed the survey by clicking on a URL link for a Zoomerang™ survey. The researcher downloaded the data from Zoomerang™ into an Excel document for analysis and interpretation. The Excel document tallied questions pertaining to the four teaching styles from Parker's FIRESIDE Instructional Management Profile (2006) and lower or upper grade level preferences from McNaughton's Grade Level Preference Survey (2006). If teachers supplied their e-mail address indicating their request for individual feedback on their teaching profile and preferences, the researcher sent those results. The e-mail feedback included a colored bar graph indicating their teaching profile and preferences along with a description of the four instructional management profiles. Using Excel, the researcher made numerous comparisons, such as the relationships between teaching styles and grade level preferences, teaching styles and gender, and teaching styles and subjects taught. The information was used to help answer the research questions:

1. Are different instructional methods more developmentally appropriate for different age levels, if students in the same grade level function developmentally in similar ways?
2. What are the distinguishing instructional management styles between teachers who choose to teach at lower grade levels (PreK-3) and teachers who choose to teach at upper grade levels (4-8)?

3. Do other factors correlate with instructional management styles (i.e., current grade level of instruction, gender, satisfaction with teaching, subject area of instruction, and years of experience)?
4. Although teachers use different instructional management styles, do they have a natural preference for a particular management style?
5. Could an instructional management tool help pre-service teachers make an informed choice based on grade level preferences of teachers with matching instructional management profiles who are already in the field?

Summary

This chapter presented a description of the methodology utilized in this research effort. The purpose of this chapter was to state the hypothesis and to describe the participants, the survey instruments, the procedure for gathering data, and the program design for data analysis. The goal of gathering data from the survey research is to answer the questions proposed in the research study.

CHAPTER IV

Analysis of Data and Study Results

The purpose of this chapter is to present the findings of the data gathered from the participants who completed the profile and preference survey. The survey was composed of three parts: general information questions, Parker's FIRESIDE Instructional Management Profile (2006), and McNaughton's Grade Level Preference Survey (2006). Parker's FIRESIDE Instructional Management Profile was used to identify instructional management profiles (see Appendices A and B). McNaughton's Grade Level Preference Survey was used to identify grade level preferences (see Appendices C and D). The survey questions were designed in order to answer the research questions identified in Chapter 1 of this study. Over 200 teachers completed the survey. Tables and graphs display the data procured from survey participants.

Data Organization

Using Excel, the following general information was procured from the first part of the survey:

Gender	Male Female
Age	20-25 26-30 31-40 41-50 51+

Number of Years Taught	0-1 1-2 2-3 3-5 5-10 10+
Current Grade You Are Teaching	PreK K 1st 2nd 3rd 4th 5th 6th 7th 8th more than one grade but mostly PreK-3 more than one grade but mostly 4-8 other
General Grade Preference	PreK-3 4-8
How satisfied are you with teaching?	Not very satisfied Moderately satisfied Very satisfied
As applicable, how satisfied are you with teaching upper grade level students (4-8)?	Not very satisfied Moderately satisfied Very satisfied Not applicable
As applicable, how satisfied are you with teaching lower grade level students (PreK-3)?	Not very satisfied Moderately satisfied Very satisfied Not applicable
How satisfied are you with the physical environment of your classroom?	Not very satisfied Moderately satisfied Very satisfied
How satisfied are you with the location of your school?	Not very satisfied Moderately satisfied Very satisfied
How satisfied are you with your colleagues?	Not very satisfied Moderately satisfied Very satisfied
How satisfied are you with your administration?	Not very satisfied Moderately satisfied Very satisfied

Subject(s) Taught (check all that apply)	Art Language Arts (Reading/Writing) Mathematics Music Physical Education Science Social Studies (History) Special Needs Students Other
Public School District	Boyertown Downingtown Great Valley Methacton Norristown Owen J. Roberts Perkiomen Valley Phoenixville Pottsgrove Pottstown Spring-Ford Other Public School Not Public
Private School	Delaware County Christian School Grace Nursery and Daycare Montgomery School Penn Christian Academy Renaissance Academy Charter School West-Mont Christian Academy Zion Baptist Preschool Other Private School Not Private
Highest Degree Completed	Bachelors Degree Masters Degree Educational Specialist Degree Doctoral Degree Other

Statistical Procedures

The two variables in this research study were teachers' instructional management styles (attribute independent variable) and their preferences for teaching either lower

(PreK-3) or upper (4-8) elementary grade students (dependent variable). Because two variables were being classified, the Two-Variable Chi-Square was used for this research. The proportion of teachers from one group in the various categories was compared with the proportion of teachers from another group (Siegal & Castellan, 1998, p. 111). Specifically, the proportion of teachers in the four instructional management styles who preferred to teach lower elementary students was compared with the proportion of teachers in the four instructional management styles who preferred to teach upper elementary students. The program Analyse-It for Microsoft Excel™ was used to compute the Chi Square. The Cramér Coefficient was used to learn the extent to which teachers' instructional management styles and grade level preferences were related (Siegal & Castellan, p. 224).

Of the 1466 teachers who received an e-mail and link to complete the electronic survey, 15% (224) of the teachers participated. Since some of the teachers scored in more than one quadrant, the total number of instructional management styles represented was 251. The Chi Square analysis of grade level preferences by instructional management styles was significant ($X^2 = 15.68$; $df = 3$; $p = 0.0013$). The hypothesis was supported that the proportion of teachers with various instructional management styles who preferred to teach lower grades differed from the proportion of teachers who preferred upper grades. Thus, the null hypothesis was rejected. The proportions of the four instructional management styles of teachers who preferred to teach lower elementary grades was not the same as the proportions for teachers who preferred to teach upper elementary grades.

Table 1

Instructional Management Style Preference

Style	*N*	%
FI	25	10%
RE	21	8%
SI	128	51%
DE	77	31%

Note. $N = 251$

Instructional Management Style preferences are reported in Table 1 and Figure 1. The Supportive Instructor (SI) style was preferred by 51% of the sample. The Dynamic Engager (DE) style was preferred by 31% of the sample. These two styles accounted for 82% of the respondents' preferences.

Figure 1

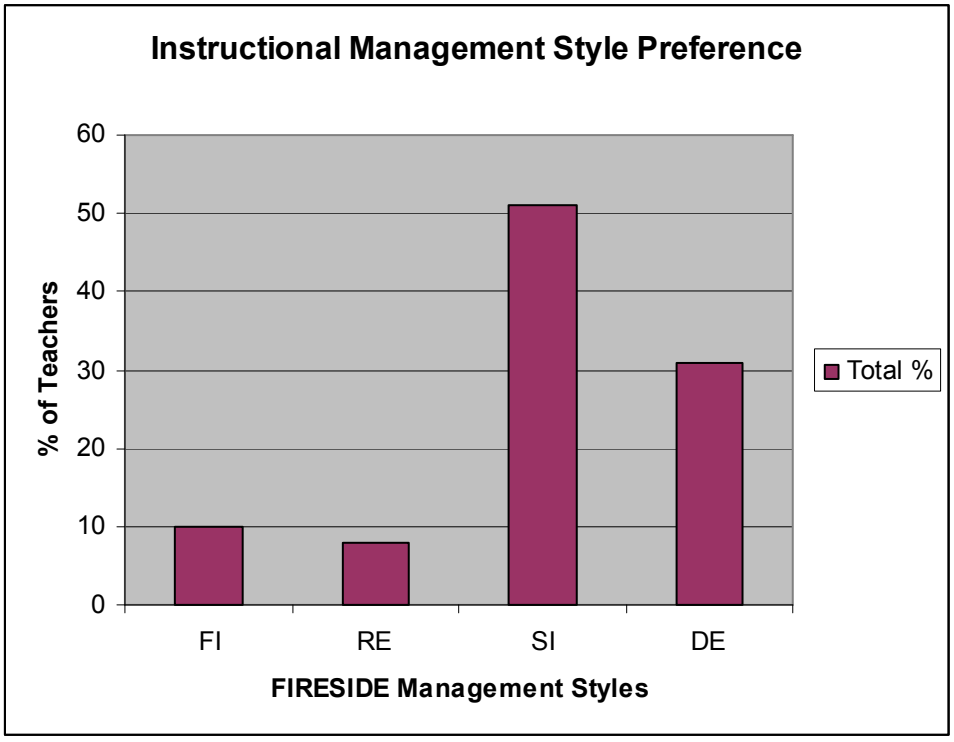

Instructional Management Style Preference
60
50
40
30
20
10
0
% of Teachers
FI
RE
SI
DE
FIRESIDE Management Styles
Total %

Table 2

Instructional Management Style Preference of Teachers Who Preferred PreK-3 (Lower)

Style	*N*	%
FI	8	7%
RE	3	3%
SI	54	49%
DE	45	41%

Note. $N = 110$

Table 3

Instructional Management Style Preference of Teachers Who Preferred 4-8 (Upper)

Style	*N*	%
FI	17	12%
RE	18	13%
SI	74	52%
DE	32	23%

Note. $N = 141$

Table 4

Instructional Management Styles Comparison of Teachers and Their Grade Level Preferences

Style	Lower *N*	%	Upper *N*	%
FI	8	3.2%	17	6.8%
RE	3	1.2%	18	7.2%
SI	54	21.5%	74	29.5%
DE	45	17.9%	32	12.7%

Note. $N = 251$

The Chi Square analysis of grade level preferences by instructional management styles was significant ($X^2 = 15.68$; $df = 3$; $p = 0.0013$). As seen in Tables 2, 3, and 4 (see also Figure 2), 81.6% of teachers who preferred to teach in either grade level were Supportive Instructors (SI) and Dynamic Engagers (DE). Fourteen-percent of all teachers were Facilitators of Independence (FI) or Resource Experts (RE) who preferred to teach in the upper grade levels.

Figure 2

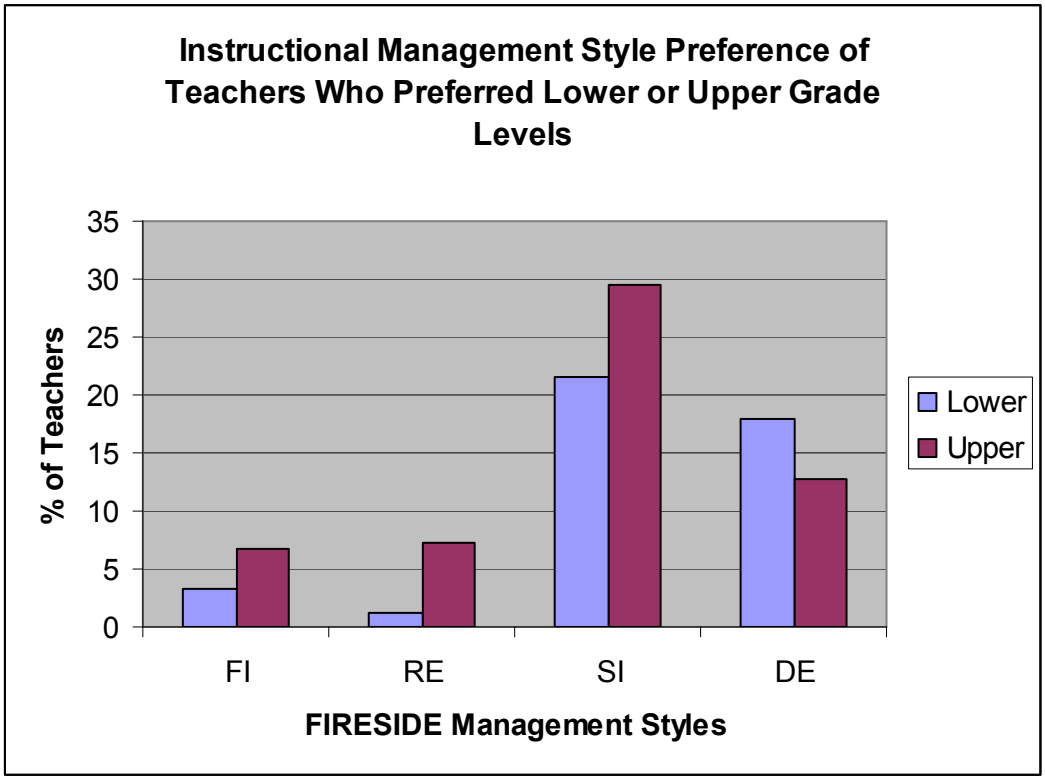

Instructional Management Style Preference of Teachers Who Preferred Lower or Upper Grade Levels
% of Teachers
35
30
25
20
15
10
5
0
FI
RE
SI
DE
FIRESIDE Management Styles
Lower
Upper

Table 5

Instructional Management Style Preference of Current PreK-3 Teachers

Style	*N*	%
FI	11	10%
RE	6	5%
SI	55	49%
DE	40	36%

Note. $N = 112$

Table 6

Instructional Management Style Preference of Current 4-8 Teachers

Style	*N*	%
FI	14	11.3%
RE	13	10.5%
SI	62	50%
DE	35	28.2%

Note. $N = 124$

Tables 5 and 6 (see also Figure 3) indicate instructional management styles of current lower and upper grade level teachers. Current PreK-3 teachers and 4-8 teachers were Supportive Instructors (SI) (49% and 50%) and Dynamic Engagers (DE) (36% and

28.2%). The Resource Expert (RE) style had the smallest percentages of teachers in PreK-8 (5% and 10.5%).

Figure 3

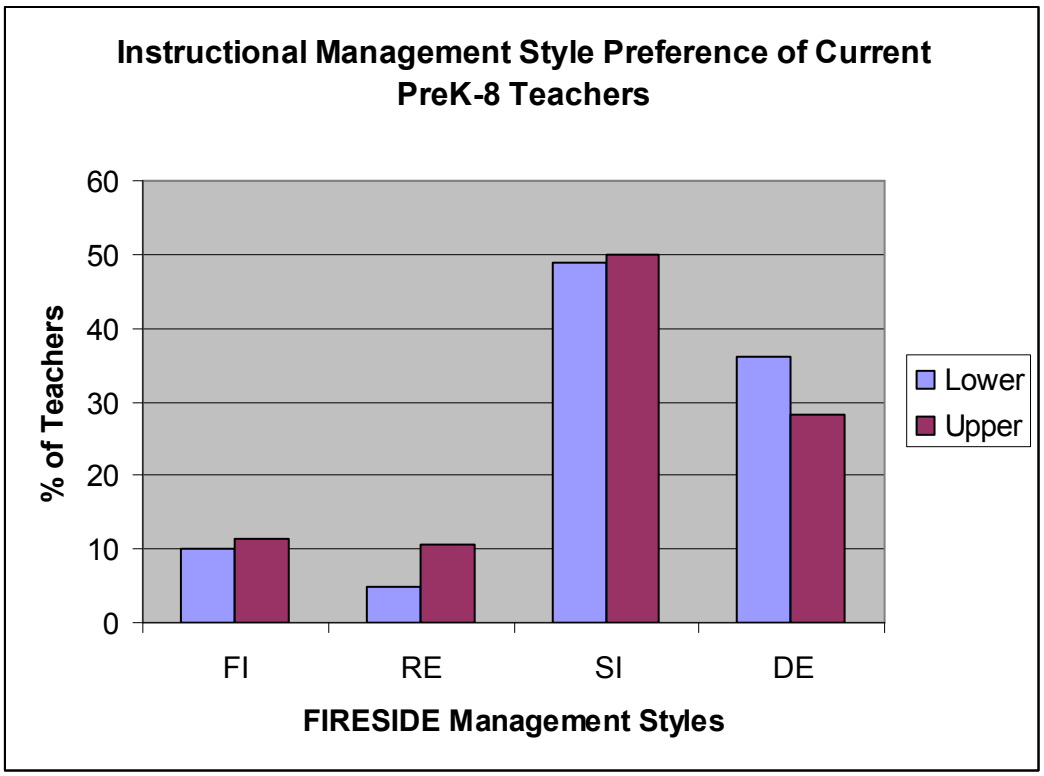


Table 7

Instructional Management Style Preference Comparison of Current PreK-3 Teachers

Style	Lower *N*	%	Upper *N*	%
FI	5	4.4%	6	5.4%
RE	0	0%	6	5.4%
SI	31	27.7%	24	21.4%
DE	30	26.8%	10	8.9%

Note. $N = 112$

Table 8

Instructional Management Style Preference Comparison of Current 4-8 Teachers

Style	Lower *N*	%	Upper *N*	%
FI	3	2.4%	11	8.9%
RE	3	2.4%	10	8.1%
SI	15	12.1%	47	37.9%
DE	14	11.3%	21	16.9%

Note. $N = 124$

Tables 7 and 8 (see also Figures 4 and 5) differ from Table 4 (see also Figure 2) in that Table 4 reports the instructional management style of teachers who *preferred* to teach in either the lower or upper grade levels, even though they may not currently be teaching at these preferred levels. The first and second rankings were the same in all

samples (Supportive Instructor followed by Dynamic Engager). Teachers who currently teach in either of the grade levels ranked first as Supportive Instructors (SI) and second as Dynamic Engagers (DE). The percentages of current teachers who were Facilitators of Independence (FI) or Resource Experts (RE) was lower for PreK-3 and 4-8 teachers compared to the other instructional management styles. The Chi Square analysis of instructional management styles and current PreK-3 teachers was significant ($X^2 = 13.85$; $df = 3$; $p = 0.0031$). The Chi Square analysis of instructional management styles and current 4-8 teachers was not significant ($X^2 = 3.38$; $df = 3$; $p = 0.3364$).

Figure 4

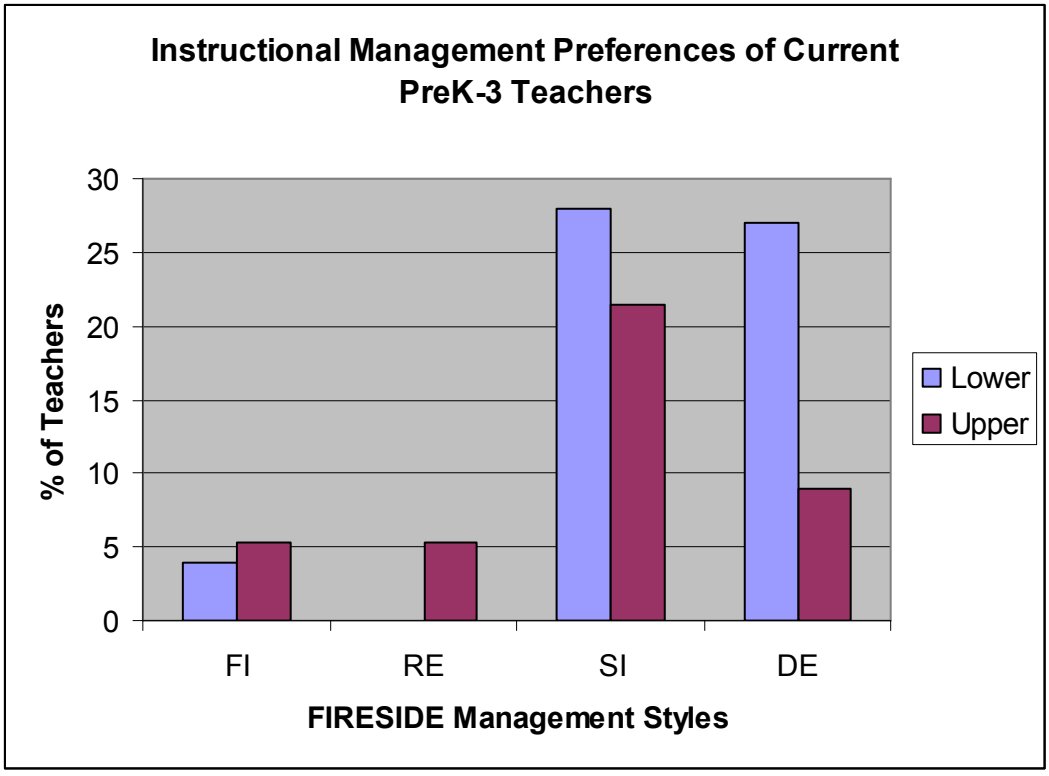


Figure 5

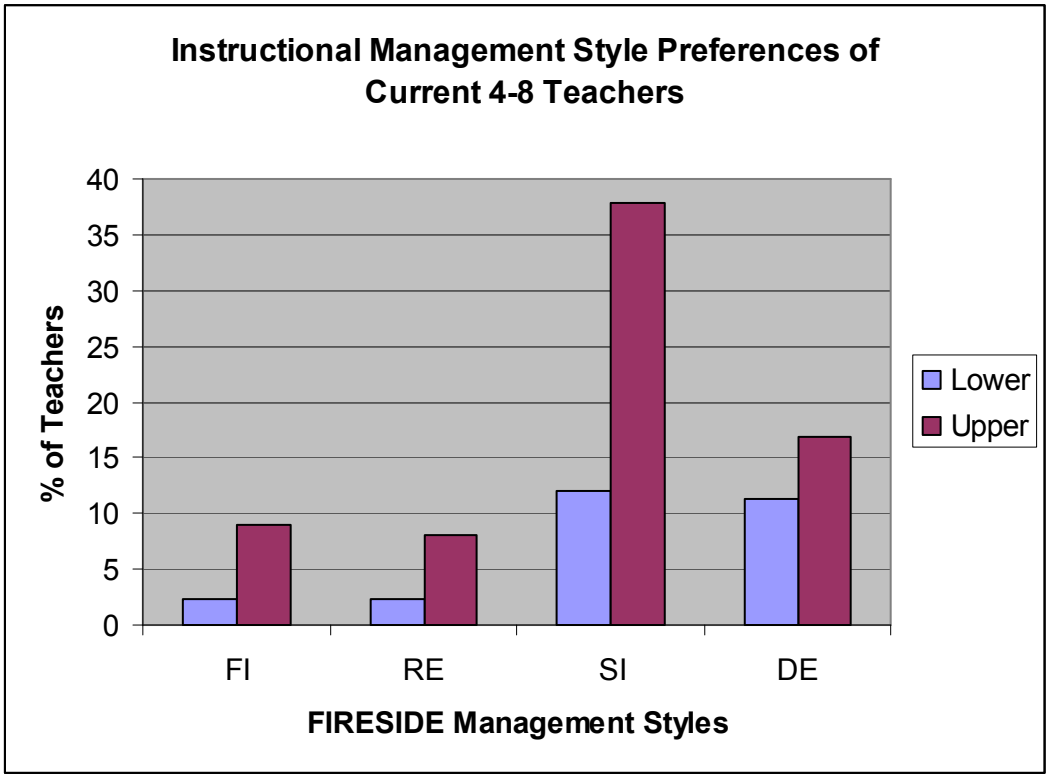

Instructional Management Style Preferences of Current 4-8 Teachers
% of Teachers
40
35
30
25
20
15
10
5
0
FI
RE
SI
DE
FIRESIDE Management Styles
Lower
Upper

Table 9

Instructional Management Styles and Current Grades Taught

Style	PreK	K	1	2	3	4	5	6	7	8
FI	0	0	3	4	3	3	1	1	2	3
RE	0	0	1	0	4	2	1	1	2	2
SI	2	10	13	14	8	8	10	7	6	12
DE	4	10	8	5	4	6	6	4	4	4

Note. $N = 182$

Table 10

Percent of Instructional Management Styles and Current Grades Taught

Style	PreK	K	1	2	3	4	5	6	7	8
FI	0	0	12	17.3	15.8	15.8	5.55	7.7	11.1	14.3
RE	0	0	4	0	21.1	10.5	5.55	7.7	33.3	9.5
SI	33.3	50	52	61	42	42.1	55.6	53.8	33.3	57.1
DE	66.7	50	32	21.7	21.1	31.6	33.3	30.8	22.2	19.1

Note. $N = 182$

As seen in Tables 9 and 10 (see also Figure 6), the percentage of teachers who were Dynamic Engagers (DE) was highest in Pre-K and Kindergarten. The percentage of Dynamic Engagers (DE) generally declined as the grade level increased from PreK through 3rd grade, increased in grades 4 and 5, then declined again. The percentage of

Resource Experts (RE) peaked at grade 3 (21.1%) and grade 7 (33.3%). The percentage of Supportive Instructors (SI) remained relatively high and stable throughout the grades, ranging from 33.3% to 61%. The percentage of Facilitators of Independence (FI) remained relatively low and stable from first grade through eighth grade, ranging from 5.55% to 17.3%.

Figure 6

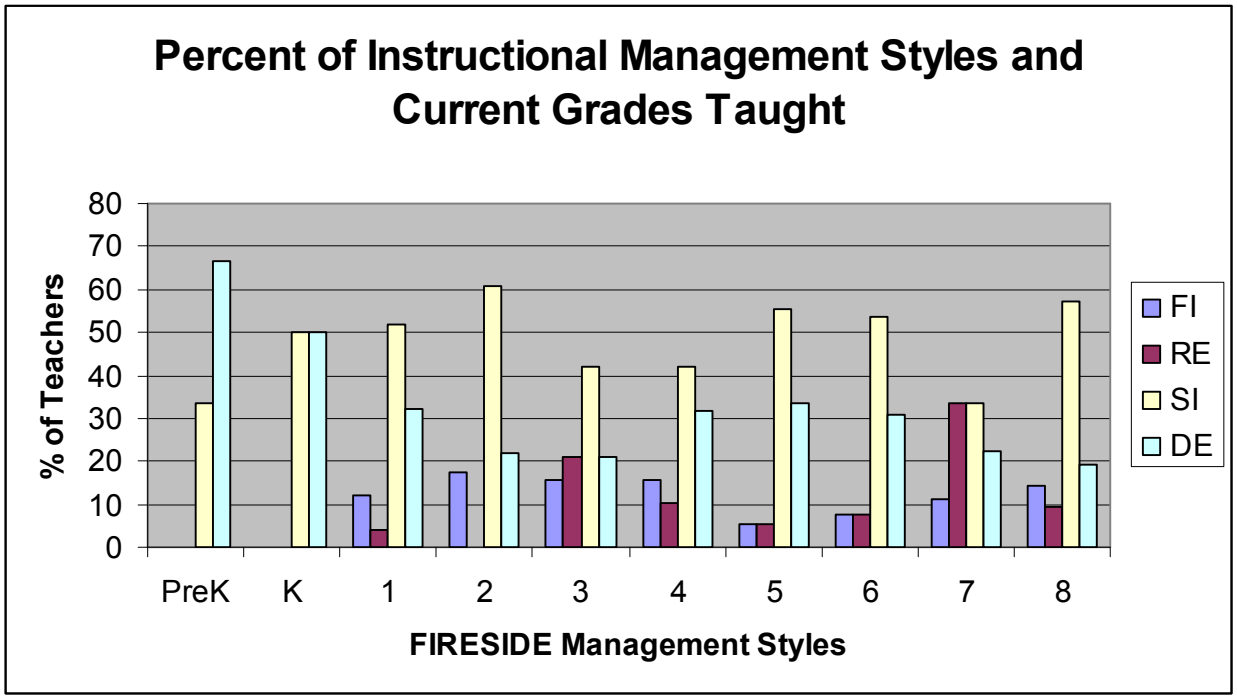


Table 11

Percent and Rank of Instructional Management Styles by Gender

Style	Male *N*	%	Rank	Female *N*	%	Rank
FI	8	20%	2	17	8.0%	3
RE	5	12.5%	4	16	7.6%	4
SI	21	52.5%	1	108	51.2%	1
DE	6	15%	3	70	33.2%	2

Male $N = 40$
Female $N = 211$

Table 11 (see also Figure 7) provides a summary of instructional management style preferences by gender. The results indicated that 52.5% of males and 51.2% of females preferred a Supportive Instructor (SI) style. The Supportive Instructor (SI) style ranked first for both males and females. Females also favored a Dynamic Engager (DE) management style (33.2%), but only 7.6% of females were identified as Resource Experts (RE). In addition to the Supportive Instructor (SI) style, males also favored the Facilitator of Independence (FI) style (20%). The Chi Square for instructional management styles and gender was statistically significant ($X^2 = 9.47$; $df = 3$; $p = 0.0237$). The Cramér Coefficient was 0.19.

Figure 7

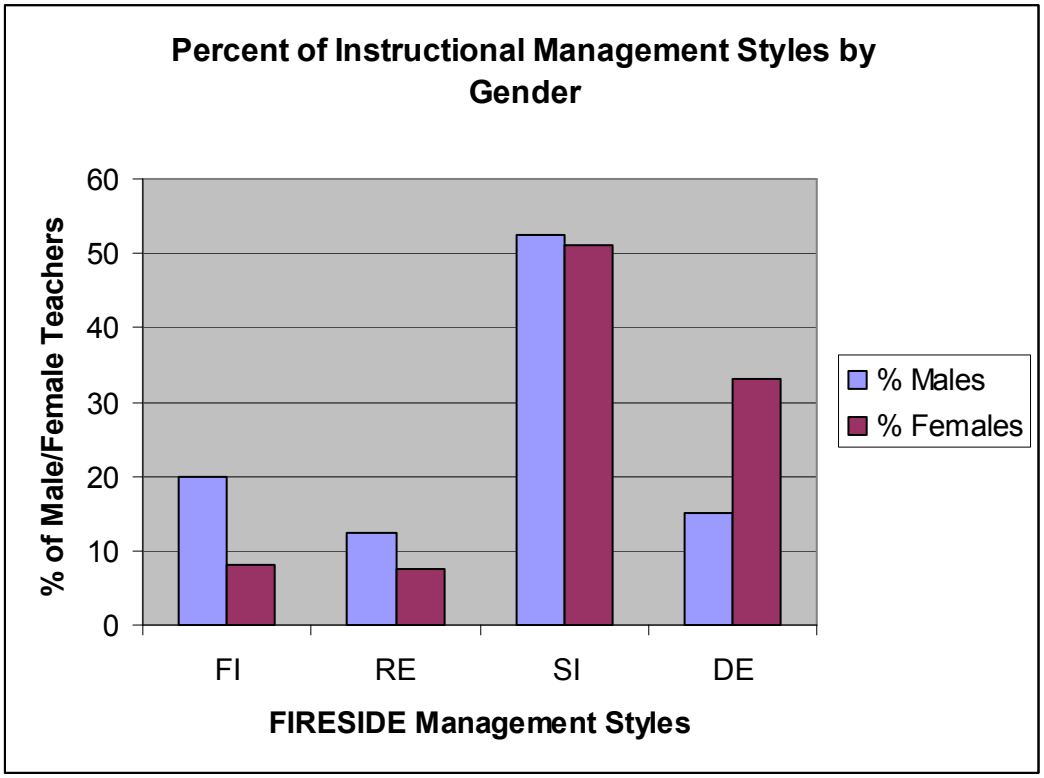

Percent of Instructional Management Styles by Gender
% of Male/Female Teachers
60
50
40
30
20
10
0
FI
RE
SI
DE
FIRESIDE Management Styles
% Males
% Females

Table 12

Grade Level Preferences of Instructional Management Styles by Gender

Style	Male *N* Lower	%	Male *N* Upper	%
FI	2	5%	6	15%
RE	1	2.5%	4	10%
SI	4	10%	17	42.5%
DE	3	7.5%	3	7.5%

Style	Female *N* Lower	%	Female *N* Upper	%
FI	7	3.3%	10	4.7%
RE	3	1.4%	13	6.2%
SI	50	23.7%	58	27.5%
DE	42	19.9%	28	13.3%

Male $N = 40$
Female $N = 211$

Table 12 (see also Figures 8 and 9) provides a summary of intercorrelations among instructional management styles, gender, and grade level preferences. More males indicated upper grade level preferences than lower grade level preferences. Also, the percentage of males who preferred upper grade levels was 75%, while the percentage of females who preferred upper grade levels was 52%. The instructional management style with the largest percentage of males was the Supportive Instructor (SI) for upper grades (42.5%). The instructional management style with the largest percentage of females was also the Supportive Instructor (SI) for upper grades (27.5%). The Chi

Square for instructional management styles for males and grade level preferences was not statistically significant ($X^2 = 2.46$; $p = 0.4819$). The Chi Square for instructional management styles for females and grade level preferences was statistically significant ($X^2 = 9.95$; $p = 0.0190$). The Chi Square for the instructional management styles of females who preferred lower grade levels and males who preferred upper grade levels was significant ($X^2 = 15.66$; $df = 3$; $p = 0.0013$). The Cramér Coefficient was 0.34.

Figure 8

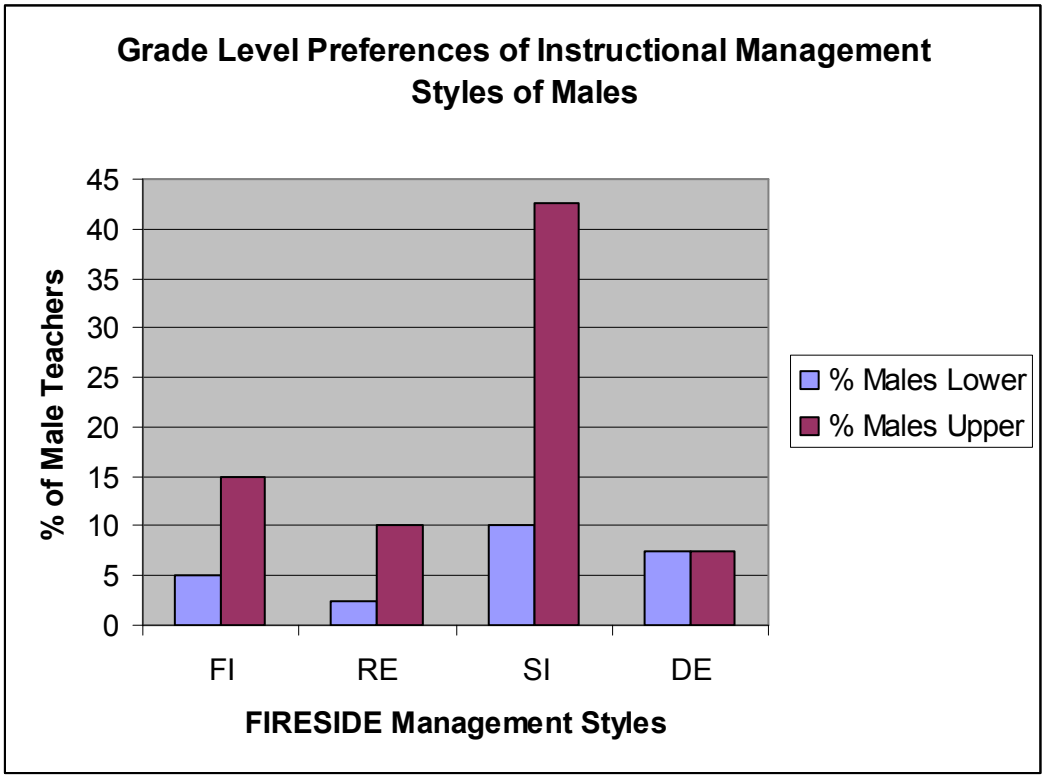


Figure 9

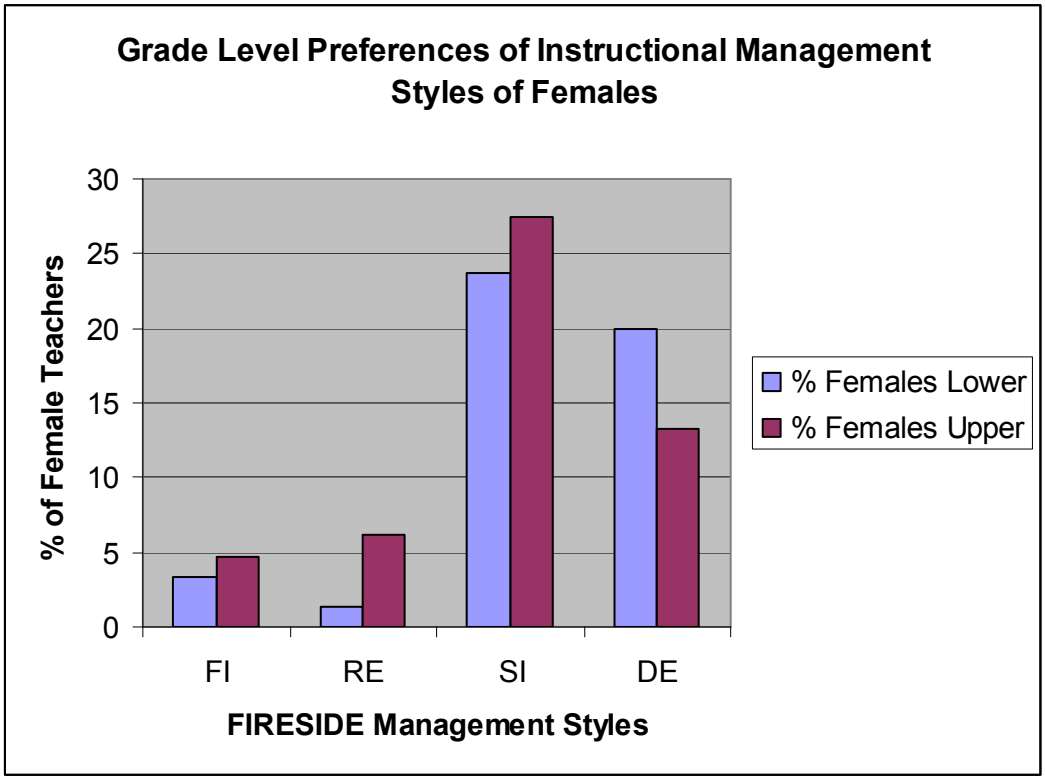

Grade Level Preferences of Instructional Management Styles of Females
% of Female Teachers
30
25
20
15
10
5
0
FI
RE
SI
DE
FIRESIDE Management Styles
% Females Lower
% Females Upper

Table 13

Instructional Management Style, Lower Grade Preference and Satisfaction With Teaching Levels

Style	*N*	Not Very Satisfied	*N*	Moderately Satisfied	*N*	Very Satisfied
FI	0	0%	4	50%	4	50%
RE	0	0%	2	67%	1	33%
SI	0	0%	13	24%	41	76%
DE	0	0%	13	29%	32	71%

Note. $N = 110$

Table 14

Instructional Management Style, Upper Grade Preference and Satisfaction With Teaching Levels

Style	*N*	Not Very Satisfied	*N*	Moderately Satisfied	*N*	Very Satisfied
FI	1	6%	4	22%	13	72%
RE	0	0%	2	11%	16	89%
SI	1	1%	14	19.5%	58	79.5%
DE	0	0%	6	33%	12	67%

Note. $N = 127$

As seen in Tables 13 and 14 (see also Figures 10 and 11), almost all teachers, regardless of teaching level, were *moderately* or *very satisfied* with teaching. Facilitators

of Independence (FI) and Supportive Instructors (SI) were the only management styles to indicate dissatisfaction with teaching. Resource Experts (RE) had the highest percentage of being *very satisfied* with teaching in upper levels (89%). Fifty percent of Facilitators of Independence (FI) and 33% of Resource Experts (RE) indicated being *very satisfied* teaching in lower grades. Dynamic Engagers had the lowest percentage (67%) of being *very satisfied* teaching in upper grades. The Chi Square analysis of satisfaction of teachers who preferred lower grades was not significant ($X^2 = 3.31$; $p = 0.3462$). The Chi Square analysis of satisfaction of teachers who preferred upper grades was not significant ($X^2 = 5.38$; $p = 0.4965$).

Figure 10

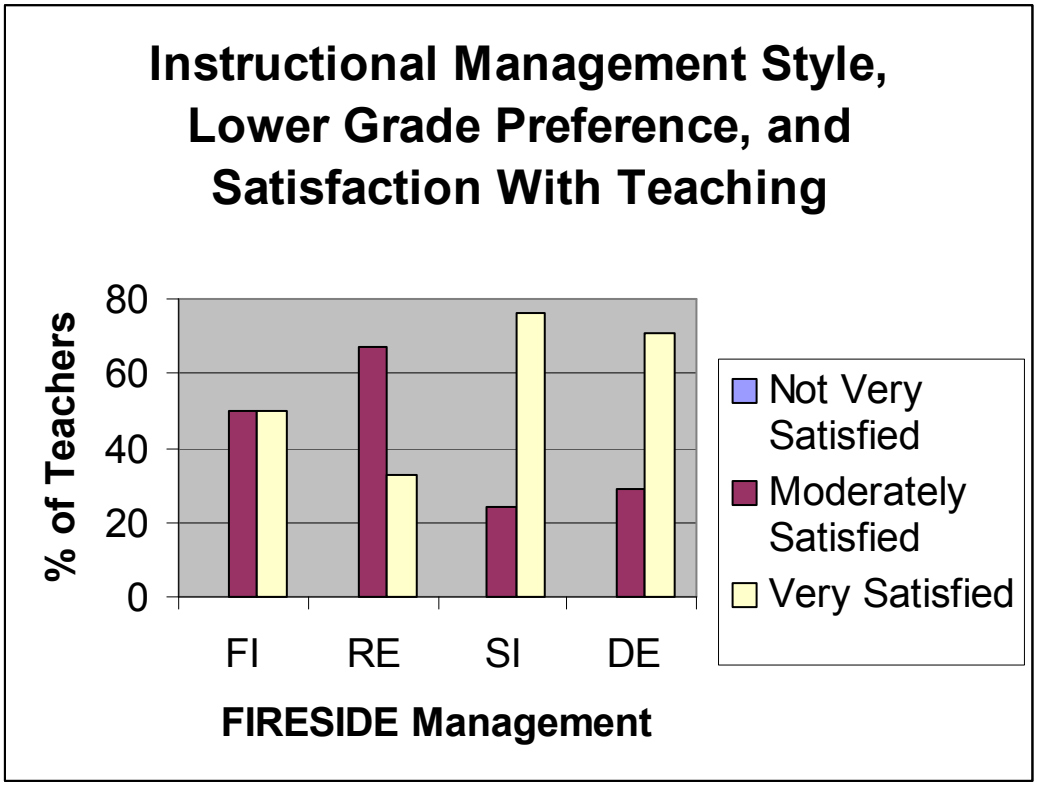

Instructional Management Style, Lower Grade Preference, and Satisfaction With Teaching
% of Teachers
80
60
40
20
0
FI
RE
SI
DE
FIRESIDE Management
Not Very Satisfied
Moderately Satisfied
Very Satisfied

Figure 11

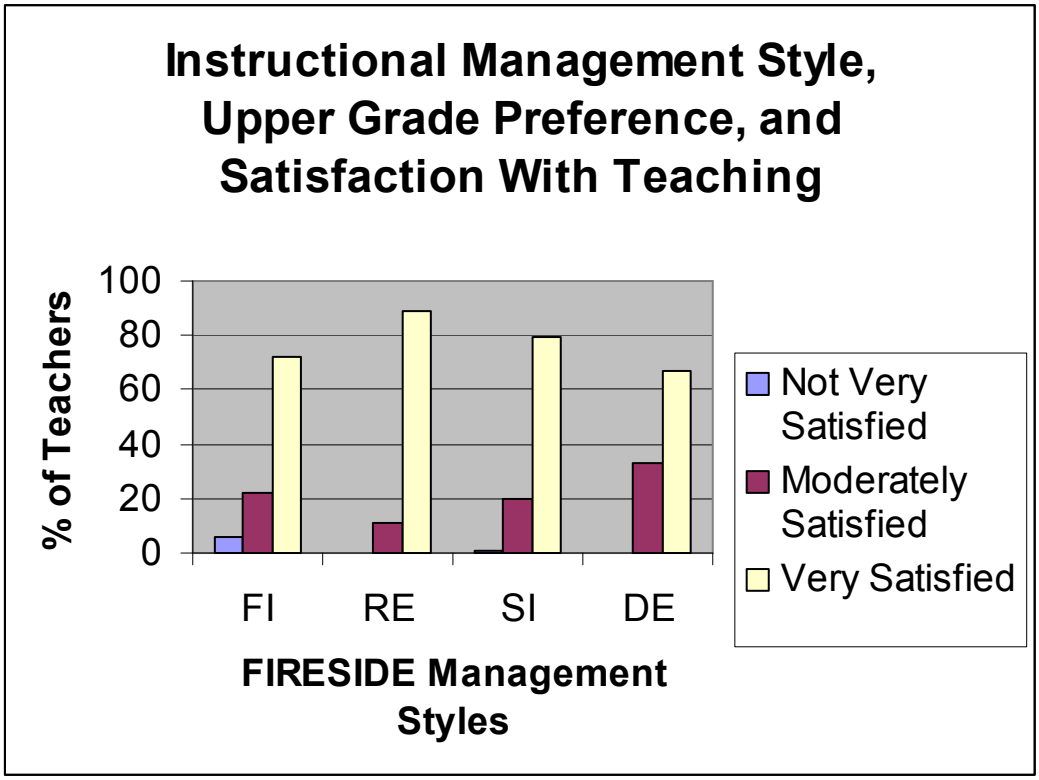

Instructional Management Style, Upper Grade Preference, and Satisfaction With Teaching
% of Teachers
100
80
60
40
20
0
FI
RE
SI
DE
FIRESIDE Management Styles
Not Very Satisfied
Moderately Satisfied
Very Satisfied

Table 15

Current PreK-3 Teachers' Grade Level Preferences and Satisfaction With Teaching

Level Preference	*N*	Not Very Satisfied	*N*	Moderately Satisfied	*N*	Very Satisfied
Lower	0	0%	13	24%	42	76%
Upper	2	5%	5	14%	30	81%

Note. *Lower N* = 55
Upper N = 37

Table 16

Current 4-8 Teachers' Grade Level Preference and Satisfaction With Teaching

Level Preference	*N*	Not Very Satisfied	*N*	Moderately Satisfied	*N*	Very Satisfied
Lower	0	0%	11	35%	20	65%
Upper	0	0%	21	29%	51	71%

Note. *Lower N* = 31
Upper N = 72

As seen in Tables 15 and 16 (see also Figures 12 and 13), generally, the results indicated that teachers were satisfied with teaching. A small percentage (5%) of current PreK-3 teachers who preferred teaching at the upper level were *not very satisfied*. At both levels, almost all current teachers who were identified as preferring lower and upper levels of students, according to McNaughton's Grade Level Characteristic Survey, indicated they were *moderately satisfied* or *very satisfied*.

Figure 12

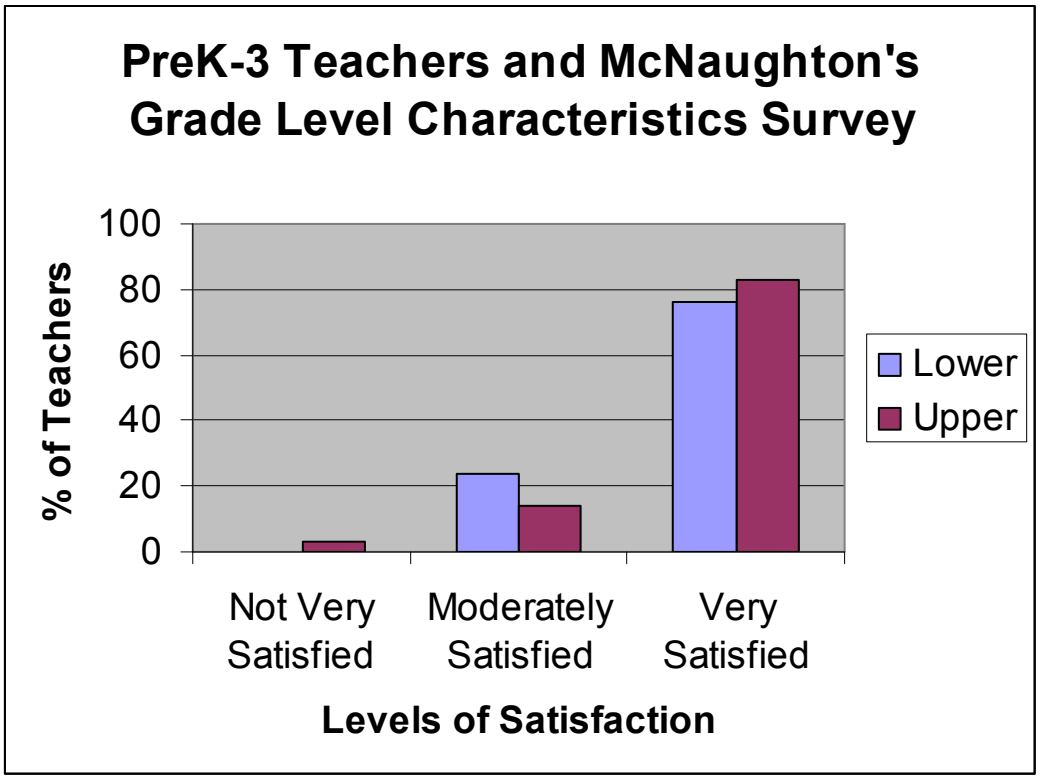

PreK-3 Teachers and McNaughton's Grade Level Characteristics Survey
% of Teachers
100
80
60
40
20
0
Not Very Satisfied
Moderately Satisfied
Very Satisfied
Levels of Satisfaction
Lower
Upper

Figure 13

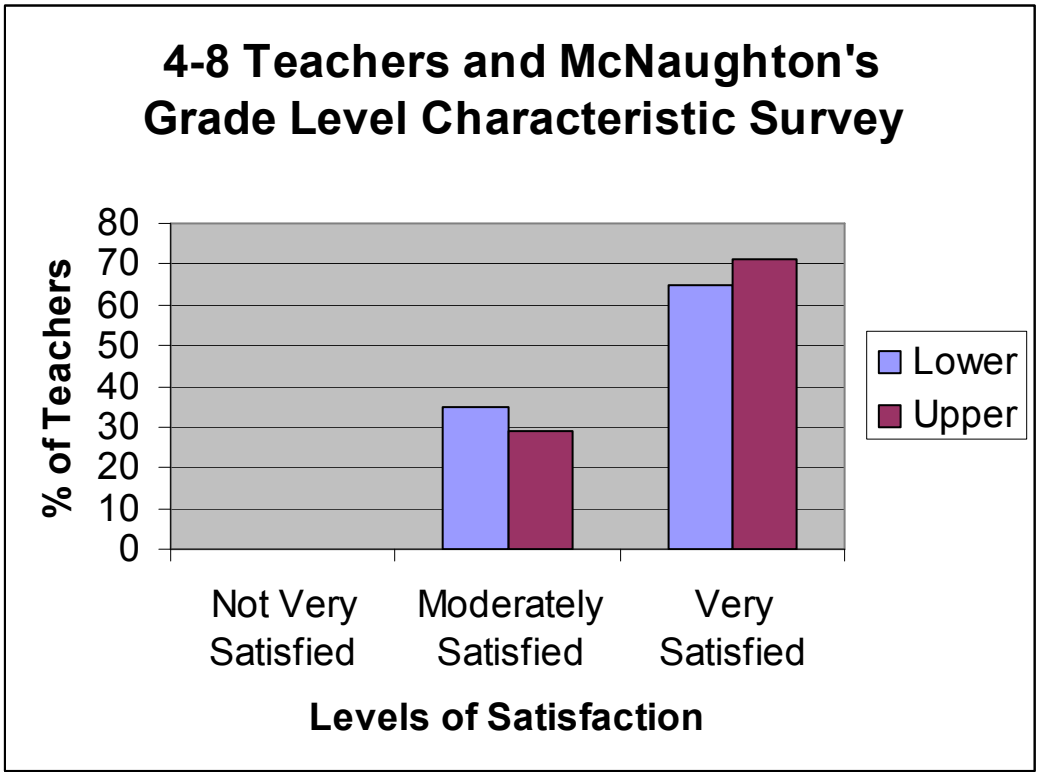

4-8 Teachers and McNaughton's Grade Level Characteristic Survey
% of Teachers
80
70
60
50
40
30
20
10
0
Not Very Satisfied
Moderately Satisfied
Very Satisfied
Levels of Satisfaction
Lower
Upper

Table 17

Current PreK-3 Teachers' Instructional Management Style and Satisfaction With Teaching

Style	*N*	Not Very Satisfied	*N*	Moderately Satisfied	*N*	Very Satisfied
FI	1	8%	5	42%	6	50%
RE	0	0%	0	0%	6	100%
SI	1	2%	6	11%	48	87%
DE	0	0%	13	32.5%	27	67.5%

Current 4-8 Teachers' Instructional Management Style and Satisfaction With Teaching

Style	*N*	Not Very Satisfied	*N*	Moderately Satisfied	*N*	Very Satisfied
FI	0	0%	3	21%	11	79%
RE	0	0%	4	31%	9	69%
SI	0	0%	21	33%	43	67%
DE	0	0%	9	28%	23	72%

Note. *Lower N* = 113
Upper N = 123

Table 17 (see also Figures 14 and 15) shows comparisons between teachers' instructional management styles, the current grades they are teaching, and their level of satisfaction. All upper grade level teachers were *moderately* and *very satisfied* with teaching. One teacher who was a Facilitator of Independence (FI) and one teacher who

was a Supportive Instructor (SI) indicated they were *not very satisfied* when teaching at lower levels. The Chi Square analysis of PreK-3 teachers' instructional management style and satisfaction was significant ($X^2 = 15.29$; $p = 0.0181$). Seventy-nine percent of Facilitators of Independence (FI) reported being *very satisfied* teaching in upper levels. Teachers who were Supportive Instructors (SI) had a higher percentage of being *very satisfied* when teaching in the lower grade levels (87%) than when teaching in the upper grade levels (67%); however, the Chi Square analysis of 4-8 teachers' instructional management style and satisfaction was not significant ($X^2 = 0.79$; $p = 0.8527$).

Figure 14

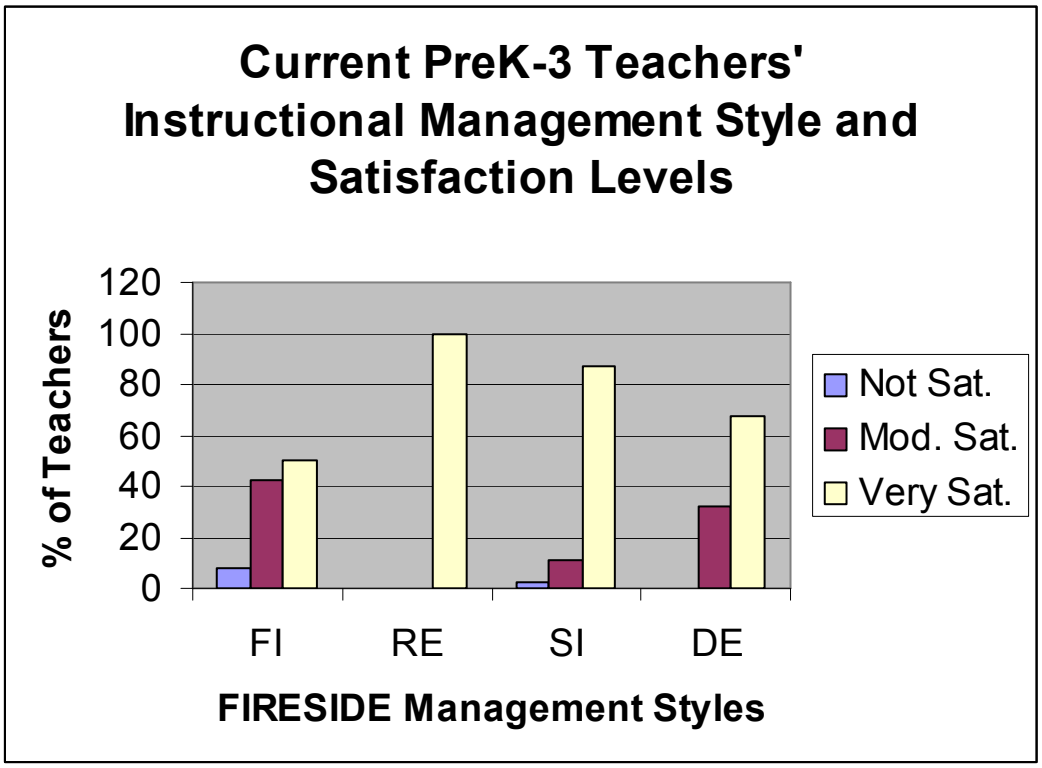


Figure 15

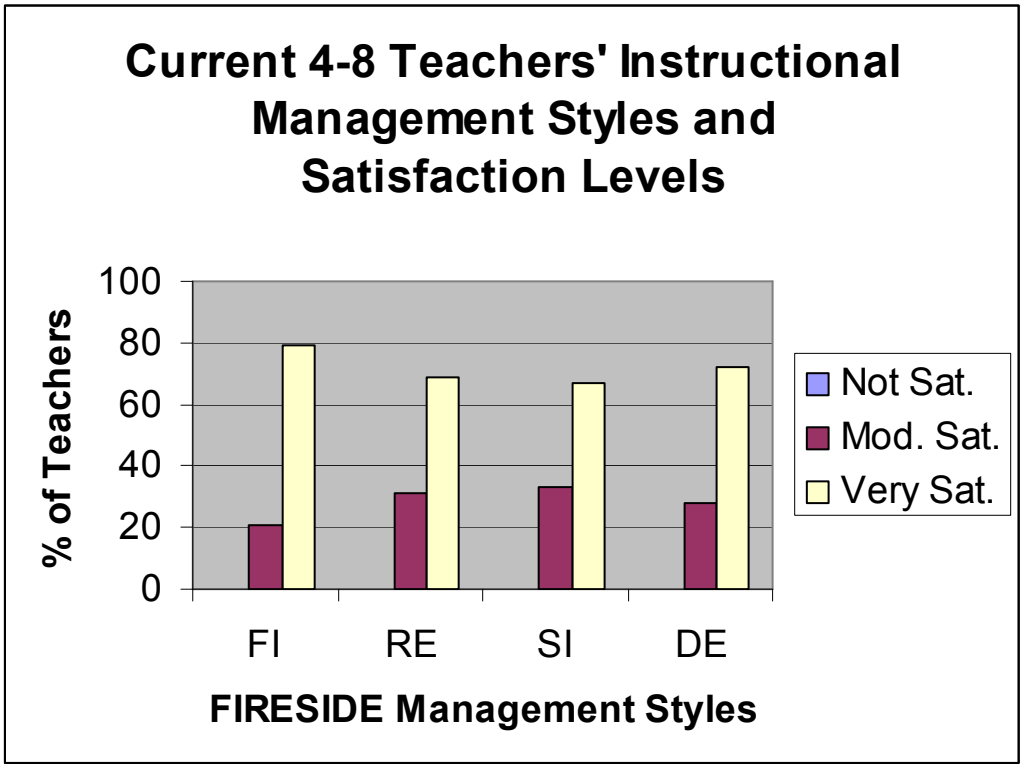

Current 4-8 Teachers' Instructional Management Styles and Satisfaction Levels
% of Teachers
100
80
60
40
20
0
FI
RE
SI
DE
FIRESIDE Management Styles
Not Sat.
Mod. Sat.
Very Sat.

Table 18

Percent of Instructional Management Styles and Special Subject Areas

Style	*N*	Art	*N*	Music	*N*	Physical Education
FI	2	11.1%	1	4%	0	0%
RE	0	0%	1	4%	1	8.3%
SI	9	50%	10	40%	4	33.3%
DE	7	38.9%	13	52%	7	58.3%

Note. $N = 55$

Table 18 (see also Figure 16) shows there were no Resource Experts (RE) teaching in the special subject area of Art. Most Art teachers were Supportive Instructors (SI) (50%). Most Music teachers were Dynamic Engagers (DE) (52%) or Supportive Instructors (SI) (40%). Most Physical Education teachers were Dynamic Engagers (DE) (33.3%). No Physical Education teachers were identified as Facilitators of Independence (FI). The Chi Square for instructional management styles and special subject areas was not statistically significant ($X^2 = 4.35$; $p = 0.6298$).

Figure 16

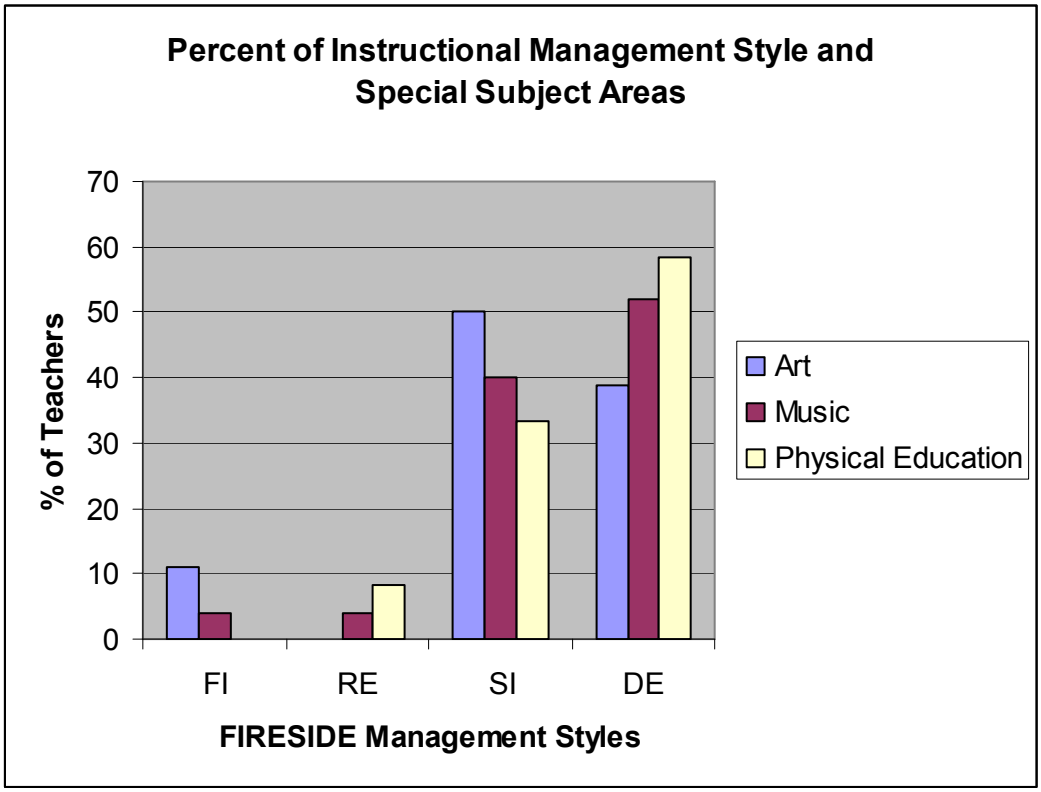


Table 19

Instructional Management Style of Language Arts Teachers and Special Area Teachers

Style	Language Arts *N*	%	Specials *N*	%
FI	16	9.5%	3	5%
RE	13	8%	2	4%
SI	87	51.5%	23	42%
DE	53	31%	27	49%

Note. *Language Arts N* = 169
Specials N = 55

As seen in Table 19 (see also Figure 17), Language Arts teachers were selected to compare with teachers who teach in the special areas of Art, Music, and Physical Education. Most classroom teachers teach in the Language Arts. The Chi Square for instructional management styles of teachers who teach in the Language Arts and teachers who teach in special subject areas was not statistically significant ($X^2 = 6.25$; $p = 0.1001$).

Figure 17

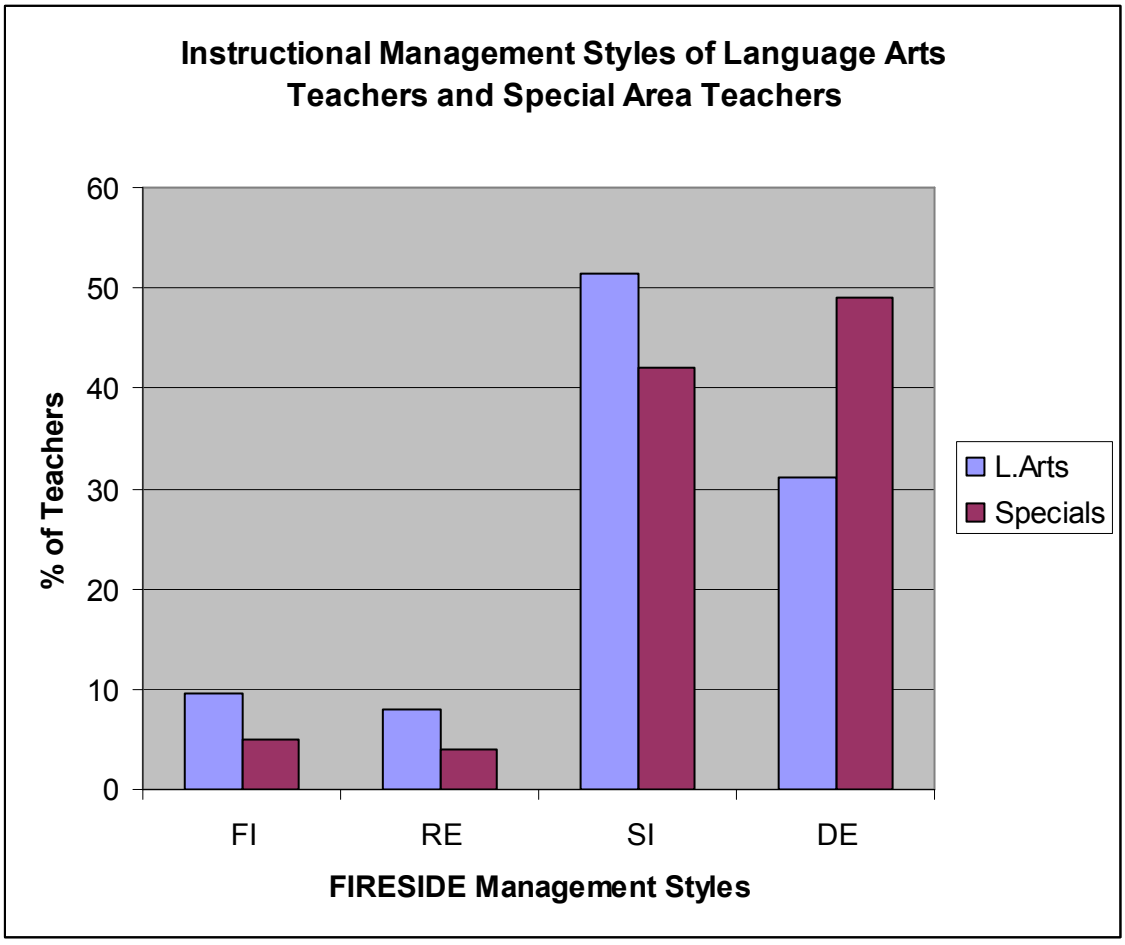


Table 20

Instructional Management Style Preference Comparison and No. of Years Taught (0-3)

Style	Lower *N*	%	Upper *N*	%
FI	2	5.9%	0	0%
RE	2	5.9%	0	0%
SI	10	29.4%	8	23.5%
DE	7	20.5%	5	14.8%

Note. $N = 34$

Table 21

Instructional Management Style Preference Comparison and No. of Years Taught (5+)

Style	Lower *N*	%	Upper *N*	%
FI	6	3.1%	15	7.7%
RE	1	0.01%	15	7.7%
SI	42	21.6%	54	27.8%
DE	35	18.1%	26	13.4%

Note. $N = 194$

As seen in Tables 20 and 21 (see also Figures 18 and 19), few teachers who taught 0-3 years were identified as Facilitators of Independence (FI) (5.9%) or Resource Experts (RE) (5.9%). Most new teachers were Supportive Instructors (SI) (52.9%). Experienced teachers who taught five or more years were also more likely to be

Supportive Instructors (SI) (49.4%) when compared to other management styles; however, experienced teachers also represented a large percentage (86%) of the total number of teachers who were identified as Facilitators of Independence (FI) and Resource Experts (RE).

Figure 18

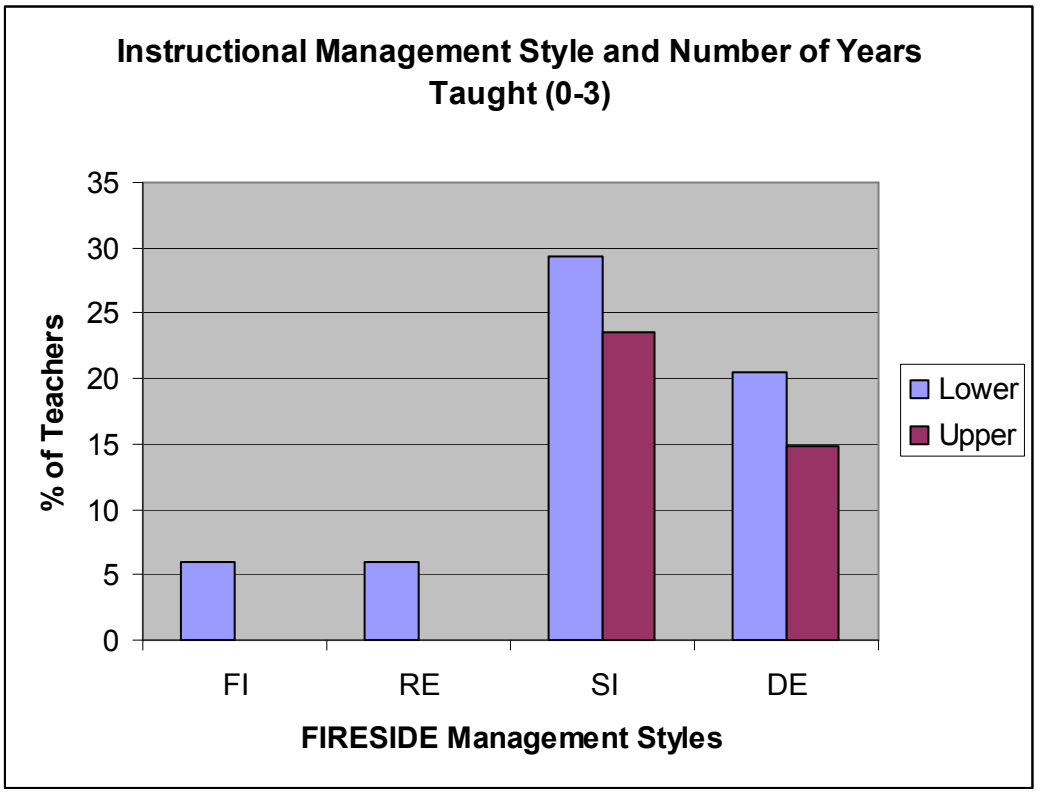


Figure 19

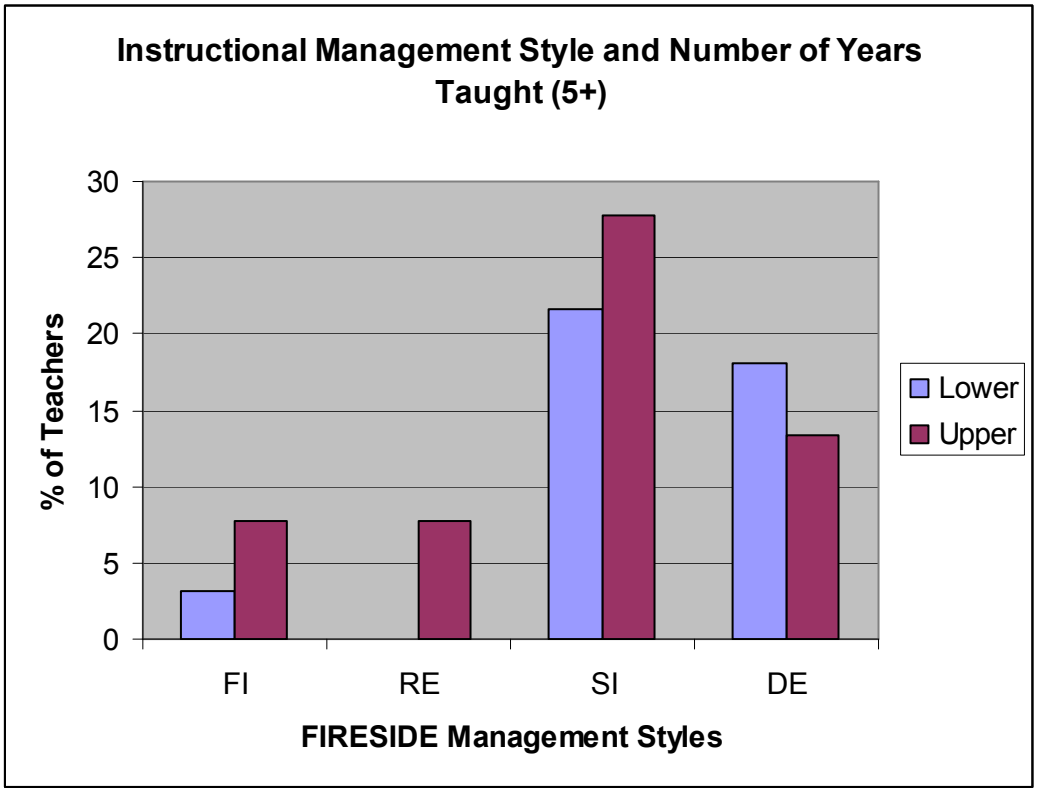


Table 22

Instructional Management Style Preference Comparison and Number of Years Taught

Style	0-3 *N*	%	5+ *N*	%
FI	2	5.9%	21	10.8%
RE	2	5.9%	16	8.3%
SI	18	53%	96	49.5%
DE	12	35.2%	61	31.4%

Note. 0-3 *N* = 34
5+ *N* = 194

As seen in Table 22 (see also Figure 20), approximately half of the teachers with 0-3 years of experience and five or more years of experience were identified as Supportive Instructors (SI) (53% and 49.5%). For both categories of teachers, the second most popular instructional management style was the Dynamic Engager (DE) (35.2% and 31.4%). The least used instructional management style for new and experienced teachers was the Resource Expert (RE) (5.9% and 8.3%). The Chi Square for instructional management styles and the number of years taught was not statistically significant (X^2 = 1.11; p = 0.7750).

Figure 20

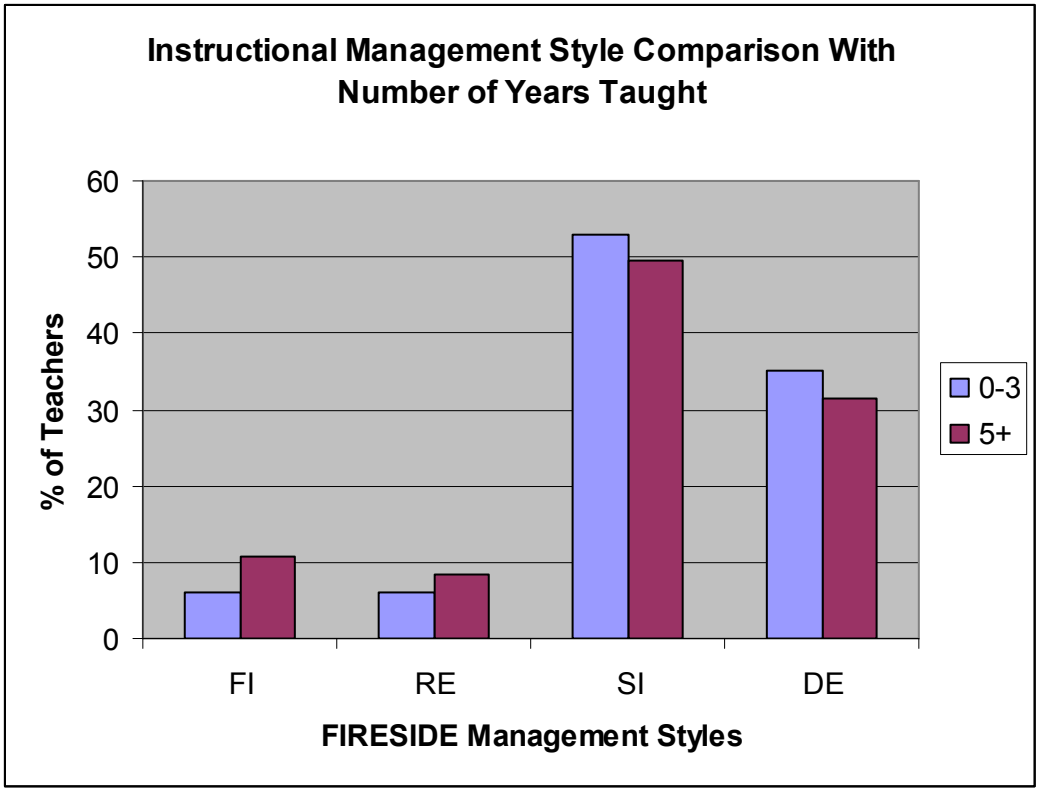


Table 23

Instructional Management Style,Yrs. Taught Compared With Entire Sample of Teachers

Style	0-3 years *N*	%	5+ years *N*	%
FI	2	1%	21	9%
RE	2	1%	16	7%
SI	18	8%	96	42%
DE	12	5%	61	27%

Note. $N = 227$

As seen in Table 23 (see also Figure 21), approximately 77% of the entire survey sample was made of teachers who had taught for five or more years. Teachers with five or more years of experience represented the majority of the teachers identified as Facilitators of Independence (FI) and Resource Experts (RE) (86%). Teachers with one to three years of experience represented a minority of those sampled (13.5%) and were mostly Supportive Instructors (SI) and Dynamic Engagers (DE).

Figure 21

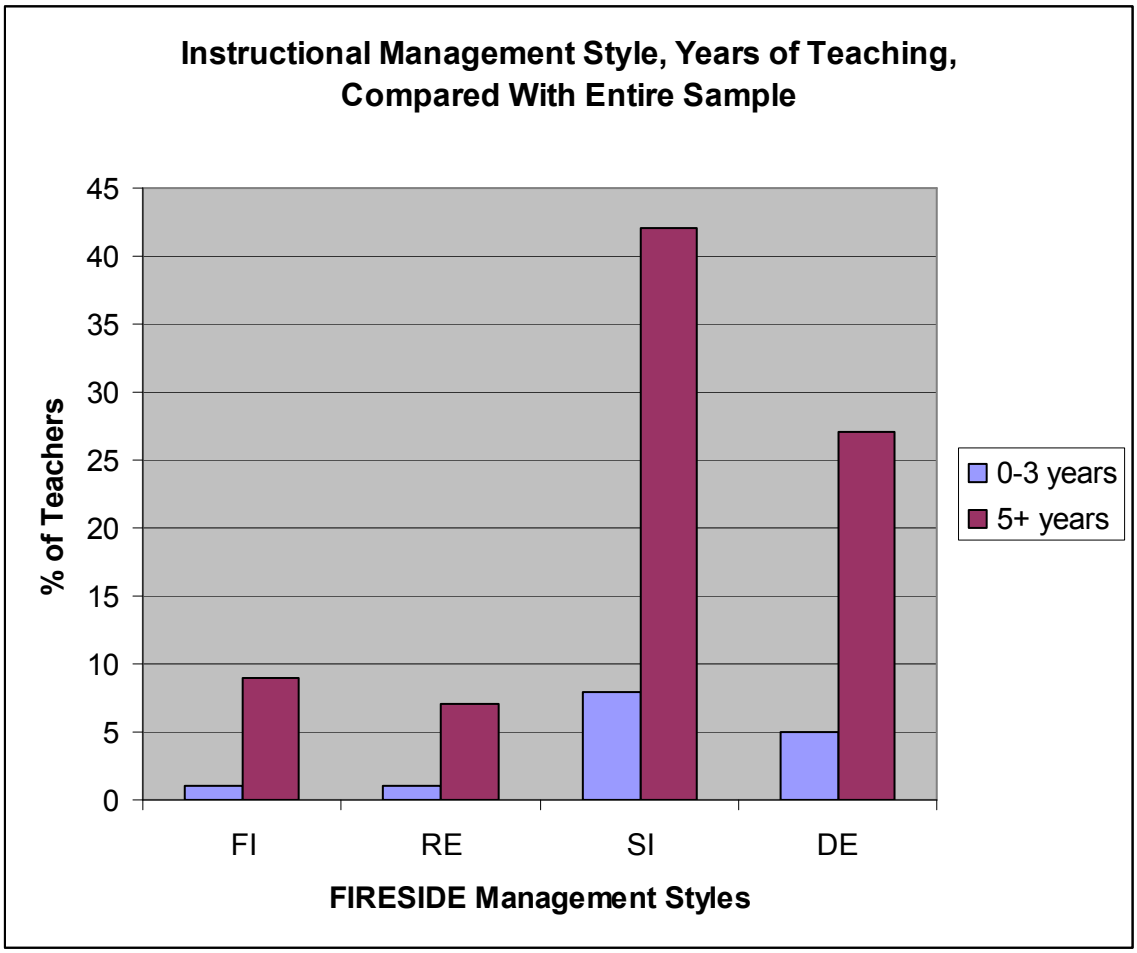

Instructional Management Style, Years of Teaching, Compared With Entire Sample
% of Teachers
45
40
35
30
25
20
15
10
5
0
FI
RE
SI
DE
FIRESIDE Management Styles
0-3 years
5+ years

Table 24

Crosstabulation of Predominant Instructional Management Styles by Grade Level

Style	Observed Value Lower	*Expected Value*	Observed Value Upper	*Expected Value*	TOTAL
FI	8	*10.95*	17	*14.04*	25
RE	3	*9.20*	18	*11.79*	21
SI	54	*56.09*	74	*71.90*	128
DE	45	*33.74*	32	*43.25*	77
TOTAL	110		141		251

N = 251 $df = 3$

$X^2 = 15.68$ $p = 0.0013$

Table 24 (see also Figures 22 and 23) is a summary using crosstabulations followed by Chi Square for two independent variables. Lower and upper refer to grade level preferences (PreK-3 and 4-8). The Chi Square analysis of grade level preferences by instructional management styles was significant ($X^2 = 15.68$; $df = 3$; $p < .0013$). Thus, the hypothesis was supported that the proportion of teachers with various instructional management styles who preferred to teach lower grades differed from the proportion of

teachers who preferred upper grades. The null hypothesis was rejected. The percentages of teachers in each of the FIRESIDE quadrants differed for teachers who preferred lower grades and those who preferred upper grades.

Figure 22

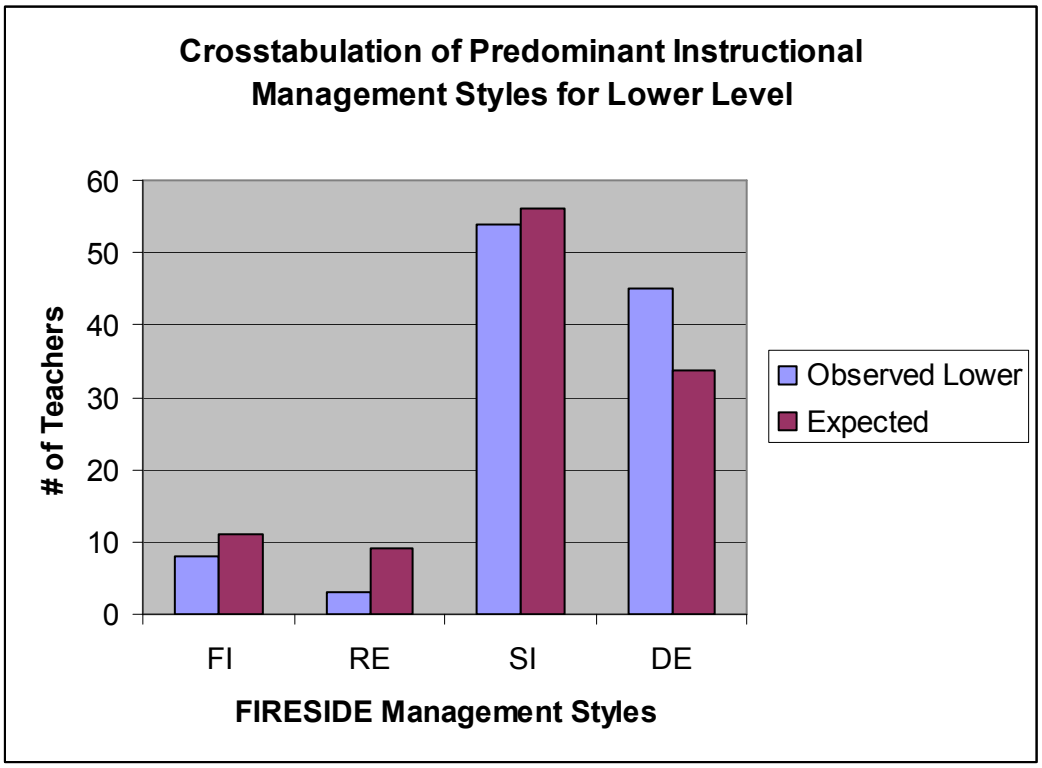


Figure 23

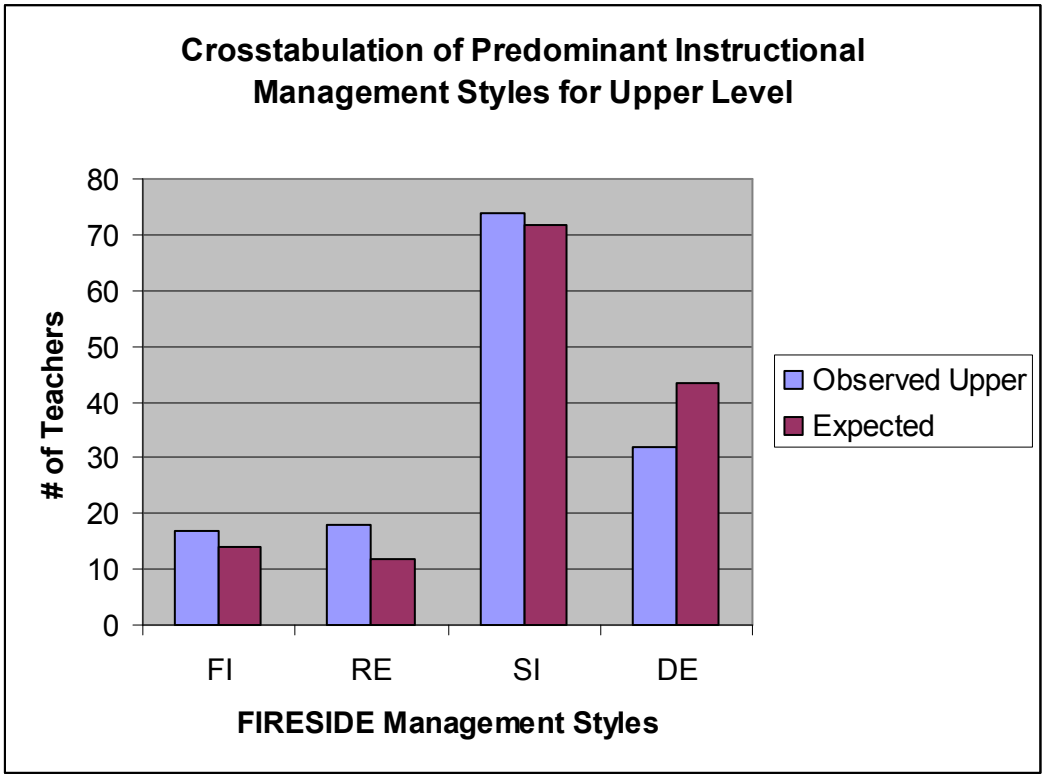


Table 25

Instructional Management Styles Percentage Comparison for Hypothesis

Style	Lower *N*	%	Upper *N*	%
FI	8	7%	17	12%
RE	3	3%	18	13%
SI	54	49%	74	52%
DE	45	41%	32	23%

Note. *Lower N* = 110
Upper N = 141

As seen in Table 25, teachers in both grade levels tended to be Supportive Instructors (SI) (49% and 52%) and Dynamic Engagers (DE) (41% and 23%); however, the proportion of Dynamic Engager (DE) teachers in the upper grade levels was not as great. Teachers who were Facilitators of Independence (FI) or Resource Experts (RE) preferred to teach in the upper grade levels. Resource Experts (RE) were least likely to prefer teaching at the PreK-3 level.

Table 26

Cramér Coefficient of Instructional Management Styles and Grade Level Preferences

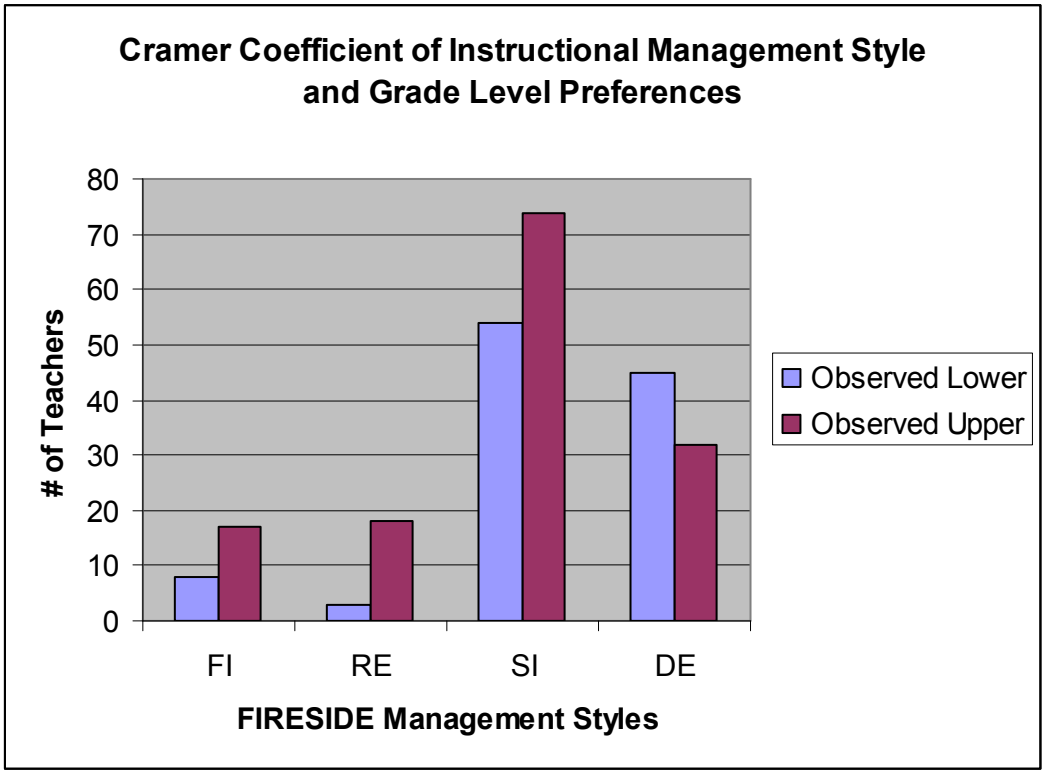
Style	Observed Value Lower	Observed Value Upper	TOTAL
FI	8	17	25
RE	3	18	21
SI	54	74	128
DE	45	32	77
TOTAL	110	141	251

$N = 251$
$L = 2$
$X^2 = 15.68$

Cramér Coefficient = 0.25

Table 26 (see also Figure 24) shows the summary of the Cramér Coefficient for instructional management styles and grade level preferences. A coefficient near 0 is independent, whereas a coefficient toward 1 indicates a high degree of association between instructional management styles and grade level preferences. The Cramér Coefficient was 0.25.

Figure 24



Summary of Findings

The Chi Square analysis of grade level preferences by instructional management styles was significant ($X^2 = 15.68$; $df = 3$; $p < .0013$). The hypothesis was supported that the proportion of teachers with various instructional management styles who preferred to teach lower grades differed from the proportion of teachers who preferred upper grades. The null hypothesis was rejected. The percentages of teachers in each of the FIRESIDE quadrants differed for teachers who preferred lower grades and those who preferred upper grades.

A higher proportion of lower elementary education teachers were Supportive Instructors (SI) (49%) and Dynamic Engagers (DE) (36%) [See Table 5 and Figure 3]. A

higher proportion of upper grade level teachers were Supportive Instructors (SI) (50%) in comparison to the other management styles [See Table 6 and Figure 3]. There were also notable differences in the higher percentages of teachers who preferred upper grades who were in the Facilitators of Independence (FI) and Resource Expert (RE) styles [See Table 25]. Approximately 76% of the teachers who were identified as Facilitators of Independence (FI) or Resource Experts (RE) preferred upper grade levels for teaching [See Table 25].

The highest percentages of teachers were Supportive Instructors (SI) (51%) and Dynamic Engagers (31%) [See Table 1 and Figure 1]. These percentages may be high for many possible reasons:

(1) Teachers answer survey questions in terms of how they think they should answer them, or how they are currently functioning in the classroom, which may not reflect their true preference of teaching style;

(2) Teachers who participate in online surveys are of similar management styles;

(3) Individuals who choose to go into the field of teaching are of similar management styles;

(4) Experiences in the classroom as students influence the type of teaching styles individuals will later use as teachers;

(5) Teacher training courses and workshops encourage use of a particular teaching style.

Additionally, Supportive Instructors (SI) may accommodate their styles to societal needs for emotional support and encouragement, which may be reflective of broken homes or dysfunctional families. Students may be capable of academic learning, but

teachers may feel students need the motivation from a caring teacher who will spur them onward in the learning process. Similarly, teachers who are Dynamic Engagers (DE) may accommodate their styles to societal values of active and engaged learning. Teachers may adopt styles of teaching in order to maintain student interest and attention.

There may be other possible explanations for the high numbers of Supportive Instructor (SI) and Dynamic Engager (DE) teachers participating in the survey. From the information procured from the survey and the research, no conclusive deduction can be drawn.

The management styles with the fewest representations were the Resource Expert (RE) (8%) and the Facilitator of Independence (FI) (10%) [See Table 1 and Figure 1]. Although the percentages of new teachers and experienced teachers with these instructional management styles were similar, the percentages of teachers with these styles and with experience were slightly higher than new teachers [See Table 22 and Figure 20]. There are several possible reasons for this:

(1) The percentage of experienced teachers who took the survey was approximately 77% of the entire survey sample;

(2) The types of classrooms in which these teachers participated as students were taught by teachers of these management styles. Facilitators of Independence (FI) and Resource Expert (RI) teachers teach the way they were taught.

(3) Over time, teachers modify their teaching style to one that works more efficiently or effectively;

(4) Experienced teachers understand the need to move students along the continuum from dependence to independence from teacher-supported tasks and relationships;

(5) Facilitators of Independence (FI) and Resource Experts (RE) may have had more training in their subject content than in pedagogy;

(5) More teachers who are Facilitators of Independence (FI) or Resource Experts (RE) are teaching in grade levels above the eighth grade.

There may be other possible explanations for the small numbers of Facilitators of Independence (FI) and Resource Experts (RE) in the PreK-8th grades. If teachers are likely to change their style of teaching, a longitudinal study is recommended. Additional research must be done to draw further conclusions on the disproportionate number of teachers representing these styles of teaching.

Another Chi Square analysis was performed on the profiles of male and female teachers to determine if gender influences teaching style. These results were also significant ($X^2 = 9.47$; $df = 3$; $p = 0.0237$). The proportion of male teachers with various instructional management styles differed from the proportion of instructional management styles for women [See Tables 11, 12, and 13 and also Figures 7, 8, and 9]. Male and female teachers preferred a Supportive Instructor (SI) style (52.5% and 51.2%). Females also preferred a Dynamic Engager (DE) management style (33.2%). The percentage of males who favored a Facilitator of Independence (FI) style (20%) was greater than the percentage of females who favored that management style (8%).

Generalizations beyond the scope of the research are speculative. The survey did not examine reasons for disproportionate numbers of teachers representing various

teaching styles. Therefore, it is recommended that more research be done to increase applications of these findings.

CHAPTER V

Significance of the Study and Conclusion

This dissertation, *Instructional Management Profiles: The Relationship Between Teaching Styles, Grade Level Preferences*, *and Related Factors* was designed to explore the relationships between age level characteristics and complementary instructional management styles. Using quantitative research processes, a specially designed survey was administered to over 1400 PreK-8th grade teachers. Receiving responses from over 200 teachers, the researcher analyzed the data in order to answer the following study questions:

1. Are different instructional methods more developmentally appropriate for different age levels, if students in the same grade level function developmentally in similar ways?
2. What are the distinguishing instructional management styles between teachers who choose to teach at lower grade levels (PreK-3) and teachers who choose to teach at upper grade levels (4-8)?
3. Do other factors correlate with instructional management styles (i.e., current grade level of instruction, gender, satisfaction with teaching, subject area of instruction, and years of experience)?
4. Although teachers use different instructional management styles, do they have a natural preference for a particular management style?

5. Could an instructional management tool help pre-service teachers make an informed choice based on grade level preferences of teachers with matching instructional management profiles who are already in the field?

The data collected from the 224 teachers and the literary research study provided insight to answer the above questions.

Discussion and Conclusions

The researcher gathered data on teachers' instructional management styles and grade level preferences. A comparison was made between teachers' preferences of instructional management styles and preferences for teaching lower or upper grade levels to determine whether a relationship existed. The research determined a relationship existed. Teaching profiles and grade level preference patterns were established. There are distinguishing instructional management styles for teachers who choose to teach in lower grade levels (PreK-3) and upper grade levels (4-8). Pre-service teachers can use the results to determine their best fit for lower, upper, or dual certification.

Each of the research questions of this study will be answered in this section, along with supporting data.

Research Question 1: Are different instructional methods more developmentally appropriate for different age levels, if students in the same grade level function developmentally in similar ways? The answer to this research question came primarily from theoretical support in the literature review. Survey data also provided information for the answer. Based on child development theory, students who are approximately the same age in particular grade levels share similar characteristics (Askew, 1985, pp. 8-9; Association for Supervision and Curriculum Development, 1950, p. 85; Clark, R., 1984,

pp. 7-28; Havighurst, 1972, pp. 8-35; Salot & Leavitt, 1965, pp. 3-4). Research also shows that subgroups of special populations function in particular quadrants for particular tasks (Carder, 1996, p. 2; Griggs, 1989, p. 136; Phipps & Phipps, 2003, p.3). The amount and type of direction and support needed varies for subgroups of students. If students are developmentally similar, they predominantly function within certain quadrants for the majority of school-related tasks per grade level. It follows that different instructional methods would be developmentally appropriate for different age levels. Thus, certain styles of instructional management are better suited for learners of certain ages.

Analyzing teacher satisfaction reports provided insight into the suitability of instructional management styles from the teacher's perspective. Generally, the results indicated that teachers were satisfied with teaching. Almost all PreK-8 teachers, regardless of teaching level, were moderately or very satisfied with teaching (see Tables 13 and 14). A small percentage (5%) of current PreK-3 teachers who preferred teaching at the upper level indicated they were *not very satisfied* (see Table 15). At both levels, almost all current teachers who were identified as preferring lower and upper levels of students, according to McNaughton's Grade Level Characteristic Survey, indicated they were *moderately satisfied* or *very satisfied* (see Tables 15 and 16). The Facilitator of Independence (FI) and Supportive Instructor (SI) management styles were the only styles to indicate dissatisfaction with teaching (see Tables 13 and 14). The question of suitability of instructional management styles for certain ages of learners from the learner's perspective was not assessed in the profiles and preferences survey. To assess suitability from the learner's perspective, additional research would require questioning the learners and the effectiveness of teaching and success in learning.

Research Question 2: What are the distinguishing instructional management styles between teachers who choose to teach at lower grade levels (PreK-3) and teachers who choose to teach at upper grade levels (4-8)? The answer to this research question came from both the theoretical support in the literature review and from the research data. Leaders must adjust to the circumstances and maturity level of the followers (Blanchard, Zigarmi, & Zigarmi, 1985, pp. 18-19; Carder, 1996, p. 1; Ireh & Bailey, Situational Leadership Theory section, ¶ 3). As the general levels of students develop, the style of leadership should change as well. The teacher adjusts the amount of task and relationship support. Ultimately, the teacher's instructional goal should be to help individuals become independent (Fischer & Fischer, 1979, p. 254). The research from the survey showed there were more Dynamic Engagers (DE) who preferred lower grade levels than upper grade levels (17.9% and 12.7%) (see Table 4). Upper level teachers had higher percentages of Facilitators of Independence (FI), Resource Experts (RE), and Supportive Instructors (SI) compared to the percentages of teachers of the same management styles at lower levels (see Table 4). The percentage of teachers who were Dynamic Engagers (DE) was highest in Pre-K (66.7%) and Kindergarten (50%) (see Table 10). The percentage of Dynamic Engagers (DE) generally declined as the grade level increased. The percentage of Resource Experts (RE) peaked at grade 3 and grade 7. Different proportions of instructional management styles were found between teachers who preferred to teach lower grades and teachers who preferred to teach upper grades.

Research Question 3: Do other factors correlate with instructional management styles (i.e., current grade level of instruction, gender, satisfaction with teaching, subject area of instruction, and years of experience)? The answers to this research question came from

the data gathered from the survey. In summary, the null hypotheses related to the research question and results were as followed:

(1) Teachers who currently teach in grades PreK-3 will have the same instructional management styles as teachers who currently teach in grades 4-8. The Chi Square analysis of instructional management styles and current PreK-3 teachers was significant ($X^2 = 13.85$; $df = 3$; $p = 0.0031$); however, the Chi Square analysis of instructional management styles and current 4-8 teachers was not significant ($X^2 = 3.38$; $df = 3$; $p = 0.3364$). The null hypothesis is retained.

(2) The instructional management styles of males will be the same as the instructional management styles of females. The Chi Square for instructional management styles and gender was statistically significant ($X^2 = 9.47$; $df = 3$; $p = 0.0237$). The null hypothesis is rejected.

(3) Teachers who prefer to teach lower or upper grade students will be equally satisfied teaching in either level. The Chi Square analysis of satisfaction of teachers who preferred lower grades was not significant ($X^2 = 3.31$; $p = 0.3462$). The Chi Square analysis of satisfaction of teachers who preferred upper grades was not significant ($X^2 = 5.38$; $p = 0.4965$). The null hypothesis is retained.

(4) Teachers of special subjects such as art, music, and physical education will have instructional management styles that match the styles of classroom teachers. The Chi Square for instructional management styles and special subject areas was not statistically significant ($X^2 = 4.35$; $p = 0.6298$). The null hypothesis is retained.

(5) New teachers will have the same instructional management styles as experienced teachers. The Chi Square for instructional management styles and the

number of years taught was not statistically significant ($X^2 = 1.11$; $p = 0.7750$). The null hypothesis is retained.

Research Question 4: Although teachers use different instructional management styles, do they have a natural preference for a particular management style? The answer to this research question came primarily from theoretical support in the literature review with support from the survey data. Teachers' instructional methods differ for various reasons including the kind of learning experiences students value, and the student's age, gender, and stage of development (Brown, B., 2003, p. 4). Although teachers use different instructional management styles, researchers have found that teachers exhibit patterns of behavior in the classroom (Galbraith & Sanders, 1987, p. 170; Gregorc, 2006). Teaching styles encompass what classroom routines the teachers establish, how the teachers choose to arrange the room, how the teachers use class time, and what teachers do to enable pupils to develop as individuals (Martin & Baldwin, 1993, p. 5). Personality structures develop early in life and become more difficult to change as people get older (Hersey, Blanchard, & Johnson, 1996, p. 39; Field, 1982; Northouse, 2004, p. 236, Teglasi, 1995, ¶ 2). Likewise, teaching styles are shaped by personal preferences (Ladd, 1995, p. 31; Worfel, 2002, p. 10) and once shaped, they tend to "persist even when content changes" (Heimlich & Norland, 1994, p. 41; qtd. in Lacey, Saleh, & Gorman, 1998, p. 12).

The research survey showed that various styles were represented at different grade levels (see Tables 5 and 6). The variety of styles indicated that to some degree teachers have a natural preference for a style of teaching. No Facilitators of Independence (FI) or Resource Experts (RE) were teaching in Pre-K or Kindergarten (see Tables 9 and 10). All styles were represented in grades 1st through 8th except for 2nd

grade, which had no Resource Experts (RE). The percentage of Supportive Instructors (SI) remained relatively high and stable throughout the grades, ranging from 33.3% to 61%. The percentage of Facilitators of Independence (FI) remained relatively low and stable from first grade through eighth grade, ranging from 5.55% to 17.3%.

Research Question 5: Could an instructional management tool help pre-service teachers make an informed choice based on grade level preferences of teachers with matching instructional management profiles who are already in the field? The answer to this research question came from theoretical support in the literature review. Cognitive and learning styles reflect individual strengths and often influence the profession an individual pursues (Northouse, 2004, p. 252; Thornton, Peltier, & Hill, 2005, p. 493). Thus, an analysis of learning and management styles has the potential for enhancing career guidance (Kirby, 1979, p. 5; Thornton, Peltier, & Hill, p. 493). The use of an instructional management tool for helping pre-service teachers make informed choices of career treks is yet to be determined; however, research suggests profile/preference patterns exist. Educational leaders can have pre-service teachers answer the survey questions hypothetically. The results could give pre-service teachers an indication for career direction based on the distinguishing instructional management styles for lower and upper grade teachers. Comparisons were made between teachers' instructional management styles, the current grades they are teaching, and their level of satisfaction. Eight percent of Facilitators of Independence (FI) were *not very satisfied* when teaching at lower levels (see Table 17). Seventy-nine percent of Facilitators of Independence (FI) reported being *very satisfied* teaching in upper levels (see Table 17). Those teachers who were Supportive Instructors (SI) had a higher percentage of *very satisfied* when teaching

in lower grade levels (87%) than those who were teaching in the upper grade levels (67%).

Applications

The research has professional significance for the field of education. By gathering data on teachers' instructional management styles and grade level preferences, a comparison was made between teachers' preferences of instructional management styles and preferences for teaching lower or upper grade levels. An analysis determined that a relationship existed. The results may benefit pre-service teachers who must choose to be certified in lower grades, to be certified in upper grades, or to pursue dual certification. Because profile/preference patterns were established, the patterns may help determine the best fit for pre-service teachers. Other research suggests that teachers will likely enjoy greater job satisfaction when they teach students who generally match their natural instructional management preferences, resulting in longevity and more effective teaching (Canfield & Canfield, 1988, p. 24; Marth & Newman, 1993, p. 4; Stitt-Gohdes, Crews, & McCannon, 1999, ¶ 5; Thornton, Peltier, & Hill, 2005, pp. 489, 494).

The research also has professional significance for the field of educational leadership. Because instructional management/grade level preference patterns exist, an educational leader might use the results for teachers who are already in the field. The educational leader may be able to identify teachers who are frustrated or challenged in the classroom because they are teaching in a grade level that is a mismatch for their instructional management style (Liesveld & Miller, 2005, p. 53). In such cases, the teacher may be reassigned to a different grade level that is more compatible to his or her teaching style.

Limitations of the Study

Factors jeopardizing the internal validity of the experimental research design were charted in Table 10.6 of the Ary, Jacobs, and Razavieh (2002, p. 323) text. The stated research problem was non-experimental; however, some of the same factors that affect the validity of experimental research also affect the validity of non-experimental research problems. Experimenter effects could jeopardize the internal validity where the teachers may be affected by bias toward Valley Forge Christian College. The internal validity could be jeopardized by diffusion where the teachers who completed the surveys before their colleagues shared information with others about their experience completing the survey. This information may have affected latter teachers' responses on the survey. In addition, the predictive validity of survey research of preferences is sometimes questionable as there might be discrepancies between what respondents say and what they do. Respondents might answer the questions in terms of how they think they should answer them, or how they are currently functioning in the classroom, answers which might reflect neither their true preference of teaching style nor grade level preference.

Survey research on human subjects may give less reliable results compared to other more predictable research. People may have natural preferences for teaching styles, but experience as a student in the classroom and in training as a teacher may influence teaching styles to the point of masking natural preferences. Another possible limitation of the research includes the type of teacher who is interested and willing to participate in the research. This includes the method of administering the survey. The survey was completed electronically. The instructional management styles of teachers might influence the type of teacher who participated in the survey. By definition, Dynamic

Engagers (DE) like experimenting with a variety of activities, and taking an online survey may appeal to them. Also, many teachers identified as Dynamic Engagers (DE) might reflect the type of active-learning training that has been done in education for the past decade. Additionally, a dynamic classroom atmosphere might appeal to students and pre-service teachers who are natural Dynamic Engagers (DE), and thus Dynamic Engagers (DE) pursue careers in teaching. Administering the survey to a broader range of individuals may influence the findings.

Another factor that may jeopardize the findings includes changes in society. Changes in society may reflect the need to adapt teaching styles in the classroom. In the past, parents and educators expressed common concerns about the amount of time students spent at home passively watching television. For many students, time in front of the television was replaced by time spent more actively participating in computer games, research, and conversations. Computer work in the classroom may invite greater interaction between the student and learning than what teachers previously demanded through completion of worksheets and textbook readings. The student preference for interaction may be reflected in the high numbers of Supportive Instructors (SI) and Dynamic Engagers (DE) at both the upper and lower grade levels. Likewise, changes in society include a faster pace and multitasking as compared to a formerly less complex and slower paced lifestyle. Changes in society might mean more active and varied learning in the classroom. Perhaps teachers find that high emotional support is necessary for students to engage in the learning process. The teacher might find that in order to maintain student attention, the lesson must move at a brisk pace. This may also influence

the higher number of Supportive Instructor (SI) and Dynamic Engager (DE) teachers at both the upper and lower grade levels.

Recommendations for Further Research

In performing this study, little research was found to describe the relationship between instructional management styles and grade level preferences. In *Factors Associated with Teachers' Beliefs on Discipline*, Onwuegbuzie, Witcher, Filer, and Downing (2000) cited research by Martin and Baldwin (1993) who "compared elementary school teachers to secondary school teachers with respect to their discipline beliefs. Findings revealed that elementary school teachers were less interventionist than were their secondary level counterparts" (p. 12). Thornton, Peltier, and Hill (2005) used personality assessments to determine differences between profiles of elementary and secondary student teachers. Their research stemmed from a concern for the numbers of teachers leaving the teaching profession after their first year and before their fifth year (p. 489). Thornton, Peltier, and Hill suggested that personality types may be related to teacher success and length of service (p. 490).

The type of teaching settings selected for this study on teaching profiles and preferences closely correlated with the type of settings from which Valley Forge Christian College pre-service teachers come, that is, eastern United States region, urban, suburban, and rural areas, and Christian, private, and public schools. The settings also reflected the types of places the graduates teach upon certification. Nonetheless, further research is necessary to generalize the findings to the target population of all PreK-8 teachers. Also, only PreK-8th grade teachers were surveyed. Expanding the level of

teachers surveyed through high school and university level would also provide a broader base from which to draw conclusions.

In summary, generalizations beyond the scope of the research are speculative. Additional research could contribute to improvements in the field of education. Researchers could survey teachers from a broader regional base. Researchers could survey teachers in high school and universities. Researchers could survey individuals outside the field of education. Researchers could survey teachers using a non-electronic format. Further research in any and all of these populations is recommended for findings that are more conclusive.

References

Ary, D., Jacobs, L. C., & Razavieh, A. (2002). *Introduction to research in education* (6th ed.). Belmont, CA: Wadsworth/Thomas Learning.

Askew, S. (1985). *A handbook for guiding the preschool child.* Springfield, MO: Gospel Publishing House.

Association for Supervision and Curriculum Development. (1950). *Fostering mental health in our schools.* Washington, DC: National Education Association.

August, L., Hurtado, S., Wimsatt, L. A., & Dey, E. L. (2002). *Learning styles: Student preferences vs. faculty perceptions* (Report No. HE 035 629). University of Michigan. (EDRS Documentation Reproduction Service No. ED 472 470). Retrieved December 20, 2005, from OCLC First Search database.

Barbe, W. B., & Milone, M. N. (1981). What we know about modality strengths. *Educational Leadership, 38*, 378-380.

Beck, C. (2001). Matching teaching strategies to learning style preferences. *The Teacher Educator, 37(1),* 1-15. Retrieved December 20, 2005, from OCLC First Search database.

Belasco, J. A., & Stead, J. L. (1999). The five jobs of leaders. *Leader to Leader 14,* 15-17.

Blanchard, K., Zigarmi, P., & Zigarmi, D. (1985). *Leadership and the one minute manager.* New York: Blanchard Management Corporation.

Bowman, R. F. (2004). Teachers as leaders. *Clearing House 77(5),* 187-189. Retrieved May 11, 2006, from OCLC First Search database.

Brown, B. L. (2003). Teaching style vs. learning style. *ERIC Clearinghouse on Adult, Career, and Vocational Education, 26,* 2-4. Retrieved December 20, 2005, from OCLC First Search database.

Brown, D. F. (2005). The significance of congruent communication in effective classroom management. *Clearing House 79(1),* 12-15. Retrieved May 11, 2006, from OCLC First Search database.

Canfield, A. A., & Canfield, J. S. (1988). *Canfield instructional styles inventory (ISI) manual.* Los Angeles: Western Psychological Services.

Carder, L. (1996). *Using Situational Leadership to reach the whole population* (Report No. IR 056 376). Southeast Missouri State University. (EDRS Documentation Reproduction Service No. ED 406 998). Retrieved May 11, 2006, from OCLC First Search database.

Clark, D. (2001). *Two dimensional modeling.* Retrieved May 11, 2006, from http://www.nwlink.com

Clark, R. W. (1984). *A handbook for guiding the elementary child.* Springfield, MO: Gospel Publishing House.

Delahoussaye, M. (2002). The perfect learner: An expert debate on learning styles. *Training 39(5),* 28-36. Retrieved December 20, 2005, from OCLC First Search database.

Dunn, R. (1990). Rita Dunn answers questions on learning styles. *Educational Leadership, 48(2),* 15-19.

Dunn, L., & Kontos, S. (1997). *Developmentally appropriate practice: What does research tell us?* Champaign, IL: ERIC Clearinghouse on Elementary and Early Childhood Education. (ERIC Documentation Reproduction Service No. ED 413 106). Retrieved May 11, 2006, from OCLC First Search database.

Dunn, R., & Dunn, K. (1979). Learning styles/teaching styles: Should they … can they … be matched? *Educational Leadership, 36(4),* 238-244.

Erikson, E. H. (1963). *Youth: Change and challenge.* New York: Basic Books, Inc., Publishers.

Field, D. (1982). Stability of personality characteristics throughout adulthood. *U.S., California.* Abstract retrieved July 28, 2006, from OCLC First Search database.

Fischer, B., & Fischer, L. (1979). Styles in teaching and learning. *Educational Leadership, 36(1),* 345-361.

Galbraith, M. W., & Sanders, R. E. (1987). Relationship between perceived learning style and teaching style of junior college educators. *Community/Junior College Quarterly*, *11(3),* 169-177.

Gardner, J. W. (1990). *On leadership*. New York: Free Press.

Gilbert, J. E., & Han, C. Y. (1999). *Arthur: Adapting instruction to accommodate learning style* (Report No. IR020480). (EDRS Documentation Reproduction Service No. ED 448 717). Retrieved May 11, 2006, from OCLC First Search database.

Gomberg, L., & Gray, S. (2000). Five basic principles for effectively managing the classroom. *Adult Learning, 11(4),* 24-27. Retrieved December 20, 2005, from OCLC First Search database.

Gordon, H. (1998). *Identifying learning styles* (Report No. TM 029 170). Montgomery, WV: Beginning Vocational Education Teachers. (EDRS Documentation Reproduction Service No. ED 424 287). Retrieved December 20, 2005, from OCLC First Search database.

Gregorc, A. F. (1979). Learning/teaching styles: potent forces behind the scenes. *Educational Leadership*, *36(4),* 234-236.

Gregorc, A. F. (1985). *Gregorc style delineator™: A self assessment instrument for adults.* Columbia, CT: Gregorc Associates, Inc.

Gregorc, A. F. (2003). *Gregorc mind styles™: Learner characteristics extenda-chart.* [Brochure]. Columbia, CT: Gregorc Associates, Inc.

Gregorc, A. F. (2006). *Gregorc associates, inc.* Retrieved January 2, 2006, from http://www.gregorc.com/instrume.html

Gregorc, A. F., & Butler, K. A. (1984). Learning is a matter of style. *VocEd, 59(3),* 27-29.

Griffith, J. W., & Frey, C. H. (2000). *Classics of children's literature* (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Griggs, S. (1989). Students' sociological grouping preferences of learning styles. *Clearing House, 63(1),* 135-139.

Harrison, G., Andrews, J., & Saklofske, D. (2003). Current perspectives on cognitive and learning styles. *Education Canada 43(2),* 44-47. Retrieved December 20, 2005, from OCLC First Search database.

Havighurst, R. J. (1953). *Human development and education.* New York: David McKay Company, Inc.

Havighurst, R. J. (1972). *Developmental tasks and education* (3rd ed.). New York: David McKay Company, Inc.

Heimlich, J. E., & Norland, E. (1994). *Developing teaching style in adult education.* San Francisco, CA: Jossey-Bass Publishers.

Hersey, P., & Blanchard, K. H. (1988). *LEAD-self: Leadership styles/perception of self*. Escondido, CA: Leadership Studies.

Hersey, P., Blanchard, K. H., & Johnson, D. E. (1996). *Management of organizational behavior: Utilizing human resources* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Horton, C. B. (1997). Temperament-based learning styles as moderators of academic achievement. *Adolescence 32(125),* 131-141. Retrieved May 9, 2006, from OCLC First Search database.

Hoyt, D., & Lee, E. (2002). Teaching "styles" and learning outcomes. *IDEA Research Report (4),* 2-6. Retrieved December 20, 2005, from OCLC First Search database.

Ingalls, J. D. (1972). *A trainer's guide to andragogy*, Revised Edition (017-061-00033-0). Washington, DC: US Dept. of Health, Education and Welfare.

Ireh, M., & Bailey, J. (1999). A study of superintendents' change leadership styles using the Situational Leadership Model. *American Secondary Education 27(4),* 22-32. Retrieved May 11, 2006, from OCLC First Search database.

Kavale, K. A., & Forness, S. R. (1987). Substance over style: Assessing the efficacy of modality testing and teaching. *Exceptional Children, 54(3),* 228-239.

Kirby, P. (1979). *Cognitive style, learning style, and transfer skill acquisition.* Columbus, OH: The National Center for Research in Vocation Education, The Ohio State University. (ERIC Document Reproduction Service No. ED 186 685).

Knowles, M. (1973). *The adult learner: A neglected species*. Houston, TX: Gulf Publishing Company.

Knowles, T., & Brown, D. F. (2000). *What every middle school teacher should know*. Portsmouth, NH and Westerville, OH: Heinemann and National Middle School Association.

Lacey, C. H., Saleh, A., & Gorman, R. (1998). *Teaching nine to five: A study of the teaching styles of male and female professors* (Report No. HE 032 906). Lincoln, NE: Women in Educational Leadership Annual Conference. (EDRS Documentation Reproduction Service No. ED 442 334). Retrieved May 9, 2006, from OCLC First Search database.

Ladd, P. (1995). The learning and teaching styles of Tennessee secondary business education teachers. *Delta Pi Epsilon Journal, 37(1)*, 29-45.

Laut, J. (1999). *Classroom management: Beliefs of preservice teachers and classroom teachers concerning classroom management styles* (Report No. PS 028914). Coastal Carolina University. (EDRS Documentation Reproduction Service No. ED 445 815). Retrieved May 11, 2006, from OCLC First Search database.

Learning styles of elementary preservice teachers (2004). *College Student Journal 38(3),* 494-500. Retrieved May 8, 2006, from OCLC First Search database.

Lemire, D., & Gray, J. (2003). Brief report: An introduction to learning styles for developmental educators part II: The ego inventory. *Journal of College Reading and Learning 33(2),* 231-239. Retrieved December 20, 2005, from OCLC First Search database.

Liesveld, R., & Miller, J. (2005). *Teach with your strengths: How great teachers inspire their students.* New York, NY: Gallup Press.

Marshall, C. (1991). Teachers' learning styles: How they affect student learning. *Clearing House, 64(4),* 225-227.

Marth, J. R., & Newman, I. (1993). *The personality structure of pre-service teachers as measured by the 16 PF: Estimates of stability across time and gender* (Report No. SP 035 741). Midwestern Educational Research Association Conference. (EDRS Documentation Reproduction Service No. ED 379 236). Retrieved July 29, 2006, from OCLC First Search database.

Martin, N. K., & Baldwin, B. (1993). *Validation of an inventory of classroom management styles: Differences between novice and experienced teachers.* Paper presented at the Annual Meeting of the American Educational Research Association, Atlanta, GA.

McNaughton, A.K. (2006). *McNaughton's grade level characteristics preference survey.* Unpublished work.

Merriam, S., & Mullins, L. (1981). Havighurst's adult developmental tasks: A study of their importance relative to income, age and sex. *Adult Education 31(3),* 123-141.

Moore, L. L., & Dyer, J. E. (2002). *Learning styles and leadership adaptability of college of agriculture and life sciences students.* Retrieved May 24, 2006, from http://aaaeonline.ifas.ufl.edu/NAERC/2002/naercfiles/NAERC/Learn%20Style%20Moore-Dyer.pdf

Myers, J. E. (1991). Empowerment for later life. *ERIC Clearinghouse on Counseling and Personnel Services, Ann Arbor, MI.* Retrieved May 17, 2006, from OCLC First Search database.

Northouse, P. G. (2004). *Leadership: Theory and practice* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Onwuebguzie, A. J., Witcher, A. E., Filer, J., & Downing, J. (2000). *Factors associated with teachers' beliefs on discipline* (Report No. SP 039 754). Lexington, KY: Annual Meeting of the Mid-South Educational Research Association. (EDRS Documentation Reproduction Service No. ED 450 080). Retrieved May 11, 2006, from OCLC First Search database.

Parker, L.W. (2005). *Parker's learning styles profile calculation form.* Unpublished work.

Parker, L.W. (2006). *Parker's FIRESIDE instructional management profile calculation form.* Unpublished work.

Pascarella, S. V., & Lunenburg, F. C. (1988). A field test of Hersey and Blanchard's Situational Leadership Theory in a school setting. *College Student Journal, 21,* 33-37.

Phipps, M. L., & Phipps, C. A. (2003). *Using the expedition leader style analysis* (Report No. RC024159). Wilderness Education Association. (ERIC Documentation Reproduction Service No. ED 479 325). Retrieved May 11, 2006, from OCLC First Search database.

Pickard, J. (1998). *Choosing your style: Approaches to leading adventure therapy programmes* (Report No. RC021711). Perth, Australia: International Adventure Therapy Conference. (EDRS Documentation Reproduction Service No. ED 424 062). Retrieved May 11, 2006, from OCLC First Search database.

Robles, H. J. (1998). *Andragogy, the adult learner and faculty as learners* (Report No. JC 990071). (EDRS Documentation Reproduction Service No. ED 426 740). Retrieved May 9, 2006, from OCLC First Search database.

Rothbart, M. K., & Jones, L. B. (1998). Temperament, self-regulation, and education. *The School Psychology Review 27(4),* 479-491. Retrieved May 9, 2006, from OCLC First Search database.

Salot, L., & Leavitt, J. E. (1965). *The beginning kindergarten teacher.* Minneapolis, MN: Burgess Publishing Company.

Scheurman, G. (1998). From behaviorist to constructivist teaching. *Social Education 62(1),* 6-9. Retrieved May 11, 2006, from OCLC First Search database.

Seidel, L. E., & England, E. M. (1997). *Gregorc's cognitive styles: Preferences for instructional and assessment techniques in college students* (Report No. HE 030 586). Washington, DC: Annual Convention of the American Psychological Society. (EDRS Documentation Reproduction Service No. ED 414 785). Retrieved May 11, 2006, from OCLC First Search database.

Siegel, S., & Castellan, N. J., Jr. (1988). *Nonparametric statistics for the behavioral sciences* (2nd ed.). New York: McGraw-Hill.

Stitt-Gohdes, W. L. (2001). Business education students' preferred learning styles and their teachers' preferred instructional styles: Do they match? *Delta Pi Epsilon Journal 43(3),* 137-151. Retrieved May 11, 2006, from OCLC First Search database.

Stitt-Gohdes, W. L., Crews, T. B., & McCannon, M. (1999). Business teachers' learning and instructional styles. *Delta Pi Epsilon Journal 41(2),* 71-88. Retrieved May 11, 2006, from OCLC First Search database.

Suleiman, M., & Moore, R. (1997). *Teachers' roles revisited: Beyond classroom management* (Report No. SB37036). Hays, KS: Fort Hays State University. (EDRS Documentation Reproduction Service No. ED 401 227). Retrieved May 11, 2006, from OCLC First Search database.

Teglasi, H. (1995). Assessment of temperament. *ERIC Clearinghouse on Counseling and Student Services, Greensboro, NC.* Retrieved July 28, 2006, from OCLC First Search database.

Tendy, S., & Geiser, W. (1997). *The search for style: It all depends on where you look* (Report No. PS 025 691). Information Analyses. (EDRS Documentation Reproduction Service No. ED 410 029). Retrieved January 2, 2006, from OCLC First Search database.

Terry, M. (2002). Translating learning style theory into developmental education practice: An article based on Gregorc's cognitive learning styles. *Journal of College Reading and Learning, 32(2),* 154-176. Retrieved December 20, 2005, from OCLC First Search database.

Thomas, R. M. (1992). *Comparing theories of child development* (3rd ed.). Belmont, CA: Wadsworth, Inc.

Thornton, B., Peltier, G., & Hill, G. (2005). Do future teachers choose wisely: A study of pre-service teachers' personality preference profiles. *College Student Journal 39,* 489-496.

UCLA Academic Technology Services. (n.d.). *What does Cronbach's alpha mean?* Retrieved June 10, 2006, from http://www.ats.ucla.edu/STAT/SPSS/faq/alpha.html

Wadsworth, B. J. (1996). *Piaget's theory of cognitive and affective development: Foundations of constructivism* (5th ed.). White Plains, NY: Longman Publishers USA.

Wilson, V. (1998). *Learning how they learn: A review of the literature on learning styles* (Report No. TM 029 354). Muskingum College. (ERIC Documentation Reproduction Service No. ED 427 017). Retrieved December 20, 2005, from OCLC First Search database.

Wood, C. (1994). *Yardsticks: Children in the classroom ages 4-12*. Greenfield, MA: Northeast Foundation for Children.

Worfel, P. (2002). *Missing links: A serendipitous journey into teaching styles* (Report No. TM 034 716). Columbus, OH: Mid-Western Educational Research Association. (EDRS Documentation Reproduction Service No. ED 472 162). Retrieved December 20, 2005, from OCLC First Search database.

Appendix A

Parker's FIRESIDE Instructional Management Profile Calculation Form

Parker's FIRESIDE Instructional Management Profile Calculation Form

Answer with numbers 5 (*most preferred*) to 1 (*least preferred*), 3 being *moderately preferred*.

I prefer to teach students who learn and remember best by . . .	Answer	Mgmt. Style	Grd Level
1. reading and researching independently and extensively		RE	U
2. taking notes from the text or the lecture		FI	U
3. listening to the ideas of others before sharing their own		FI	U
4. viewing a visual representation of the concept while listening		SI	U
5. observing demonstrations before following suit		FI	L
6. participating in a teacher-guided activity		SI	L
7. performing the task with teacher encouragement		SI	L
8. writing an analytical paper on the subject		RE	U
9. working independently on teacher-directed assignments		FI	U
10. creating concrete models from theoretical principles		FI	U
11. finding problems and solving them independently from others		RE	U
12. having the teacher make practical applications		FI	U
13. following specific instructional directions		FI	L
14. answering questions in a workbook		FI	L
15. interacting with others on a group project		DE	U
16. interacting with the teacher		SI	L
17. participating in group discussion		DE	U
18. taking objective type tests		FI	L
19. being tested orally and individually		SI	L
20. participating in simulations of the concepts		DE	L
21. planning and assessing their own work		RE	U
22. taking essay type tests		RE	U
23. watching education programs		SI	L
24. participating in exciting and enthusiastic lessons		DE	L
25. generating their own thoughts on a subject		RE	U
26. staying on task with minimal supervision		FI	U
27. experimenting with a variety of activities		DE	L
28. relating real life situations to abstract concepts		RE	U
29. brainstorming ideas		DE	L
30. engaging in whole class activities		DE	L
31. considering logical solutions		RE	U
32. being motivated internally		RE	U
33. being motivated externally		DE	L
34. communicating their ideas with the teacher		SI	L
35. being inspired		SI	U
36. by doing		DE	L

37. independently extracting main ideas from texts and lectures		RE	U
38. playing a game		DE	L
39. sharing how learning relates to their own needs		SI	L
40. having their work guided by the teacher		SI	L

Note: The yellow highlights indicate modifications made from Parker's Learning Styles Profile Calculation Form (2005). The 40th question was added to balance out an even number of upper and lower grade questions and to balance out the four styles of FIRESIDE management. The ranking of 3 was changed from "not sure" to "moderately preferred."

The management style and upper/lower columns are not visible to those taking the survey. They are included here to indicate which questions lean toward which particular teacher management style and which questions lean toward which grade levels. The categories are not exclusive but rather indicate the strongest association, based on theoretical research. For example, "reading and researching independently and extensively" has been assigned to upper level students but does not mean that students in lower grades do not read independently and extensively.

Five key questions from each of the four styles form the predictive subset for calculating totals to determine the instructional management style. These questions were selected on the basis of being most specifically indicative of the amount and type of task and relationship support given in each of the instructional methods. The following questions compose the subsets:

Questions for FI: 2, 9, 13, 18, 26
Questions for RE: 1, 11, 21, 31, 37
Questions for SI: 6, 7, 16, 34, 40
Questions for DE: 20, 27, 30, 33, 38

Appendix B

Theoretical Support for Parker's FIRESIDE Instructional Management Profile

Theoretical Support for Parker's FIRESIDE Instructional Management Profile

1. reading and researching independently and extensively ASCD (1950). "Late Childhood: Eye muscles are now sufficiently developed to enable the child to learn to read" (p. 114). Havighurst (1972). "The middle-class home is more likely to have a variety of children's books, and middle-class parents are more likely to read to and with young children. . . . The typical working-class family thus confers a relative disadvantage on its children with respect to their language and cognitive development, which makes it more difficult for them to succeed in the primary grades of school" (p. 15). Havighurst (1972). "Not only must the brain store up a supply of words and their meanings, but the eyes must also be biologically ready" (p. 15). Havighurst (1972). "Psychological studies have shown that reading is learned by most people, as well as they will ever learn it, by the age of twelve or thirteen. Their speed of silent reading and their oral reading ability seldom improve after that age" (p. 25). Robles (1998). "The adult learners are the ones who identify their interests and their needs with the help of a teacher/facilitator who provides a structure which supports a self-directed learning approach" (p. 5). Seidel & England (1997). "The Abstract Sequential (AS) learning … prefers the teaching methods of extensive reading assignments" (p. 6).
2. taking notes from the text or the lecture Barbe & Milone (1981). "Children with an auditory orientation usually perform poorly on standardized achievement measures, possibly because tests of this kind are more suited to mixed modality or visual students" (p. 378). Gregorc & Butler (1984). "Concrete Sequential: handbooks" (p. 27) Havighurst (1972). "There is some evidence that the body is not biologically 'ready' for handwriting before the sixth grade. That is, the nerves and muscles of the fingers, hand, and arm have not developed to the degree that permits the learning of handwriting before this age" (p. 25). Knowles & Brown (2000). "Middle level students in this concrete stage of cognitive growth are better able to cognitively grasp abstract principles when ideas are taught with the use of hands-on activities and materials rather than presented in a lecture or by reading a textbook" (p. 18). Scheurman (1998). "Classroom activity might include responding to questions in a chapter [or] taking notes from a lecture" (Teacher as Transmitter section, ¶ 2). Terry (2002). "The sequential side of CS learners like lectures" (Teacher-Led Classroom Presentations, ¶ 1).

3. listening to the ideas of others before sharing their own

Barbe & Milone (1981). "Children with an auditory orientation usually perform poorly on standardized achievement measures, possibly because tests of this kind are more suited to mixed modality or visual students" (p. 378).

Barbe & Milone (1981). "Sometime between the late elementary grades and adulthood another shift occurs. Vision remains the dominant modality, but audition becomes more important than kinesthesia" (p. 378).

Dunn & Dunn (1979). "Between 20 and 30 percent of school age youngsters appear to be auditory; that is, they learn and remember what they hear" (p. 240).

Fischer & Fischer (1979). "The auditory learner needs oral explanations, recordings, or lectures" (p. 247).

Gregorc (1979). "A one-hour lecture could require such adaptive qualities as abstract symbol decoding, an aural modality, dependency, separative behavior, deductive reasoning, [and] logical sequencing" (p. 235).

4. viewing a visual representation of the concept while listening

Barbe & Milone (1981). "The most frequent modality strengths are visual" (p. 378).

Barbe & Milone (1981). "Sometime between the late elementary grades and adulthood another shift occurs. Vision remains the dominant modality, but audition becomes more important than kinesthesia" (p. 378).

Dunn & Dunn (1979). "Approximately 40 percent [of school age youngsters] are visual" (p. 240).

Gregorc & Butler (1984). "Abstract Random: Sights and sounds … in the classroom" (p. 28).

Fischer & Fischer (1979). "The visual learner gains much more from seeing or reading about the concept to be learned" (p. 247).

Scheurman (1998). "The teacher's primary function is to break information and skills into small increments, present them part-to-whole in an organized fashion, and then reward student behaviors that mirror the reality presented by teachers and texts" (Teacher as Transmitter section, ¶ 1).

Seidel & England (1997). "The Abstract Random (AR) learner … prefers multi-sensory experiences" (p. 6).

5. observing demonstrations before following suit

Bowman (2004). "Effective teachers as leaders find ways to make meaning personal for students by creating a shared experience to which students can relate" (Management of Meaning section, ¶ 1).

Gregorc & Butler (1984) "Concrete Sequential: demonstration teaching" (p. 27).

Knowles & Brown (2000). "Middle level students in this concrete stage of cognitive growth are better able to cognitively grasp abstract principles when ideas are taught with the use of hands-on activities and materials rather than presented in a lecture or by reading a textbook" (p. 18).

Terry (2002). "CS learners also prefer active demonstrations (and field trips) to verbal explanation, and would prefer to try out the demonstration themselves, instead of just observing it" (Teacher-Led Classroom Presentations, ¶ 1).

6. participating in a teacher-guided activity

Dunn & Dunn (1979). "Students who require interaction with an adult will profit from discussions, lecture, or teacher-directed studies" (p. 240).

Dunn & Dunn (1979). "The unmotivated – those who are not persistent and/or the less responsible students – require short assignments or very few objectives, frequent feedback, a great deal of supervision, and authentic praise *as they are working*" (p. 239).

Fischer & Fischer (1979). "There are children who, when working on special projects, choose to work away from others in a less stimulating environment" (p. 248).

Robles (1998). "The adult learners are the ones who identify their interests and their needs with the help of a teacher/facilitator who provides a structure which supports a self-directed learning approach" (p. 5).

Robles (1998). "The majority of today's … learners respond best to learning situations that are experiential, concrete, and related to their values, interests, and needs. They need structure and feedback" (p. 18).

Terry (2002). "AR students also like independent study projects" (Individual Assignments section, ¶ 3).

7. performing the task with teacher encouragement

Dunn & Dunn (1979). "The unmotivated – those who are not persistent and/or the less responsible students – require short assignments or very few objectives, frequent feedback, a great deal of supervision, and authentic praise *as they are working*" (p. 239).
Fischer & Fischer (1979). "There are children who, when working on special projects, choose to work away from others in a less stimulating environment" (p. 248).
Robles (1998). "The majority of today's … learners respond best to learning situations that are experiential, concrete, and related to their values, interests, and needs. They need structure and feedback" (p. 18).
Terry (2002). "AR students also like independent study projects" (Individual Assignments section, ¶ 3).
Wood (1994). "Learning goes from hand to head, not the other way around" (p. 31).

8. writing an analytical paper on the subject

ASCD (1950). "Early Adolescence: They also are becoming more adept at expressing their thoughts in writing" (p. 122).
Gregorc (2003). "Abstract Sequential: research and document information in systematic ways."
Gregorc & Butler (1984). "Abstract Sequential: guided individual study" (p. 28).
Terry (2002). "[AS students] thrive on library-based research and writing reports" (Individual Assignments section, ¶ 2).
Terry (2002). "AS students also prefer test questions that require detailed answers. Because of their analytical nature, however, they like long-answer test questions that focus on their ability to analyze information" (Testing Situations section, ¶ 2).

9. working independently on teacher-directed assignments

Fischer & Fischer (1979). "Teachers prescribe the materials to be learned and demand specific performance on the part of the students" (p. 251).
Gregorc & Butler (1984). "Concrete Sequential: Structured assignments" (p. 28).
Robles (1998). "The majority of today's … learners respond best to learning situations that are experiential, concrete, and related to their values, interests, and needs. They need structure and feedback" (p. 18).
Terry (2002). "[CS learners] prefer to complete assignments independently, at least partly because of their preoccupation with course grades" (Student Group Discussions and Projects section, ¶ 1).
Terry (2002). "CS students are highly organized and dedicated independent workers who focus on details" (Individual Assignments section, ¶ 1).

10. creating concrete models from theoretical principles

ASCD (1950). "Late Childhood: He makes; he manipulates; he sees how it works" (p. 117).
ASCD (1950). "Late Childhood: Reasoning about what is not observable represents shaky ground for children at this level" (p. 121).
Barbe & Milone (1981). "Sometime between the late elementary grades and adulthood another shift occurs. Vision remains the dominant modality, but audition becomes more important than kinesthesia" (p. 378).
Gregorc (2003). "Concrete Sequential: Want teachers to provide concrete examples and objects, not theories and abstractions."
Gregorc & Butler (1984). "Concrete Sequential: hands-on opportunities" (p. 27).
Knowles & Brown (2000). "Although manipulatives, role-playing and hands-on activities are important during all stages, they are particularly important during the concrete stage" (p. 18).
Knowles & Brown (2000). "Middle level students in this concrete stage of cognitive growth are better able to cognitively grasp abstract principles when ideas are taught with the use of hands-on activities and materials rather than presented in a lecture or by reading a textbook" (p. 18).
Ladd (1995). "The teachers also preferred to learn through listening and did not feel strongly about learning through direct experience as they became more experienced" (p. 43).
Robles (1998). "The majority of today's … learners respond best to learning situations that are experiential, concrete, and related to their values, interests, and needs. They need structure and feedback" (p. 18).
Seidel & England (1997). "The Concrete Sequential (CS) learner … likes touchable, concrete materials" (p. 5).
Wood (1994). "Learning goes from hand to head, not the other way around" (p. 31).

11. finding problems and solving them independently from others

Dunn & Dunn (1979). "Some work and learn best alone; they are distracted by the presence, movements, or sounds of others" (p. 240).
Fischer & Fischer (1979). "There are children who, when working on special projects, choose to work away from others in a less stimulating environment" (p. 248).
Griggs (1989). "Researchers have studied the academically gifted child at every grade level and have found generally that these youth would rather learn independently than with peers or through teacher-dominated instruction" (p. 135).
Terry (2002). "[AR students] thrive on problem-solving and abstract learning tasks in active, unstructured environments" (Individual Assignments section, ¶ 3).
Terry (2002). "AR students also like independent study projects" (Individual Assignments section, ¶ 3).

12. having the teacher make practical applications

Bowman (2004). "Human beings have an innate need to hear and tell stories because those stories provide a lens through which they can view things that happen to them. Stories ignite self-awareness and engender self-confidence. Teachers as leaders recognize the power of stories and often use them in the classroom to focus attention and frame purpose. Stories, metaphors, analogies, and evocative questions capture interest and sustain collective engagement" (Management of Attention section, ¶ 2).

Fischer & Fischer (1979). "They see connections between what they are learning and many other facets of life" (p. 250).

Gregorc & Butler (1984). "Concrete Sequential: direct application problems" (p. 27).

Gregorc & Butler (1984). "For [the AS], hands-on training is a way to understand the working application of a subject rather than an end in itself" (p. 28).

Robles (1998). "Concrete active learners learn best when applications are obvious" (p. 15).

Robles (1998). "The majority of today's … learners respond best to learning situations that are experiential, concrete, and related to their values, interests, and needs. They need structure and feedback" (p. 18).

13. following specific instructional directions

Gregorc & Butler (1984). "Concrete Sequential: lab manuals" (p. 27).

Scheurman (1998). "The teacher's primary function is to break information and skills into small increments, present them part-to-whole in an organized fashion, and then reward student behaviors that mirror the reality presented by teachers and texts" (Teacher as Transmitter, ¶ 1).

Seidel & England (1997). "The Concrete Sequential (CS) learner … looks for and follows instructions" (pp. 5-6).

Terry (2002). "[CS students] keep the group on task, working through the assignment step-by-step according to the teacher's instructions" (Student Group Discussions and Projects, ¶ 1).

Terry (2002). "[CS students] want to be told exactly what to do" (Individual Assignments section, ¶ 1).

14. answering questions in a workbook

Gregorc & Butler (1984). "Concrete Sequential: workbooks" (p. 27).

Gregorc (2003). "Concrete Sequential: workbooks."

Seidel & England (1997). "The CS learner also reportedly prefers the teaching styles of workbooks" (p. 6).

Terry (2002). "[Concrete Sequential learners] enjoy … workbooks" (Individual Assignments section, ¶ 1).

15. interacting with others on a group project

Dunn & Dunn (1979). "Other youngsters achieve best when among their peers" (p. 240).
Dunn & Dunn. "Small group techniques tend to facilitate learning" (p. 240).
Havighurst (1972). "The child moves out from the family circle into the world of his age-mates at the beginning of middle childhood" (p. 22).
Robles (1998). "Pedagogy in elementary and secondary schools has become increasingly more andragogical with the deliberate introduction of experiential, collaborative, and interactive learning" (p. 5).
Seidel & England (1997). "The Concrete Random (CR) leaner … prefers the teaching methods of … group projects" (p. 6).
Stitt-Gohdes, Crews, & McCannon (1999). "Children's learning needs would be best served 'through small-group learning and peer tutoring'" (Learning and Instructional Styles section, ¶ 6).
Terry (2002). "CR students also excel in group discussions and projects. Interacting with other students has the potential to satisfy their needs for competitive, unrestricted, stimulating environments" (Student Group Discussions and Projects section, ¶ 4).

16. interacting with the teacher

Dunn & Dunn (1979). "Students who require interaction with an adult will profit from discussions, lecture, or teacher-directed studies" (p. 240).
Gregorc & Butler (1984). "Abstract Random: They tend to enter fields … that maximize relationships with others" (p. 28).
Gregorc & Butler (1984). "Abstract Random: They have a natural ability to work well with people" (p. 28).
Havighurst (1972). "The child … must make a place for himself among a group of age-mates or 'peers,' all more or less competing for the attention of one 'mother person' or 'father person' – the teacher or adult supervisor" (p. 22).
Terry (2002). "The personality and attitude that a teacher conveys in a classroom presentation are as important as the ideas themselves" (Teacher-Led Classroom Presentations section, ¶ 3).

17. participating in group discussion

Bowman (2004). "Human beings have an innate need to hear and tell stories because those stories provide a lens through which they can view things that happen to them. Stories ignite self-awareness and engender self-confidence. Teachers as leaders recognize the power of stories and often use them in the classroom to focus attention and frame purpose. Stories, metaphors, analogies, and evocative questions capture interest and sustain collective engagement" (Management of Attention section, ¶ 2).

Robles (1998). "Pedagogy in elementary and secondary schools has become increasingly more andragogical with the deliberate introduction of experiential, collaborative, and interactive learning" (p. 5).

Terry (2002). "CR students also excel in group discussions and projects" (Student Group Discussions and Projects section, ¶ 4)

Terry (2002). "[CR students] tend to take the lead in group discussions, raising ideas no one else has suggested" (Student Group Discussions and Projects section, ¶ 4).

18. taking objective type tests

Gregorc & Butler (1984). "Concrete Sequential: programmed instruction" (p. 27).

Gregorc & Butler (1984). "Concrete Sequential: drill" (p. 27).

Terry (2002). "[CS students] therefore like objective true-false, rating scale, and multiple choice test formats" (Testing Situations section, ¶ 1).

19. being tested orally and individually

Barbe & Milone (1981). "Auditory students do better with the spoken rather than the printed word, so they would probably perform better on a non-print test" (p. 378).

Stitt-Gohdes, Crews, & McCannon (1999). "Children's learning needs would be best served 'through small-group learning and peer tutoring'" (Learning and Instructional Styles section, ¶ 6).

Terry (2002). "[AR students] would rather, however, be evaluated on the basis of oral examinations or classroom presentations that showcase their artistic expression" (Testing Situations section, ¶ 3).

20. participating in simulations of the concepts

Barbe & Milone (1981). "Sometime between the late elementary grades and adulthood another shift occurs. Vision remains the dominant modality, but audition becomes more important than kinesthesia" (p. 378).
Dunn & Dunn (1979). "Many of those youngsters can learn well when permitted to take frequent 'breaks' or are assigned tasks which require them to move from area to area" (p. 240).
Gregorc & Butler (1984). "Concrete Random: simulations" (p. 29).
Robles (1998). "The majority of today's … learners respond best to learning situations that are experiential, concrete, and related to their values, interests, and needs. They need structure and feedback" (p. 18).
Robles (1998). "Pedagogy in elementary and secondary schools has become increasingly more andragogical with the deliberate introduction of experiential, collaborative, and interactive learning" (p. 5).
Seidel & England (1997). "The Concrete Random (CR) leaner … prefers the teaching methods of … simulations" (p. 6).
Terry (2002). "CR students particularly enjoy participating in games and simulations in the classroom" (Student Group Discussions and Projects section, ¶ 4).
Wood (1994). "Learning goes from hand to head, not the other way around" (p. 31).

21. planning and assessing their own work

Gregorc & Butler (1984). "Abstract Sequential: guided individual study" (p. 28).
Robles (1998). "The adult learners are the ones who identify their interests and their needs with the help of a teacher/facilitator who provides a structure which supports a self-directed learning approach" (p. 5).

22. taking essay type tests

Terry (2002). "AS students also prefer test questions that require detailed answers. Because of their analytical nature, however, they like long-answer test questions that focus on their ability to analyze information" (Testing Situations section, ¶ 2).

23. watching education programs

Gregorc & Butler (1984). "Abstract Random: television" (p. 29).
Gregorc & Butler (1984). "Abstract Random: movies" (p. 29).
Seidel & England (1997). "The Abstract Random (AR) learner … prefers the teaching methods of movies … and multi-media" (p. 6).
Terry (2002). They [AR students] especially like classroom sessions based on movies and television shows" (Teacher-Led Classroom Presentations section, ¶ 3).

24. participating in exciting and enthusiastic lessons

Bowman (2004). "Human beings have an innate need to hear and tell stories because those stories provide a lens through which they can view things that happen to them. Stories ignite self-awareness and engender self-confidence. Teachers as leaders recognize the power of stories and often use them in the classroom to focus attention and frame purpose. Stories, metaphors, analogies, and evocative questions capture interest and sustain collective engagement" (Management of Attention section, ¶ 2).

Bowman (2004). "Effective teachers as leaders find ways to make meaning personal for students by creating a shared experience to which students can relate" (Management of Meaning section, ¶ 1).

Robles (1998). "Pedagogy in elementary and secondary schools has become increasingly more andragogical with the deliberate introduction of experiential, collaborative, and interactive learning" (p. 5).

25. generating their own thoughts on a subject

Fischer & Fischer (1979). "There are children who, when working on special projects, choose to work away from others in a less stimulating environment" (p. 248).

Gregorc & Butler (1984). "Abstract Sequential: guided individual study" (p. 28).

Robles (1998). "The adult learners are the ones who identify their interests and their needs with the help of a teacher/facilitator who provides a structure which supports a self-directed learning approach" (p. 5).

Terry (2002). "AS students generate their own interest in a presentation's subject matter by creating mental images as they follow the teacher's train of thought" (Teacher-Led Classroom Presentations section, ¶ 2).

26. staying on task with minimal supervision

Fischer & Fischer (1979). "Teachers prescribe the materials to be learned and demand specific performance on the part of the students" (p. 251).

Gregorc & Butler (1984). "Concrete Sequential: Structured assignments" (p. 28).

Terry (2002). "[CS learners] prefer to complete assignments independently, at least partly because of their preoccupation with course grades" (Student Group Discussions and Projects section, ¶ 1).

Terry (2002). "CS students are highly organized and dedicated independent workers who focus on details" (Individual Assignments section, ¶ 1).

27. experimenting with new ideas ASCD (1950). "Early Childhood: The child is ordinarily permitted enough actual manipulation so that he begins to develop the ability to perceive differences in weights of objects and to improve his perception of space" (p. 116). Gregorc & Butler (1984). "CR learners investigate, experiment and invent new ways of doing things" (p. 29). Robles (1998). "The majority of today's … learners respond best to learning situations that are experiential, concrete, and related to their values, interests, and needs. They need structure and feedback" (p. 18). Terry (2002). "CR students are prone to interrupt teacher presentations with new ideas of their own that take the train of thought in a totally different direction" (Teacher-Led Classroom Presentations section, ¶ 4). Wood (1994). "Learning goes from hand to head, not the other way around" (p. 31).
28. relating real life situations to abstract concepts Fischer & Fischer (1979). "They see connections between what they are learning and many other facets of life" (p. 250). Gregorc & Butler (1984). "For [the AS], hands-on training is a way to understand the working application of a subject rather than an end in itself" (p. 28).
29. brainstorming ideas Dunn & Dunn (1979). "Brainstorming exercises and other small-group techniques tend to facilitate learning" (p. 240). Gregorc & Butler (1984). "CR learners investigate, experiment and invent new ways of doing things" (p. 29). Gregorc & Butler (1984). "CR learners create original, unusual and varied products" (p. 29). Terry (2002). "CR students are prone to interrupt teacher presentations with new ideas of their own that take the train of thought in a totally different direction" (Teacher-Led Classroom Presentations section, ¶ 4).

30. engaging in whole class activities

Bowman (2004). "Human beings have an innate need to hear and tell stories because those stories provide a lens through which they can view things that happen to them. Stories ignite self-awareness and engender self-confidence. Teachers as leaders recognize the power of stories and often use them in the classroom to focus attention and frame purpose. Stories, metaphors, analogies, and evocative questions capture interest and sustain collective engagement" (Management of Attention section, ¶ 2).

Gregorc & Butler (1984). "Concrete Random: mini-lectures & exploration" (p. 29).

Griggs, S. (1989). "Low-income black children fail to achieve academically because they are enrolled in classrooms that emphasize whole-group instruction that fails to engage the child on an affective level in the learning process" (p. 135).

Stitt-Gohdes, Crews, & McCannon (1999). "'Many … children fail to achieve academically because they are enrolled in classrooms that emphasize whole-group instruction that fails to engage the child on an affective level in the learning process'" (Learning and Instructional Styles section, ¶ 6).

Wood (1994). "Learning goes from hand to head, not the other way around" (p. 31).

31. considering logical solutions

Gregorc & Butler (1984). "The AS channel prompts us to be intellectual, logical and rational" (p. 28).

Terry (2002). [AS Students] prefer abstract learning tasks that require the use of analytical logic to synthesize and relate concepts" (Individual Assignments section, ¶ 2).

32. being motivated internally

Griggs (1989). "Correlational data further reveal that the higher the grade level, the less teacher-motivated students become"(p. 136).

Griggs (1989). "There is a greater need to learn and study alone among more students in grades nine, ten, eleven, and twelve than during any other interval" (p. 136).

Northouse (2004). "Subordinates usually start out motivated and eager to learn, then they may become discouraged and disillusioned, next they may begin to lack confidence or motivation, or both, and last they become highly confident and motivated" (p. 95).

Robles (1998). "The adult learners are the ones who identify their interests and their needs with the help of a teacher/facilitator who provides a structure which supports a self-directed learning approach" (p. 5).

Robles (1998). "'We are not likely to be committed to invest energy in learning something that we do not really value'" (p. 9).

Terry (2002). "AS students relish independent work" (Individual Assignments section, ¶ 2).

33. being motivated externally Northouse (2004). "Subordinates usually start out motivated and eager to learn, then they may become discouraged and disillusioned, next they may begin to lack confidence or motivation, or both, and last they become highly confident and motivated" (p. 95). Stitt-Gohdes, Crews, & McCannon (1999). "'Many … children fail to achieve academically because they are enrolled in classrooms that emphasize whole-group instruction that fails to engage the child on an affective level in the learning process'" (Learning and Instructional Styles section, ¶ 6).
34. communicating their ideas with the teacher Gregorc & Butler (1984). "Abstract Random: They tend to enter fields … that maximize relationships with others" (p. 28). Gregorc & Butler (1984). "Abstract Random: They have a natural ability to work well with people" (p. 28). Hoyt & Lee (2002). Those scoring high on this scale communicate caring through relationships they establish with their students" (p. 3). Stitt-Gohdes, Crews, & McCannon (1999). "Children's learning needs would be best served 'through small-group learning and peer tutoring'" (Learning and Instructional Styles section, ¶ 6). Terry (2002). "[Abstract Random learners] thrive on building relationships with others" (Student Group Discussions and Projects section, ¶ 3).
35. being inspired Hoyt & Lee (2002). "Those who scored high on this scale. . . . inspired students to set and achieve goals which really challenged them" (p. 3). Stitt-Gohdes, Crews, & McCannon (1999). "'Many … children fail to achieve academically because they are enrolled in classrooms that emphasize whole-group instruction that fails to engage the child on an affective level in the learning process'" (Learning and Instructional Styles section, ¶ 6).
36. by doing Barbe & Milone (1981). "Sometime between the late elementary grades and adulthood another shift occurs. Vision remains the dominant modality, but audition becomes more important than kinesthesia" (p. 378). Gregorc & Butler (1984). "Concrete Random: simulations; exploration" (p. 29). Wood (1994). "Learning goes from hand to head, not the other way around" (p. 31).

37. independently extracting main ideas from texts and lectures

Gregorc & Butler (1984). "The abstract sequential channel permits us to deal with abstract ideas, theories and hypotheses. It prompts us to be intellectual, logical and rational" (p. 28).
Seidel & England (1997). "The Abstract Sequential (AS) leaner … is abled to extract main ideas from a logical presentation" (p. 6).
Terry (2002). "AS students generate their own interest in a presentation's subject matter by creating mental images as they follow the teacher's train of thought" (Teacher-Led Classroom Presentations section, ¶ 2).

38. playing a game

Gregorc & Butler (1984). "Concrete Random: Computer and other games" (p. 29).
Griggs, S. (1989). "Low-income black children fail to achieve academically because they are enrolled in classrooms that emphasize whole-group instruction that fails to engage the child on an affective level in the learning process" (p. 135).
Seidel & England (1997). "The Concrete Random (CR) leaner … prefers the teaching methods of games" (p. 6).

39. sharing how learning relates to their own needs

Robles (1998). "The adult learners are the ones who identify their interests and their needs with the help of a teacher/facilitator who provides a structure which supports a self-directed learning approach" (p. 5).
Robles (1998). "The majority of today's … learners respond best to learning situations that are experiential, concrete, and related to their values, interests, and needs. They need structure and feedback" (p. 18).

40. having their work guided by the teacher

Dunn & Dunn (1979). "The unmotivated – those who are not persistent and/or the less responsible students – require short assignments or very few objectives, frequent feedback, a great deal of supervision, and authentic praise *as they are working*" (p. 239).
Fischer & Fischer (1979). "These teachers plan the means and ends of instruction with student cooperation. The are still 'in charge' of the learning process, but with their adult experience and professional background, they guide the students' learning" (p. 251).
Stitt-Gohdes, Crews, & McCannon (1999). "Children's learning needs would be best served 'through small-group learning and peer tutoring'" (Learning and Instructional Styles section, ¶ 6).

Appendix C

Grade Level Characteristics Preferences Survey

McNaughton's Grade Level Characteristics
Preferences Survey

Put an "X" on the side that describes your natural preference.
Would you prefer...

Grades PreK-3 (4-8 years old)	Grades 4-8 (9-13 years old)
1. To lead and supervise gross motor activities in the classroom, i.e., jumping and moving	1. To keep physical activities outside
2. To keep the pace of activities moving, changing every 10-15 minutes	2. To direct students who can concentrate and read for 15-30 minutes or more
3. To clean up students' spills and messes	3. To let students clean up their own spills and messes
4. To share classroom responsibilities such as passing out snacks	4. To share leadership roles, i.e., solving classroom social problems
5. To deal with students who are fearful and worried	5. To deal with students who seek to belong
6. To encourage dress up, imagination, and dramatic play	6. To encourage interest in theater and rehearsed plays
7. To set up classroom rules and routines that direct student behavior	7. To consider students' input when establishing classroom rules

8. To give students surprises and treats	8. To surprise students with special organized activities or extra recesses
9. To read aloud expressively to students	9. To provide sustained silent reading time for students
10. To teach where students use manipulatives, i.e., magnets, cubes, funnels, and measuring cups	10. To teach where students take notes from visuals, i.e., posters, drawings, overheads, and PowerPoint presentations
11. Students who are friendly and chatty	11. Students who are insightful or empathetic
12. Students who feel they must share their evening/weekend family experience stories with the teacher	12. Students who share their evening/weekend family experience stories with their peers but generally do not feel the need to tell the teacher
13. Students who share their own thoughts and feelings	13. Students who think abstractly from various viewpoints
14. Students who experience frequent minor illnesses	14. Students who experience frequent minor mood changes and sensitivity
15. Students who defer to the teacher to resolve minor conflicts	15. Students who attempt to resolve conflicts on their own
16. Students who, upon completion of their work, like to color and paint or write and send notes in code	16. Students who, upon completion of their work, enjoy logic puzzles and brain teasers
17. Students who enjoy scripted knock-knock jokes	17. Students who appreciate double meanings and spontaneous humor

18. Students who prefer to see their work displayed on bulletin boards	18. Students who prefer instructional and interactive bulletin boards
19. A noisier/more talkative classroom during the day but less time spent grading after-school	19. A quieter/less talkative classroom during the day but more time spent grading after-school
20. Students who prefer artistic explorations in clay, paints, coloring, book making, weaving	20. Students who prefer exploration in more complicated visual-motor tasks, i.e., calligraphy, detailed drawings, or musical instruments
21. A classroom environment where students primarily seek to do their personal best and are unaware of how peers are performing	21. A classroom environment where students primarily seek to do better than their peers

*Grade/Age Level Characteristics adapted primarily from Chip Wood's *Yardsticks: Children in the Classroom Ages 4-12*.

Wood, C. (1994). *Yardsticks: Children in the classroom ages 4-12*. Greenfield, MA: Northeast Foundation for Children.

Appendix D

Grade Level Characteristics Preferences Survey With Theoretical Support

McNaughton's Grade Level Characteristics
Preferences Survey
With
Theoretical Support

Put an "X" on the side that describes your natural preference.
Would you prefer...

Grades PreK-3 (4-8 years old)	Grades 4-8 (9-13 years old)
1. To lead and supervise gross motor activities in the classroom, i.e., jumping and moving	1. To keep physical activities outside
ASCD (1950). "Early Childhood: Thus, organized games exist in early childhood, provided an adult keeps them going" (p. 98). Clark (1984). "Like active play and games" (p. 8) Havighurst (1953). "To learn the physical skills that are necessary for the games and physical activities that are highly valued in childhood" (p. 28) Salot & Leavitt (1965). "Very active physically and able to skip, jump, dance" (p. 4) Wood (1972). "Enjoy much physical activity" (p.32) Wood. "Continued need for a great deal of active outdoor and indoor physical activity" (p. 44)	ASCD (1950). "Late Childhood: There is a tremendous increase in interest in organized games, many of which have exceedingly complex systems of rules" (p. 103). Clark (1984). "Need opportunity to move" (p. 17) Clark. "Restless" (p. 26) Havighurst (1972). "Physical skills are necessary for the games and physical activities highly valued" (p. 19) Wood (1972). "Desperately need outdoor time and physical challenge" (p. 92) Wood. "Need a great deal of physical activity, large muscle development; upper body strength generally undeveloped; extra recess, play time a must or will spill over into acting-out behavior" (p. 94) Wood. "Love group games, relays, group initiatives; class outings, 'ropes course,' double-dutch clubs, team sports, other organized activities" (p. 94)

2. To keep the pace of activities moving, changing every 10-15 minutes Clark (1984). "10-15 minutes is the recommended maximum length of time" (p. 17) Salot & Leavitt (1965). "His attention span is short" (p. 3) Wood (1972). "Can sit still for only brief periods." (p. 32)	2. To direct students who can concentrate and read for 15-30 minutes or more Clark (1984). "The maximum time spent on the lesson should be 15 to 20 minutes" (p. 26) Wood (1972). "Able to concentrate, read for extended periods" (p. 93) Wood. "Able to focus well, concentrate on task at hand" (p. 94)
3. To clean up students' spills and messes Clark (1984). "Cannot do small detailed work" (p. 8) Clark. "Likes to do things for themselves" (p. 10) Clark. "Lacks coordination of eyes and hands" (p. 8) Salot & Leavitt (1965). "Eye-hand coordination is difficult for him" (p. 4) Thomas (1992). "Developing large muscle control; Learning to coordinate large and small muscles" (p. 86) Wood (1972). "Sometimes appear clumsy, awkward; spills and accidents common" (p. 32)	3. To let students clean up their own spills and messes Clark (1984). "Able to care for themselves" (p. 26) Wood (1972). "Love to work cooperatively" (p. 77) Wood. "Increased coordination leads to greater control" (p. 84) Wood. "Adult personality begins to emerge" (p. 116)
4. To share classroom responsibilities such as passing out snacks Clark (1984). "Likes to do things for themselves (p. 10) Salot & Leavitt (1965). "Usually dependable, obedient, and cooperative" (p. 4) Wood (1972). "Like responsibility of a 'big person' job (setting the table, folding the clothes, putting out the snack)" (p. 32) Wood. "Likes to help; cooperative, wants to be 'good' (p. 42)	4. To share leadership roles, i.e., solving classroom social problems Clark (1984). "Likes to have a part in making group plans" (p. 27) Clark. "Interested in social problems" (p. 28) Havighurst (1972). "To present moral problems and dilemmas to students, to encourage and help them to think effectively about these problems" (p. 31) Havighurst, "By the end of elementary school, this same child has a cull complement of social attitudes" (p. 34) Wadsworth (1996). Rules can be changed by consensus (p. 126) Wood (1972). "Developing more mature sense of right and wrong, good at solving social issues" (p. 92) Wood. "Class meetings, peer mediation, student councils, cross-age tutoring highly effective" (p. 107)

5. To deal with students who are fearful and worried Clark (1984). "May have fears of imaginary or real things" (p. 13) Clark. "Easily discouraged" (p. 13) Wood (1972). "Sometimes fearful, worried; nightmares" (p. 32)	5. To deal with students who seek to belong Clark (1984). "Are influenced by their peer group" (p. 28) Havighurst (1972). ""The child moves out from the family circle into the world of his age-mates at the beginning of middle childhood" (p. 22) Wood (1972). "Inclusion/exclusion; height of cliques; seeks to belong" (p. 104) Wood. "Peers more important than teachers" (p. 116)
6. To encourage dress up, imagination, and dramatic play Clark (1984). "Provide activities that allow their creativity to be exercised: e.g., drama" (p. 10) Wood (1972). "Learn best … by acting out stories and fairy tales" (p. 31) Wood. "Like to imitate adult roles through imaginative play – dress-up, dramatic play" (p. 33) Wood. "Small dramas and role plays help teach social skills" (p. 35)	6. To encourage interest in theater and rehearsed plays Clark (1984). "Channel their creativity into drama" (p. 27) Wood (1972). "More interest and depth in drama, debate, performance" (p. 118)
7. To set up classroom rules and routines that direct student behavior Clark (1984). "Have clear, simple rules" (p. 8) Clark. "Teach them … that some rules are for everyone" (p. 10) Havighurst (1972). "The child learns that rules are necessary and useful" (p. 29) Thomas (1992). "Developing ability to take directions, to be obedient in presence of authority" (p. 85) Wood (1972). "Likes rules and routines" (p. 42)	7. To consider students' input when establishing classroom rules Clark (1984). "Have a strong sense of fairness and justice" (p. 28) Wood (1972). "Developing more mature sense of right and wrong, good at solving social issues" (p. 92) Wood. "Fairness issues peak and can be solved" (p. 92) Wood. "Can establish and modify rules" (p. 105)

8. To give students surprises and treats Wood (1972). "Likes surprises and treats" (p. 56)	8. To surprise students with special organized activities or extra recesses Wood (1972). "Extra recess, play time a must or will spill over into acting-out behavior" (p. 94) Wood. "Love group games, relays, group initiatives; class outings, 'ropes course,' double-dutch clubs, team sports, other organized activities (p. 94)
9. To read aloud expressively to students Clark (1984). "Interested in facts and true stories" (p. 19) Wood (1972). "They learn best … by being read to" (p. 31) Wood. "Love being read to – individually, small groups, whole class" (p. 34)	9. To provide sustained silent reading time for students Clark (1984). "Probably will do more free-time reading during these years than … any other time in life" (p. 26) Clark. "They are good readers" (p. 27)Wood (1972). "Reading to learn, instead of learning to read" (p. 85) Wood. "Voracious readers" (p. 93) Wood. "Able to concentrate, read for extended periods" (p. 93)
10. To teach where students use manipulatives, i.e., magnets, cubes, funnels, and measuring cups ASCD (195). "Reasoning about what is not observable represents shaky ground for children at this level" (p. 121). Clark (1984). "Curious" (p. 19) Havighurst (1972). "It may be urged that the school curriculum be as full of concrete experience as possible in the early years" (p. 28) Wood (1972). "Manipulative experiences important in many areas of room – magnets, pullies in science area; puzzles, interlocking cubes in math; scoops, funnels, measuring cups in sand table, etc." (p. 34) Wood. "Learn best through active exploration of concrete materials – blocks, manipulatives, paints, arts and crafts, sand and water, etc." (p. 45) Wood. "Wants to discover how things work; likes to take things apart" (p. 67)	10. To teach where students take notes from visuals, i.e., posters, drawings, overheads, and PowerPoint presentations Barbe & Milone (1981). "Sometime between the late elementary grades and adulthood another shift occurs. Vision remains the dominant modality, but audition becomes more important than kinesthesia" (p. 378). Clark (1984). "Respond to visual stimuli" (p. 27) Clark. "Use posters, charts, and pictures to help you reach them" (p. 27) Wood (1972). "Can copy from board" (p. 84)

11. Students who are friendly and chatty	11. Students who are insightful or empathetic
Clark (1984). "Like to talk" (p. 12) Clark. "Want to make friends" (p. 12) Havighurst (1953). "To learn the give-and take of social life among peers" (p. 30) Salotn& Leavritt (1965). "Seeks friendships" (p. 3) Thomas (1992). "Beginning to develop ability to interact with age-mates" (p. 84) Wood (1972). "Friendly, gregarious, chatty, 'bubbly' age" (p. 32) Wood. "*Very* talkative; likes to explain: "…and you know what, teacher? …" (p. 33) Wood. "Talkative" (p. 75)	Wood (1972). "Good listeners, actively receptive" (p. 92) Wood. "Empathetic" (p. 116)
12. Students who feel they must share their evening/weekend family experience stories with the teacher	**12. Students who share their evening/weekend family experience stories with their peers but generally do not feel the need to tell the teacher**
Clark (1984). "Talk to impress adults" (p. 12) Clark. "Need assurances that people love them" (p. 13) Wood (1972). "*Very* talkative; likes to explain: "…and you know what, teacher? …" (p. 33) Wood. "Like to touch base frequently with teacher" (p. 69)	ASCD (1950). "Late Childhood: As adult fallibility becomes more and more apparent, the identification with adults becomes less and less strong. Identification with one's age-mates begins to take its place" (p. 93). ASCD. "Late Childhood: The teacher no longer plays a central role in his life" (p. 99). Clark (1984). ""Friends are important" (p. 20) Havighurst (1953). During middle childhood, the need for social approval, which has been acquired during infancy, is met increasingly by approval from the peer group and decreasingly by approval from the family" (p. 31) Havighurst (1972). "The child moves out from the family circle into the world of his age-mates at the beginning of middle childhood." (p. 22) Thomas (1992). "Establishing peer grouping and learning to belong" (p. 84) Wood (1972). "Basically cooperative nature encourages group activity, whole class cohesion, cooperative learning" (p. 95) Wood. "Great need is to be with their friends. Teachers and parents take a back seat" (p. 111) Wood. "Peers more important than teachers" (p. 116)

13. Students who share their own thoughts and feelings	13. Students who think abstractly from various viewpoints
Clark (1984). "Are self-centered" (p. 12) Wood (1972). "Listens, but so full of ideas cannot always recall what has been said" (p. 75) Wood. "Likes to explain ideas" (p. 75)	ASCD (1950). "Late Childhood: Children learn to apply the abstract principles of fairness and unfairness, right and wrong" (p. 103). ASCD (1950). "Early Adolescence: He comprehends more fully those ideas or relations whose content is symbolized in abstract terms" (p. 122). Clark (1984). "Age of idealism" (p. 27) Clark. "Interested in social problems" (p. 28) Havighurst (1953). "It is toward the close of middle childhood that the power of abstract thinking begins to show itself" (p. 90) Havighurst (1972). "A certain level of complexity in organization must be achieved by the brain before it can acquire a concept of a given level of abstraction" (p. 27) Havighurst. "During the period of middle childhood the individual forms several thousand concepts. If these concepts are true to reality, a good share of them must have grown out of his concrete experience." (p. 27) Thomas (1992). "Moving from the concrete to the abstract; applying general principles to the particular" (p. 87) Wadsworth (1996) Children in Piaget's Concrete Operational Stage begin to take the view of others (p. 126) Wood (1972). "Increased ability to abstract" (p. 93) Wood. "Able to abstract" (p. 105) Wood. "Deductive reasoning advances" (p. 105) Wood. "Increased ability to abstract in intellectual pursuits" (p. 117) Wood. "Can and will see both sides to an argument" (p. 117)
14. Students who experience frequent minor illnesses	14. Students who experience frequent minor mood changes and sensitivity
Clark (1984). "Tire easily" (p. 8) Salot & Leavitt (1965). "He is highly susceptible to disease at this age" (p. 4) Wood (1972). "Easily tires; frequent illnesses" (p. 56)	Clark (1984). "Change mood and attitudes quickly" (p. 21) Wood (1972). "Can be sullen and moody" (p. 82)

15. Students who defer to the teacher to resolve minor conflicts	15. Students who attempt to resolve conflicts on their own
Wadsworth (1996). Children in Piaget's Preoperational stage: games played in isolation, no cooperation or social interaction; Children in Piaget's Concrete Operational stage: rules are observed though there is little agreement as to what the rules are ((p. 126) Wood (1972). "Easily redirected from inappropriate behavior; teacher language all important to help children to use language instead of physical reaction – 'Use words,' 'Tell her what you want,' 'Ask if he is through,' etc. (p. 35) Wood. "Dependent on authority; wants to be told what to do, but also finds it difficult to see things from another's viewpoint" (p. 42) Wood. "Consistent rules and discipline even more necessary" (p. 49) Wood. "Teacher's use of frequent questioning and redirecting works better now" (p. 49)	Clark (1984). "Like to be trusted" (p. 20) Clark. "Have a strong sense of fairness and justice" (p. 28) Wadsworth (1996). Children in Piaget's Formal Operational stage: Rules can be changed by consensus; Individuals can decide rules of interest for their own sake (p. 126) Wood (1972). "Can work in groups; arguing, disputes about facts, rules, directions may take longer than actually activity" (p. 84) Wood. "Work things out for themselves" (p. 102)
16. Students who, upon completion of their work, like to color and paint or write and send notes in code	16. Students who, upon completion of their work, enjoy logic puzzles and brain teasers
Clark (1984). "Developing an interest in people" (p. 20) Clark. "Provide activities in which they can use their hands" (p. 8) Wood (1972). "Loves to color; paint" (p. 57) Wood. "Likes to send notes" (p. 67)	Clark (1984). "Provide things to stimulate their interests – puzzles, contests, quizzes, codes" (p. 27) Wood (1972). "Interest in rules (and challenging rules) makes board games, intellectual puzzles, brain teasers, even tests enjoyable, productive" (p. 107)
17. Students who enjoy scripted knock-knock jokes	17. Students who appreciate double meanings and spontaneous humor
Wood (1972). "Loves jokes and guessing games" (p. 57) Wood. "Enjoy virtually any kind of humor, including riddles, limericks, and knock-knock jokes" (p. 73)	Wood (1972). "Double meanings, word play, jokes of intellectual interest" (p. 117)

18. Students who prefer to see their work displayed on bulletin boards	18. Students who prefer instructional and interactive bulletin boards
Clark (1984). Need adult assurance, group approval Wood (1972). "Needs approval" (p. 42) Wood. "Artistic explosion – children need to feel their attempts are valued, that there is no right or wrong way to approach an art medium" (p. 58) Wood. "Classroom attention to products, proper display of work is entirely appropriate" (p. 69) Wood. "Interest in process and product of school work; peers' assessment of work as important as teacher's" (p. 77)	Clark (1984). "Open to instruction" (p. 27) Wood (1972). "High interest in current events, politics, social justice; also pop culture, materialism" (p. 117)
19. A noisier/more talkative classroom during the day but less time spent grading after-school	**19. A quieter/less talkative classroom during the day but more time spent grading after-school**
Clark (1984). "Full of energy" (p. 8) Clark. "Like to talk" (p. 12) Salot & Leavitt (1965). "Amused by noises, funny faces, and things falling upside down" (p. 4) Wood (1972). "Noisy in classroom" (p. 56) Wood. "Allow a busy level of noise and activity" (p. 58)	Clark (1984). "Can work without adult supervision" (p. 27) Wood (1972). "Voracious readers" (p. 93) Wood. "Able to concentrate, read for extended periods" (p. 93) Wood. "'Quiet time' in school day useful for physical rest, break from academics and social dynamics" (p. 106) Wood. "Sustains reading for long periods; visual concentration better; longer periods on the computer" (p. 118)

20. Students who prefer artistic explorations in clay, paints, coloring, book making, weaving Clark (1984). "Provide activities in which they can use their hands. Play dough and art activities are good choices" (p. 8) Clark. "Provide opportunities for creativeness" (p. 19) Salot & Leavitt (1965). "Providing large crayons, picture books, paint and crayon paper in order to emphasize large muscle, rather than small muscle activities" (p. 6) Wood (1972). "Learn best by … manipulating clay, paint brushes, finger paints" (p. 31) Wood. "Artistic explosion – clay, paints, dancing, coloring, book making, weaving" (p. 58)	20. Students who prefer exploration in more complicated visual-motor tasks, i.e., calligraphy, detailed drawings, or musical instruments ASCD (1950). "Late Childhood: The finer muscles of hands and fingers are now sufficiently developed so that the child is able to undertake learnings that require a large degree of manual dexterity, such as writing, sewing, and woodwork." Clark (1984). "Talents are beginning to appear" (p. 27) Clark. "Channel their creativity into … art and painting" (p. 27) Havighurst (1953). "There is some evidence that the body is not biologically 'ready' for handwriting before the sixth year. That is, the nerves and muscles of the fingers, hand, and arm have not developed to the degree that permits the learning of handwriting before this age" (p. 33) Thomas (1992). "Improving skill in use of small muscles" (p. 86) Wood (1972). "Increased coordination leads to greater control, interest in detail; cursive handwriting can be fully mastered" (p. 84) Wood. "Practice with a variety of fine motor tools and tasks useful (weaving, knitting, carving, drawing)" (p. 84)
21. A classroom environment where students primarily seek to do their personal best and are unaware of how peers are performing Clark (1984). "Perfectionists" (p. 10) Clark. "Haven't learned to work with others" (p. 12) Wood (1972). ""Hard workers and often perfectionists" (p. 62) Wood. "Needs closure; must complete assignments" (p. 67) Wood. "Likes to work slowly" (p. 67) Wood. "Likes to work alone" (p. 67)	21. A classroom environment where students primarily seek to do better than their peers Clark (1984). "Are keen competitors and will often compete with others to gain recognition" (p. 28) Havighurst (1972). "More or less competing for the attention of one 'mother person' or 'father person' – the teacher or adult supervisor" (p. 22)Wood (1972). "Highly competitive" (p. 82) Wood. "Love to challenge themselves individually, race against each other or against clock" (p. 84) Wood. "Fairness issues increase; can be deadly serious about competitiveness – competition in the curriculum, gym classes, etc. should be presented with a sense of fun, lightness, humor" (p. 85)

Appendix E

Reliability of Parker's FIRESIDE Instructional Management Profile and McNaughton's Grade Level Preference Survey

Cronbach's alpha indicates how well a set of variables measures a single unidimensional construct, (i.e., an instructional management style). Cronbach's alpha was applied to the data from 30 pre-service teachers' responses to Parker's FIRESIDE Instructional Management Style Profile. The profile measures ratings of four instructional management styles. Thus, four subgroups of ten questions were taken separately for the analysis. The ten-question subgroups are the ten questions that reflect a particular instructional management style. The alpha of each subset was used to measure internal consistency. Using Cronbach's alpha, the internal reliability coefficients were 0.73, 0.62, 0.82, and 0.77 for the FIRESIDE profile. According to UCLA Academic Technology Services (n.d.), "A reliability coefficient of .70 or higher is considered acceptable in most Social Science research situations." The average correlation among items is 0.74, which is acceptable for social science research.

For addressing the issues of homogeneity and utility of McNaughton's Grade Level Preference Survey (2006), Cronbach's alpha was used with the data from 30 pre-service teachers' responses to the survey. Cronbach's alpha was applied to split-halves of the survey. The alpha of each subset was 0.96 and 0.97, indicating a high degree of internal reliability. Thus, the data indicates that McNaughton's Grade Level Preference Survey is reliable.

Appendix F

Age Level Characteristics: Preschool through Adults

Preschool: Ages 3, 4, and 5

In *Guiding the Preschool Child*, Askew (1985) described several age level characteristics of pre-kindergarten children, ages 3, 4, and 5. Physically, these children are energetic so they can sit still for only brief periods (Askew, p. 8). Pre-kindergarten children may even stand up to do their work. To develop large muscle control, these children need opportunities to run, skip, jump, hop, and walk on their tiptoes (Askew, p. 8). With the need to move comes the need to learn by doing (Askew, p. 8). Pre-kindergartners usually make noise when learning (Askew, p. 8). Pre-kindergarten children are curious but need concrete items from which to learn. They learn better from being shown than from being told (Askew, p. 9). Centers for books, blocks, puzzles, manipulatives, nature, and housekeeping should be geared to their developmental level so they can succeed (Askew, p. 8). Their vision and fine motor skills are still developing. Havighurst (1953) said, "The eyes are not biologically 'ready' for reading in most cases before the sixth year" (Askew, p. 33). As a result, activities such as building with blocks, kneading play dough, clapping, coloring and cutting can be used to develop small muscle control (Askew, p. 9). Dunn and Kontos (1997) observed that children are less stressed in child-initiated environments that endorse developmentally appropriate practices than in didactic environments where activities are not matched with age level characteristics (p. 2).

According to Askew (1985), socially, pre-kindergartners need individual attention. They need someone who listens and praises their accomplishments (Askew, 9). They are developing a sense of humor, are amused by their playmates, and are learning to take turns and share (Askew, p. 9).

Kindergartner: Age 5

Although no two children are alike, Salot and Leavitt (1965) in *The Beginning Kindergarten Teacher* described five-year-olds as curious and interested in everything in their world (p. 3). They mainly learn by observation and experience (Salot & Leavitt, p. 3). Although their imagination is vivid, they are able to distinguish between truth and fantasy (Salot & Leavitt, p. 3). The attention span of a kindergartner is short but increases during the year (Salot & Leavitt, p. 3).

Physically, five-year-olds are active and like to skip, jump, and dance. Their eyes are not yet mature so eye-hand coordination is difficult (Salot & Leavitt, 1965, p. 4). Five-year-olds are highly susceptible to disease (Salot & Leavitt, p. 4).

Socially, five-year-olds like to play alone, but also seek friendships (Salot & Leavitt, 1965, p. 3). They have developed a sense of ownership but are learning to share (Salot & Leavitt, p. 3). They are eager to please (Salot & Leavitt, p. 3). Their desire for attention might lead to showing off by performing stunts or calling out in class (Salot & Leavitt, p. 4).

First Grader: Age 6

In *Guiding the Elementary Child*, Clark (1984) described several age level characteristics of six-year-olds. Six-year-olds have an abundance of energy (Clark, p. 7). Correspondingly, they have difficulty sitting still and tire easily (Clark, p. 7). Six-year-

olds are able to listen even when moving and stretching out on the floor (Clark, p. 7). They enjoy active games (Clark, p. 8). In addition to needing frequent periods of movement, six-year-olds have a short attention span (Clark, p. 10). Because six-year-olds are curious and enjoy trying new things (Clark, p. 10), teachers should include a variety of activities to capture their interests (Clark, p.10). Teachers can also vary the pace of the class by interspersing activity time with quiet time (Clark, p. 7).

Six-year-olds like to do things for themselves (Clark, 1984, p. 10). They learn better by doing than by listening (Clark, p. 9). They want to do many things all at once (Clark, p. 11) and have a hard time choosing which activity to do (Clark, p. 10). Six-year-olds enjoy using their hands although they are unable to do small detailed work (Clark, p. 8). They lack eye-hand coordination (Clark, p. 8).

Six-year-olds want to be first (Clark, 1984, p. 8) and to be the boss (p. 11). Six-year-olds believe the rules are made for others (Clark, p. 9). They may compete with others for the attention of adults (Clark, p. 11). Often they are very talkative as a way to impress adults (Clark, p. 11). They talk about real things, but their topics may be unrelated to what is being said (Clark, p. 11). They exaggerate (Clark, p.11). Six-year-olds also want to be accepted by others (Clark, p. 11). They are sensitive to criticism from others, though they might be critical of their own work (Clark, p. 12). Their feelings can change quickly (Clark, p. 14). To them, the world is a little scary (Clark, p. 11). They can be easily discouraged so they need assurance that people love them (Clark, p. 13).

Second Grader: Age 7

According to Clark (1984), several of the age level characteristics of six-year-olds overlap with the seven-year-olds. Seven-year-olds have an abundance of energy (Clark, p. 7). Correspondingly, they have difficulty sitting still and tire easily (Clark, p. 7). Seven-year-olds are able to listen even when moving and stretching out on the floor (Clark, p. 7). In addition to needing frequent periods of movement, seven-year-olds have a short attention span (Clark, p. 10). Teachers should include a variety of activities to capture their interests (Clark, p. 10). They need adventure (Clark, p. 9). They need opportunities to achieve and do (Clark, p. 10). Teachers can also vary the pace of the class by interspersing activity time with quiet time (Clark, p. 7). They enjoy reading (Clark, p. 10). Seven-year-olds are very creative and like to use their hands (Clark, p. 9). They have better use of their smaller muscles than they did when they were younger (Clark, p. 9).

Seven-year-olds want to be accepted by others (Clark, 1984, p. 11). They evaluate their conduct by what others are doing (Clark, p. 10). They may compete with others for the attention of adults (Clark, p. 11). Often they are very talkative or exaggerate as a way to impress adults (Clark, p. 11). Seven-year-olds want to be accepted by their peers (Clark, p. 10). They are perfectionists who are afraid to make mistakes (Clark, p. 10). They are sensitive to criticism and may try to avoid new or different situations (Clark, p. 14). They may retreat to deal with difficulties (Clark, p. 13). They are fearful of both real and imaginary things (Clark, p. 13).

Third Grader: Age 8

Clark (1984) described several age level characteristics of eight-year-olds in *Guiding the Elementary Child*. Their attention span is about 10 to 15 minutes (Clark, p. 17). Eight-year-olds are healthier than 6- or 7-year-olds (Clark, p. 17). They are full of energy and need an opportunity to move (Clark, p. 17). They like organized games (Clark, p. 17). They prefer tag to toys (Clark, p. 17). They have good eye-hand coordination (Clark, p. 17). They would rather make things to use than have them already made (Clark, p. 18). Thus, teachers should provide opportunities for creativity. Eight-year-olds are collectors (Clark, p. 18). For them, quantity is more important than quality (Clark, p. 18). They are curious and want to explore (Clark, p. 18). Thus, teachers should bring in things that students can touch and examine (Clark, p. 19). Teachers should attempt to answer or help them find answers to their questions (Clark, p. 19).

Eight-year-olds are eager to learn (Clark, 1984, p. 19). They want to do things for themselves (Clark, p. 21). They like to read aloud and study maps (Clark, p. 18). Learning games interest them (Clark, p. 19). Though their vocabulary might be limited, they enjoy watching television and are interested in facts and true stories (Clark, p. 19).

Eight-year-olds are developing an interest in people (Clark, 1984, p. 20). Friends and group approval are important to them (Clark, p. 21). They accept responsibility and like to feel grown up (Clark, p. 20). They resent being bossed (Clark, p. 21). An eight-year-old has a strong sense of fairness and justice (Clark, p. 20). They are sensitive to criticism though they may be critical of themselves (Clark, p. 21). They can be complainers (Clark, p. 21). They need adult assurance (Clark, p. 21).

Fourth Grader: Age 9

Several of the age level characteristics of eight-year-olds in *Guiding the Elementary Child* (Clark, 1984) are also characteristic of nine-year-olds. Their attention span is about 10 to 15 minutes (Clark, p. 17). They are full of energy and need an opportunity to move (Clark, p. 17). They are more competitive as a group member than as an individual (Clark, p. 20). They may release tension through fiddling around, picking their nails, or combing their fingers through their hair (Clark, p. 17). They are curious and want to explore (Clark, p. 18). Thus, teachers should bring in things that students can touch and examine (Clark, p. 19). Teachers should attempt to answer or help them find answers to their questions (Clark, p. 19).

Nine-year-olds are open to instruction (Clark, 1984, p. 18). They like to show their skillfulness (Clark, p. 17). They like detailed and unusual information (Clark, p. 19). They like to make lists (Clark, p. 17).

A nine-year old is generally dependable and responsible (Clark, 1984, p. 17). Nine-year-olds like to be trusted (Clark, p. 20). They do not need praise to keep going but accept approval and benefit from it (Clark, p. 20). They are relatively easy to discipline (Clark, p. 22). They might not like to do something but will do it anyway (Clark, p. 21). A nine-year-old has a strong sense of fairness and justice (Clark, p. 20). They judge fairness by their own standard or the class's standard (Clark, p. 20). Nine-year-olds can be big worriers, but they change their mood and attitude quickly (Clark, p. 21). They look to adults to consider what they want to become (Clark, p. 18).

Fifth Grade: Age 10

Clark (1984) in *Guiding the Elementary Child* described the age level characteristics of ten-year-olds. They think creatively (Clark, p. 26) and like to read independently, especially mysteries and adventures (Clark, p. 26). Ten-year-olds like challenging puzzles, secret codes, practical magic, fun quizzes, and contests (Clark, p. 27). They often get absorbed in what they are doing and do not hear others talking (Clark, p. 30). They are creative (Clark, p. 26). They respond to visual stimuli so teachers should use posters, charts, and pictures to help them learn (Clark, p. 27). They have a longer attention span of 15 to 20 minutes (Clark, p. 26). They have a good imagination, and teachers should channel their interests into drama, art, and other activities (Clark, p. 27).

Ten-year-olds are doers and may overextend themselves in their involvement in activities (Clark, 1984, p. 25). They often must choose which activity to do first (Clark, p. 25). This is one of the healthiest times in life (Clark, p. 25). They will be both restless and tired at times (Clark, p. 26). Team games and group activities are important to them (Clark, p. 28). They like competition but group competition is usually preferred over individual competition (Clark, p. 29).

Ten-year-olds are open to instruction and are self-motivated (Clark, 1984, p. 27). They are able to work without adult supervision so teachers should let them do things by themselves unless they ask for help (Clark, p. 27). At ten-years of age, talents begin to appear (Clark, p. 27). They want to and are able to make choices so teachers should give them two or more choices when appropriate (Clark, p. 30). They like to help make group

plans (Clark, p. 28). They are cooperative with adults but resent adults talking down to them (Clark, p. 28).

Ten-years of age is the golden year for teaching sound ideals and ideas (Clark, 1984, p. 28). Students are ready to discuss simple social problems (Clark, p. 28). Their basic emotional attitudes are more predictable (Clark, p. 30). Ten-year-olds are generally happy with themselves; they are cooperative, easy going, friendly, and agreeable (Clark, p. 30). They are concerned about their relationship with their parents but like to be with their peers who influence them (Clark, p. 29). Ten-year-olds like to complain (Clark, p. 30). They have a strong sense of fairness and justice (Clark, p. 28). Because ten-year-olds strive for perfection, they may be critical of themselves and need assurance from their teachers (Clark, p. 30).

Sixth Grade: Age 11

Some of the same characteristics Clark (1984) used in *Guiding the Elementary Child* to describe the age level characteristics of ten-year-olds are also true of eleven-year-olds. They think creatively (Clark, p. 26), are curious (Clark, p. 27), and like to read independently, especially mysteries and adventures (Clark, p. 26). Eleven-year-olds like challenging puzzles, codes, quizzes, and contests (Clark, p. 27). They like details and enjoy impressing others with their knowledge of details and trivia (Clark, p. 28). They often get absorbed in what they are doing and do not hear others talking (Clark, p. 27). They have a good imagination; teachers should channel them into drama, art, and other activities (Clark, p. 27). They enjoy creating stories, poems, drama, role-plays, and art (Clark, p. 27). Teachers should use these types of activities to reinforce their lessons (Clark, p. 27).

Eleven-year-old boys are more restless than eleven-year-old girls (Clark, 1984, p. 26). Both are able to care for themselves (Clark, p. 26) and may complain of being tired (p. 26). Eleven-year-olds compete to gain personal recognition and may need instruction on the right and wrong ways to compete (Clark, p. 28).

Eleven-year-olds are in the age of idealism (Clark, 1984, p. 27). They set high standards for themselves and others (Clark, p. 30). They want acceptance from adults and regard adults as equal (Clark, p. 27). Eleven-year-olds are open to instruction and are self-motivated (Clark, p. 27). They are able to make choices so teachers should give them two or more choices when appropriate (Clark, p. 30). They are enthusiastic and like to help make group plans (p. 28). They resent adults talking down to them (Clark, p. 28). They are influenced by their peer group (Clark, p. 28), like to complain (p. 30), and have unsteady emotions (p. 30). But they have a strong sense of fairness and justice (Clark, p. 28), are honest (p. 27), and are interested in social problems (p. 28).

Children express fewer negative emotions as they develop (Rothbart & Jones, 1998, Dimensions of Treatment section, ¶ 1). As they move through the grade school years, they gain increased control of their behavior and emotion (Rothbart & Jones, Dimensions of Treatment section, ¶ 5). Older children tend to be concerned about competition and pleasing the teacher (Rothbart & Jones, Ego-Involvement and Mastery section, ¶ 9).

Middle School: Ages 12 and 13

Researchers of developmental tasks focus more attention on the period of adolescence than the other phases of the life span (Merriam & Mullins, 1981, p. 126). Adolescents experience problems daily that create stress and anxiety (Brown, D., 2005, p.

¶ 2; Knowles & Brown, 2000, p. 55). Most of them do not search out an adult for help and many do not choose to ask peers for help either. As a result, they often say harsh words and do inappropriate actions to their teachers. Because parts of the brain are still developing during adolescence, the cognitive developmental processes of middle school students are often marked by emotions (Brown, D., ¶ 8; Knowles & Brown, pp. 28, 109). Students at this age need teachers to listen to them (Brown, D., ¶ 14). They often "experience low self-esteem, have a sense of egocentrism, are emotionally sensitive, and are frequently impulsive in their actions and words" (Brown, D., ¶ 14). Havighurst (1972) said, "Independence from adults grows slowly and is by no means complete at the end of middle childhood" (p. 32).

In describing what middle school students are like, Knowles and Brown (2000) said they take social issues very seriously, the cry and laugh a lot, and they have difficulty attending to something for more than a minute at a time (p. 2). Knowles and Brown recommend that middle school teachers have a sense of humor, be flexible in instructional planning and delivery, and have an ability to listen and show unconditional care for students (pp. 5-6).

According to Piaget's theory of cognitive development, middle school students in the concrete operational stage grasp abstract principles better when the ideas are taught using hands-on activities and materials rather than through listening to a lecture or reading a textbook (Knowles & Brown, 2000, p. 18). Only about one-third of middle school students consistently use abstract thinking and formal operations (Knowles & Brown, p. 19).

Adults

Studies on adult developmental tasks are few (Merriam & Mullins, 1981, p. 126). For adults, motivation to learn is more internal than external (Robles, 1998, p. 11; Knowles, 1973, p. 63). Adults need to know why they should learn something before undertaking to learn it (Knowles, p. 57). Adults are life-centered, task-centered, or problem-centered in their orientation to learning, in contrast to youth who are subject-centered (at least in school) (Knowles, p. 61). Their internal motivation is a commitment to invest energy to learn because learning is perceived as of value (Robles, p. 9). Experiential, collaborative, and interactive learning are strategies used for older learners (Robles, p. 5). Adults respond best to learning situations that are "experiential, concrete, and related to their values, interests, and needs" (Robles, p. 18).

Appendix G

Letter to Superintendent/Principal

February 14, 2007

Dear Superintendent/Principal:

Greetings from Valley Forge Christian College!

Thank you for working with us on the survey of teachers from your school.

The survey is of current PreK-8 teachers from schools in the vicinity of Valley Forge Christian College. We want to gather data on teacher instructional management styles and their preferred grade levels for teaching. As you are aware, in the near future, the Pennsylvania Department of Education will be requiring pre-service teachers to select either a PreK-3 or 4-8 grade level trek for certification. Many pre-service teachers are unsure of their grade level preference early in their education program. The purpose of the study is to find out if certain teachers with similar characteristics have similar grade level preferences. The results of this survey will be used to help pre-service teachers make an informed choice based on grade level preferences of teachers with matching instructional management profiles who are already in the field.

The survey includes general information questions, 40 rating questions on management preferences, and 21 either/or questions on grade level preferences. Responding should take less than 15 minutes, but it will be critical to the success of the study. The teachers are to complete the online survey prior to March 2, 2007.

The responses will remain completely confidential. The information will be used only for statistical and data collection purposes. Any characteristics or responses will not be used or disclosed in any identifiable form. Identities will be completely protected and only used for data collection and analytic purposes.

If you have questions about the study, please email me at akmcnaughton@vfcc.edu or call me at (O) 610-917-1472. If you are interested in receiving a summary of the results, please let me know. I will be happy to send it to you.

Your cooperation is greatly appreciated.

Sincerely,

Amy K. McNaughton, Ed.S.
Professor of Education

Appendix H

Letter to Teacher

February 14, 2007

Dear Teacher:

Greetings from Valley Forge Christian College!

You are invited to be in a research study of teachers' instructional management styles and their preferred grade levels for teaching. You were selected as a possible participant because you are a current PreK-8 teacher from a school in the vicinity of Valley Forge Christian College.

This study is being conducted by Amy K. McNaughton in conjunction with Dr. Leonard W. Parker, School of Education, Liberty University.

The purpose of this study is to determine whether or not there is a relationship between teachers' instructional management styles and their grade level preferences.

The survey includes general objective information questions, 40 rating questions on management preferences, and 21 questions on grade level preferences.

The survey can only be taken once. Responding should take about 15 minutes of your time, but it will be critical to the success of the study. The survey is to be completed electronically prior to March 2, 2007. Teachers can receive individual results of their teaching style and general grade level preferences by providing an e-mail address at the end of the survey. Otherwise, the survey remains anonymous. Participation in this study is voluntary. If you agree to be in this study, please click on the following link and complete the survey:
http://www.zoomerang.com/survey.zgi?p=WEB22656UKTAQR

You may be assured that your responses will remain completely confidential. Your responses will be used only for statistical and data collection purposes. Any characteristics or responses will not be used or disclosed in any identifiable form. Research records will be stored electronically for the duration of the study, and only researchers will have access to the records.

If you have questions about the study, you are encouraged to contact Amy McNaughton or Dr. Leonard Parker at Liberty University, (434) 582-7709, lwparker@liberty.edu.

Your cooperation is greatly appreciated.

Sincerely,

Amy K. McNaughton, Ed.S.
Professor of Education

Appendix I

Automatic Generated Response

Thank you for taking the Profiles and Preferences Survey! The survey is based on Parker's FIRESIDE Instructional Management Profile. Here are your results:

Dominant Instructional Management Profile:

Dominant Grade Level Preference:

Instructional Management Profile Raw Scores:

FI

RE

SI

DE

Grade Level Preference Raw Scores:

Lower (PreK-3)

Upper (4-8)

Parker's FIRESIDE Instructional Management Profile

Parker's FIRESIDE Instructional Management Profile (2006) integrates both task (work on/work off) and relationship (hands on/hands off) components. The task refers to

the work being primarily directed by the teacher (work on) or by the student (work off). The relationship refers to motivation for the task as being external and teacher-driven (hands on) or internal and student-based (hands off). A teacher functions in each quadrant, but it is possible to classify the preferred nature of the teacher by observing the classroom activity a teacher adopts.

Parker's FIRESIDE Instructional Management Profile

Facilitator of **I**ndependence (**FI**) work on/hands off	**R**esource **E**xpert (**RE**) work off/hands off
Supportive **I**nstructor (**SI**) work off/hands on	**D**ynamic **E**ngager (**DE**) work on/hands on

Descriptions of the Four FIRESIDE Profiles

Facilitator of Independence (FI) - This instructional management quadrant is identified by work on/hands off. This style of instructional management is appropriate for students who need high amounts of guidance but little support. The teacher establishes the goal and directs the student by telling them what to do, where to do it and how to do it.

This teaching style is one that captivates students' involvement with the subject matter and structures the classroom so that communication of subjects and expectations is clear. The teacher establishes a verbal contract with the students, structures the lesson and serves as a consultant, but the students work independently. The teacher determines the method of evaluation and sets the time lines. By periodically checking the students' work, the teacher provides close supervision and accountability. The general

instructional method is the lecture, and often the desks are in rows and columns facing the teacher.

In the Facilitator of Independence quadrant, the teacher directs the work, but the motivation to do the work comes from the students' internal motivation. Although the Facilitator of Independence is defined by high task/low relationship, the teacher always has some relationship with the students. These teachers find ways to make learning personal so the students are motivated internally by personal fulfillment and accomplishment.

Students who might function well with teachers who use the Facilitator of Independence instructional management style like taking notes from clearly ordered lectures and presentations. They are logical, prefer to work with hands-on concrete materials, like structured activities and step-by-step directions, like manuals, enjoy responding to questions in a chapter of the textbook, enjoy responding to programmed learning from computers or workbooks, and prefer multiple-choice tests.

Resource Expert (RE) – This instructional management quadrant is identified by work off/hands off. This style of instructional management is appropriate for students who are able, willing and confident to take responsibility for planning and achieving their learning goals. This quadrant is marked by primarily student-directed work and high internal student motivation. The students pursue their topics of interest. The environment reflects a community of learners along with the teacher, where individual experience is valued as a resource for learning. The teacher and students agree to the definition of what the students are going to do, and the teacher gives more control of the details and methodology of goal accomplishment to the students. Although it is not necessary for the

teacher to provide direction or encouragement, it is still appropriate for the teacher to monitor the work.

As the level of student maturity rises, less teacher support is given for the task or relationship. The desks may be arranged with students in a circle where the teacher is outside of the circle and off to the side. The teacher remains accessible, and direction and support are provided on an as-needed basis. Although the Resource Expert style is defined by high task/low relationship, the teacher always has some relationship with the students. A more equal and reciprocal relationship is often used with mature learners who are suited to a self-directed learning approach. This style of instruction is extremely rare in the classroom.

Students who might function well with teachers who use the Resource Expert instructional management style like extensive reading assignments and independent thought assignments. Their writing is excellent as is their verbal decoding abilities. They are able to extract main ideas from logical presentations through lectures, audio tapes, or text. They enjoy analytic think sessions. Certain types and age levels of learners might function best in student-initiated learning environments where they have choices to pursue their own course of learning.

Supportive Instructor (SI) – This instructional management quadrant is identified by work off/hands on. This style of instructional management is appropriate for students who need two-way communication for motivation but low amounts of guidance for the task. The students are capable and actively involved in the learning but need emotional support. The students have not had the opportunity to gain confidence in their performance due to some failure that is likely to occur or has occurred. The teacher's

individualized instruction provides the students with encouragement and support to participate at all levels. For the Supportive Instructor, the purpose of education is reciprocity in the teacher/student relationship where the students are encouraged and enabled to develop as individuals.

The Supportive Instructor works with students individually or as a group. For individuals, the teacher provides extended one-on-one attention or tutoring for the student. The teacher facilitates the learning, actively listens to the students, draws out their input, compliments their work, and praises them to build their confidence. In a classroom where the Supportive Instructor works with groups of students, the students' desks might be arranged in a circle where the teacher is a member of the circle as well. The teacher participates in the group discussion as a supportive but nondirective group member. The teacher does not tell the students how to solve a task but rather asks questions that expands students' thinking.

Although no one style is effective for all objectives, the most popular instructors communicate clearly, interact with students in a caring manner, and stimulate enthusiasm about the subject. The Supportive Instructor effectively inspires students to learn.

Students who might function well with teachers who use the Supportive Instructor management style pay close attention to human behavior and thus need more personalized instruction and feedback. These students are attuned to atmosphere and mood more than those of other learning styles. They tie in the speaker's manner, delivery, and personality to the message. Because these students are more tuned in to the emotional aspects of learning, they prefer multi-sensory experiences and teaching methods that make use of movies and multi-media.

Dynamic Engager (DE) – This instructional management quadrant is identified by work on/hands on. This style of instructional management is appropriate for students who are unable to perform the task but are trying, who lack knowledge, or who may be inexperienced or temporarily confused. In this quadrant, the teacher provides a lot of direction and support. The Dynamic Engager sets the educational goals and reinforces small improvements made by the learners. The teacher actively involves and engages the whole class in the lesson. The Dynamic Engager externally motivates students by creating an atmosphere of excitement and high emotion. In addition to being knowledgeable and organized, good teachers possess qualities of enthusiasm, energy, approachability, concern, imagination, and have a good sense of humor. These teachers stimulate student interest and curiosity to engage the students on an affective level in the learning process.

The classroom atmosphere of the Dynamic Engager is marked by lively lessons and the teacher's own obvious enjoyment and involvement in the learning. The teacher uses a variety of activities (typically not paper/pencil activities) for collective engagement. The Dynamic Engager might set up the classroom by having the students sit in a circle with the teacher in the center directing the conversation. The teacher provides guidance and opportunity for dialogue where the teacher asks for student input, and clarifies or explains information.

Students who might function well with teachers who use the Dynamic Engager instructional management style prefer the teaching methods of games, simulations, individual or group projects, and short answer quizzes.

Summary of Parker's FIRESIDE Instructional Management Profile

Facilitator of **I**ndependence (**FI**) work on/hands off	**R**esource **E**xpert (**RE**) work off/hands off
• Students take notes from lectures • Students follow teacher's directions • Students listen more than talk • Students work independently on teacher-directed assignments • Students stay on task with minimal supervision • Students are motivated to do assigned work • Teacher provides concrete objects for better understanding of concepts • Teacher makes learning relevant • Teacher gives step by step directions • Teacher assigns workbook pages or questions to answer from the text • Teacher gives multiple choice tests	• Students pursue topics of interest • Students are self-directed • Students prefer to work independently • Students' experiences are resources for learning • Students are skilled at writing • Teacher has students plan goals • Teacher has students decide details and methodology of reaching goals • Teacher supports extensive independent reading assignments • Teacher encourages students' independent analyses of main ideas of text and lectures • Teacher gives support as needed
Supportive **I**nstructor (**SI**) work off/hands on	**D**ynamic **E**ngager (**DE**) work on/hands on
• Students engage in discussions • Students like relationships • Students like to talk • Students welcome praise and teacher input • Students prefer multisensory learning experiences • Teacher uses movies and other media to teach • Teacher gives personalized attention • Teacher provides one-on-one instruction • Teacher inspires students • Teacher encourages students to complete tasks	• Students need a lot of direction • Students enjoy a variety of learning activities • Students participate in class discussions • Students learn from games, simulations, and projects • Teacher engages students in whole class activities • Teacher presents exciting and enthusiastic lessons • Teacher participates in the lesson • Teacher generates active learning • Teacher rewards small improvements