THE IMPACT OF STAFF DEVELOPMENT ON TEACHERS' SUPPORT FOR MIDDLE SCHOOL PHILOSOPHY AND ANXIETY TOWARD CHANGE

By

DONALD GEORGE WENTROTH JR.

Bachelor of Science
Oklahoma State University
Stillwater, Oklahoma
1976

Master of Education
Central State University
Edmond, Oklahoma
1980

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF EDUCATION
May, 1993

OKLAHOMA STATE UNIVERSITY

THE IMPACT OF STAFF DEVELOPMENT ON TEACHERS' SUPPORT FOR MIDDLE SCHOOL PHILOSOPHY AND ANXIETY TOWARD CHANGE

Thesis Approved:

Thesis Adviser

Dean of the Graduate College

ACKNOWLEDGEMENTS

I wish to express my sincere gratitude to Dr. Gerald Bass, chairman of my committee and advisor of my dissertation. His assistance, guidance, and perspectives were greatly appreciated. I am also grateful to the other committee members, Dr. Edward Harris, Dr. Ken St. Clair, and Dr. Ted Mills, for their advisement during the course of this work. The helpfulness of each committee member and others in the department of education administration has been greatly appreciated.

Special thanks is given to my building principal, Mike Fry, for allowing me the freedom to pursue this study while working at his school; to John Savage and Kathryn Wagnon for taking up the slack at school while I was away; and to my fellow doctoral students who helped me through the tough times.

I would like to dedicate this study to my parents, Mr. and Mrs. Donald G. Wentroth. Without the patience, self-confidence, and tenacity that was taught to me by them, I would have never undertaken the task. Finally, I would like to recognize my wife, Susan, my son, Thomas, and my daughter, Katie. Their love, understanding, and confidence in me are the wind beneath my wings. Your Friend and Daddy is back!

TABLE OF CONTENTS

Chapter Page

LIST OF TABLES

CHAPTER I

INTRODUCTION

Scholars who have examined the development of the middle grades often have cited a few dominant, influential reports that greatly impacted administrative decision-making with regard to middle level education. Among these are the works of Alexander (1984), Gruhn and Douglas (1971), Lounsbury (1984), and Melton (1984). Lounsbury (1984) stated that, during the period from 1890 to 1920, an organizational struggle ensued between the roles of academics and of vocations in regard to the education of adolescents. School administrators of the 19th Century had generally wanted an 8-4 plan (eight years of elementary and four years of secondary schooling) to acknowledge the many students who dropped out after the eighth grade. On the other hand, early 20th Century policy makers viewed the 6-6 plan as more efficient, believing this would better facilitate the movement of students into the labor force at a younger age.

> Education in the United States has always presented many patterns of school organization, both between states and within states. Even as the 8-4 plan seemed to have gained full acceptance in the late 1800s as the right way to organize public education, a few areas of the young nation followed an 8-5 plan while others went with a 7-4 arrangement. Then the dominant 8-4 plan itself received a challenge from developments that followed (Lounsbury, 1984, p. 2).

In 1888, Charles W. Elliot, then President of Harvard University, led a National Education Association study that produced an agenda for middle level education. Elliot's statements to the Superintendent's Association in that year had a profound effect on subsequent school policy regarding the education of children in the middle grades (National Education Association, 1894). As chairman of the 1892 "Committee of Ten", Elliot issued an influential report calling for several subjects, (e.g., algebra, geometry, foreign languages) to begin during the last years of elementary education which, in turn, was to be reduced from eight to six years.

The Committee of Ten recommendations were soon followed by the so-called "reorganization" movement, as several national committees (including the Committee of Fifteen and the Committee on Economy of Time) stated the need for junior high schools and issued a barrage of recommendations for middle level education reform. These various committee recommendations were grouped by Alexander (1988) into four categories that sought to:

> (1) Bridge the gap between the more student-centered elementary school and the more subject-centered high school. (2) Serve the unique needs of the age group (from about 10 to 15 years of age). . . (3) Provide a broader program, with some options for students . . . (4) Solve various enrollment, facilities, and other administrative problems. . . (p. 107).

Thus the groundwork was laid for the advent of junior high schools which emerged around 1910-1920.

According to Alexander and George (1981), Koos issued his first statement of purposes for junior high schools in 1927. He implored schools to retain

students in school, economize instructional time, recognize and provide for individual differences, provide more extensive guidance, initiate vocational education, recognize the nature of adolescence, begin subject matter departmentalization, and increase students' educational and social opportunities by providing physical education (Alexander & George, 1981). The middle level school's mission was shortened by Gruhn and Douglas (1947) who developed a list of six essential functions for the junior high school: (1) integration, (2) exploration, (3) guidance, (4) differentiation, (5) socialization, and (6) articulation. The junior high school was created, then, to replace both the 6-6 and the 8-4 grade organizations with a 6-2-4 or 6-3-3 configuration (six years of elementary school, either two or three years of junior high school, and the remaining three or four years of high school).

In the early 1960s, the middle school was born. Founded on many of the same principles as the original junior high school, the middle school movement was predicated on the importance of professionalism and the need for a greater attention to the special needs of preadolescents. Many educators perceived the junior high school programs as a "failed" promise and turned to the middle school as an affirmation of a higher level of commitment. Alexander (1984) offered two very practical reasons for the establishment of middle schools:

> (1) the earlier maturation of girls and boys during the middle school years, with related, increasing concern about the traditional program's match with the needs of that age group, and (2) local problems of buildings, enrollments, desegregation, and other such matters (p. 14).

Brooks and Edwards (1978) identified at least three strong reasons for the reorganization and adoption of middle school programs: (1) to provide a program specifically for children in this age group, (2) to create a "bridge" between elementary schools and high schools, and (3) to move grade nine into the high school.

Just as many scholars, educators, and researchers (such as Melton, 1984) believed that junior high schools had failed to address adequate program reforms, a 1981 NASSP survey found that many middle schools had been established primarily to alleviate overcrowding rather than to achieve program-related revisions (Valentine, Clark, Nickerson, & Keefe, 1981). In addition, Lounsbury and Vars (1978) noted that efforts to eliminate racial segregation had spurred some districts to reorganize with middle schools. Alexander and George (1981) cited several political and administrative, rather than educational, reasons for instituting middle schools. Toepfer, Lounsbury, Arth, and Johnson (1986) acknowledged that "logistics, school population factors, and economics in the local district must be understood. Middle level school program needs must be prioritized within such parameters" (p. 6). Still, the number of middle schools replacing traditional junior high schools has progressively increased over the past 30 years (Alexander, 1968; Brooks & Edwards, 1978; Compton, 1976; Cuff, 1967; Kealy, 1971; Melton, 1984).

Gatewood (1972) and Calhoun (1983) conducted research reviews dealing with the differences between junior high schools and middle schools. While

program differences were difficult to identify, Calhoun concluded that 9th grade students' developmental/maturation stages are more like those in 10th grade while 7th graders are more like 6th graders. The growing perception has been that sixth grade students belong in a middle level school while those in ninth grade belong in a high school (National Middle School Association, 1982).

Alexander and George (1981) noted that, while "the emergence of the middle school at least in terms of grade organization and title can be readily documented, real program and curricular reform is more difficult to determine" (p. 12). Any such reform movement should necessarily be tied to the special needs of the group of children to be served. William Alexander (1968), considered by many to be the father of the middle school concept, defined the middle school as one

> providing a program planned for a range of older children, preadolescents, and early adolescents that builds upon the elementary school's program for earlier childhood and in turn is built upon by the high school's program for adolescence. Specifically, it focuses on the educational needs of what we have termed the 'in-betweenager'(p. 3).

More recently, Alexander and George (1981) defined a middle school as

> a school of some three to five years between elementary and high school focused on the educational needs of students in these in-between years and designed to promote continuous educational progress for all concerned (p. 3).

Eichhorn (1966) coined a new term, transescence, to describe the period of life associated with middle school students as

> the stage of development which begins prior to the onset of puberty and extends through the early stages of adolescence. Since puberty does not occur for all precisely at the same chronological age in human development, the transescent designation is based on the many physical, social, emotional, and intellectual changes in body chemistry that appear prior to the time when the body gains a practical degree of stabilization over these complex pubescent changes (p. 3).

In 1989, the Carnegie Task Force on Education of Young Adolescents prepared a national "wake-up call" titled Turning Points: Preparing American Youth for the 21st Century. This document was focused on an imperative need to give attention to preadolescents in a rapidly changing, highly volatile society and to design school programs to meet their needs. It called attention to the necessity to study more thoroughly the individual and societal needs of middle school youngsters and to implement and evaluate effective programs specifically designed for those students.

At the present time, the Putnam City (Oklahoma) public school district is in the beginning stages of restructuring the grade organization of the schools. More specifically, the district is beginning the transition from junior high schools to middle schools. The middle school arrangement for Putnam City will include grades six through eight.

The Putnam City school district includes a portion of three municipalities; Oklahoma City, Warr Acres, and Bethany. It covers an area of 49 square miles with 3 high schools, 4 junior high schools, and 18 elementary schools. The student population for the 1990-91 school year was approximately 18,750. The Putnam

City school district has the fourth largest student population in the State of Oklahoma.

Patrons in Putnam City have continued a tradition of community support for their school district. The passage of bond elections and millage elections are an indication that the community continues to believe that the district is doing an excellent job of educating the youth. The passage of bond elections has allowed the district to renovate and remodel many older buildings as well as to construct new schools as enrollment has increased.

The superintendent began the change process by educating the school board in regard to the philosophy and essential elements of the middle school and making comparisons to the existing junior high school system. The school board accepted the middle school philosophy, but decided to develop community support before making a commitment to move in that direction. Central office administrators then developed a series of "town meetings" in the district's schools in order to inform the community about the middle school philosophy and the manner in which it would be different from that of the junior high school structure that was already in place. At each of the meetings, time was devoted to questions and answers about the possible changes and the impact upon the district. Following these meetings, the school board determined that there was sufficient community support to proceed with the transition to middle schools.

The change was designed to be implemented over a two and one-half year period. This allowed for the construction of one new middle school building as

well as for staff development and other activities designed to provide a smooth transition from the one school program to the other. During the initial assessment process, teachers and administrators were invited to attend the public meetings in order to become more familiar with the middle school and also to ask questions. Most of the administrators attended, but very few of the teachers to be affected were in attendance.

Mauriel (1989) suggested that much of today's thinking about the change process has grown out of the work of Kurt Lewin in the 1950s. Lewin was said to have pointed out that people were most comfortable in a state of equilibrium where the status quo exists. Change disturbs that equilibrium. With any change, there comes a certain amount of anxiety. When the change involves the school setting, as with the change from the junior high school to the middle school, there comes with it an uneasiness that is multiplied by the fact that the majority of the key participants, namely the teachers, have little or no knowledge of the new setting.

Purpose of the Study

With any major change in school organizations, such as that from the traditional junior high school to the middle school, teachers and others are likely to experience a degree of anxiety. While a certain amount of anxiety may be beneficial to the change process, when anxiety becomes paramount, other issues may fail to be discussed and the anxious participants thus may become less

informed and less prepared for the change. Teachers feeling isolated from the change process may be less likely to accept or internalize the middle school philosophy and, as a result, little real change may occur from the "old" junior high school setting. However, teachers who are involved in the change process, especially those provided with quality professional development opporunities, may be more likely to find the new middle school philosophy a challenge and not a threat. Under these conditions, significant changes in the methods used to educate adolescents should occur.

The purpose of this study was to examine the extent to which teachers supported the middle school philosophy and the level of anxiety experienced by teachers who are in the process of changing from the junior high school setting to the middle school setting. The primary focus of analysis was designed to determine whether or not the level of support and/or the degree of anxiety can be impacted by staff development activities. The study consisted of two surveys, one administered prior to the major staff development activities offered to assist teachers in the transition to middle schools and the other given at the end of such activities, approximately one year after the training began.

Five research questions were developed to focus the research activities associated with the stated purpose of the study.

1. Initially, to what extent do sixth grade teachers and junior high teachers support the middle school philosophy?

2. How does this level of support change after staff development training on essential elements of the middle schools?

3. Initially, to what extent do sixth grade teachers and junior high teachers feel anxious about the change to middle schools?

4. How does this level of anxiety change after staff development training on essential elements of the middle school?

5. Is there a relationship between demographic variables such as age, experience, gender, and type of certification held and the level of support for middle school philosophy and/or the degree of anxiety experienced during the change process?

Significance of the Problem

It is expected that the popularity of middle schools will continue to increase in the United States. With this change in the arrangement of grades, there will likely come a certain amount of anxiety from all those involved: school board members, administrators, teachers, parents, and students.

By examining the impact of staff development on such change, it might be possible to avoid negative feelings by teachers during and after the change process. Any endeavor begun with negative attitudes may well be doomed to failure no matter how noble its goals appear to be. Allowing a sufficient amount of time for educating the teaching staff about middle schools may reduce the anxiety experienced to the point where they will support or accept an opportunity

to put the new principles into place and experience a change in the school environment.

Limitations of the Study

This study was subject to the following limitations:

1. This study was focused on only one school district in Oklahoma.

2. The study was limited in that the instrument designed to measure teacher anxiety and middle school knowledge has not been nationally tested for reliability and validity.

3. The study is limited in that attitudes can positively change for many reasons, not just the staff development training which served as the primary focus of this study. An increase in the amount of information provided may in fact cause teachers to become more anxious about the change process.

Definition of Terms

For the purposes of this study, terms which were important for its understanding are defined as follows:

"Anxiety is an apprehensive uneasiness of mind usually over an impending or anticipated event" (Grove, 1981).

A middle school is a school with two or more grades, sixth through eighth, with no grade below fifth or above eighth.

An eighth grade teacher is a teacher who teaches at least one class of eighth grade students during the school day.

A seventh grade teacher is a teacher who teaches at least one class of seventh grade students during the day.

A sixth grade teacher is a teacher who teaches only sixth grade students during the day.

Middle school essential elements, according to Carnegie Task Force on Education of Young Adolescents (1989), are designed to:

1) Create small communities for learning where stable, close, mutually respectful relationships with adults and peers are fundamental for intellectual and personal growth. The key elements of these communities are students and teachers grouped together as teams and small group advisories that ensure that every student is known well by at least one adult.

2) Teach a core academic program that results in students who are literate, including the sciences, and know how to think critically and assume the responsibility of citizenship.

3) Ensure success for all students through elimination of tracking by achievement level and the promotion of cooperative learning, flexibility in arranging instructional time, and adequate resources for teachers.

4) Empower teachers and administrators to make decisions about the experiences of middle grade students through creative control by teachers over the

instructional program and governance committees that assist the principal in designing and coordinating school-wide programs.

5) Staff middle grade schools with teachers who are expert at teaching young adolescents and who have been specially prepared for assignment to the middle grades.

6) Improve academic performance through fostering the health and fitness of young adolescents by providing a health coordinator in every middle grade school, access to health care and counseling services, and a health-promoting school environment.

7) Reengage families in the education of young adolescents by giving families meaningful roles in school governance and offering families opportunities to support the learning process at home and at the school.

8) Connect schools with communities which together share responsibility for each middle grade student's success, through identifying service opportunities in the community, establishing partnerships, and using community resources to enrich the instructional program and opportunities for constructive after-school activities.

A middle school philosophy is one that supports a middle grade educational program which offers a well-balanced, success- oriented curriculum focusing on what is best for all students. Through cooperation and collaboration with parents, students, teachers, and community members, the middle school creates a nurturing environment that forms the supportive link between the

elementary and high school years (Carnegie Task Force on Education of Young Adolescents, (1989).

Staff development is a systemic and continuing program in which the principals and the teachers work together to improve the school and solve emerging school problems (Parkay & Damico, 1989).

Summary

There is a growing movement to change from the traditional junior high school to the middle school philosophy in educating early adolescents. The reasons for this include the perceived need for a more effective educational response to the characteristics and needs of young adolescents during transescence, including attention to the full range of intellectual and developmental concerns. Middle school proponents believe that the young people who are going through the rapid growth and maturation period that occurs in early adolescence need an educational program that is distinctively different from that of either the elementary school or the secondary school. The purpose of this study was to examine the extent to which teachers supported the middle school philosophy and the level of anxiety experienced by teachers who are in the process of changing from the junior high school setting to the middle school setting.

CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature for this study was divided into three parts. The first area examined was the middle school philosophy and current middle school practices. The second focus included a review of some of the current practices in staff development. The third portion in this review was concerned with organizational change theory in general and educational change in particular.

Middle School Philosophy and Practices

There has been a discussion regarding the characteristics and definition of a middle school ever since its creation. Through the years, a universally accepted definition for a middle school has never emerged (Alexander, 1984). The history of schools for this age group indicates that a title or grade level designation without a particular focus does not make for an effective school. Some may prefer not to formalize a definition of middle schools because of the fear that future possibilities might be limited and the further evolution of the philosophy might be discouraged. However, many experts have assembled lists of qualities or essentials of the middle school philosophy so that direction can be given to the improvement of middle level education. Among these are Lounsbury & Vars

(1978), Alexander & George (1981), Stephens (1991), Williamson & Johnston (1991) and Kanthak (1992).

The National Middle School Association (NMSA) was established in 1974 by a group of middle school advocates to promote curricular and organizational goals. In 1977, the NMSA adopted and published five "priority goals" which demonstrated the middle school philosophy.

1. Every student should be well known as a person by at least one adult in the school who accepts responsibility for the student's guidance.

2. Every student should be helped to achieve optimum mastery of the skills of continued learning together with a commitment to their use and improvement.

3. Every student should have ample experiences designed to develop decision-making and problem-solving skills.

4. Every student should acquire a functional body of fundamental knowledge.

5. Every student should have opportunities to explore and develop interests in aesthetic, leisure, career, and other aspects of life (NMSA, 1982, p. 16).

Stephens (1991, p. 19) recommended that,

> to bring about the desired changes in our educational systems in general, and in middle level education in particular, we must be aware of and accept a shift in perspective from the traditional approach to one of educating our students for the 21st century.

She proceeded to list nine factors related to middle level education which show this difference in perspective.

1. Knowledge
   Traditional education: Accumulated pieces of information that can be identified and listed
   For the 21st century: A combination of needed skills and information that is rapidly changing and infinite in scope.
   This initial difference in views provides the base from which the following factors flow.

2. Curriculum
   Traditional education: Divided into academic and special subject areas separated by category.
   For the 21st century: Thematic and interdisciplinary units closely related to the students' real world and including complex skills and factual information.

3. Teachers
   Traditional education: Seen as subject specialists who understand and relate well to the students - usually for one period per day.
   For the 21st century: Seen as generalists who are competent in several subject areas and can teach a wide variety of students by adapting the program to the students' needs.

4. School organization
   Traditional education: Subjects compartmentalized by faculty, facility, and schedules.
   For the 21st century: Subjects integrated through interdisciplinary teaching teams and flexible time blocks.

5. Grouping for instruction
   Traditional education: Students grouped in classes according to their acquired knowledge as determined by test scores and other measures
   For the 21st century: Flexible grouping based on the needs and interests of the students and the skills to be developed.

6. Classroom activities
   Traditional education: Information is imparted to students primarily through teacher talk, textbook assignments, or audiovisual presentations; the student is a passive learner.
   For the 21st century: Information that is useful and meaningful to the student is imparted through active student participation in the classroom.

7. Student placement
   Traditional education: Standards of desired physical, social, emotional, and intellectual growth used for student placement in school levels.
   For the 21st century: Wide diversity of physical, social, emotional, and intellectual growth with the school adapting to students.

8. Requirements
   Traditional education: Specific competencies for particular grades that are sequential and have prerequisites.
   For the 21st century: Skills developed according to students' individual level of growth and readiness.

9. Student assessment
   Traditional education: Evaluation primarily through teacher-developed tests, textbook tests, or standardized tests that focus on recall of learned facts.
   For the 21st century: Evaluation through performance based activities (observations, products, and tests). (p. 19)

Williamson and Johnston (1991) reported on the Ann Arbor Public Schools change to the middle school philosophy which maintained that students at the middle level have distinct physical, social, emotional, and intellectual needs. In order to satisfy those needs, it requires the total school staff to function as a team, along with parents, students, and the community. The school board made a commitment that their middle school should reflect these assumptions:

1) Learning - a strong program that provides for the achievement of all students and recognizes that students have different styles and varied rates of learning; and varied environments that enable students to become increasingly motivated as independent and as cooperative group learners in a multi-cultural school system and in preparation for a multi-cultural society.

2) Exploration - opportunities for the individual to discover and explore new ideas and to develop skills and interests within an environment that acknowledges individual learning styles.

3) Guidance/Support - support services that promote stability, growth toward self-realization, increasing independence, and responsible behavior.

4) Identity - opportunities for students to be recognized as individuals and build self-esteem as defined by the student's perception of himself/herself and by the regard in which the student is held among other students within the learning community.

5) Physical Development - experiences and challenges designed to address the rapid changes and varied physical needs of students.

6) Socialization - experiences that develop positive problem solving and decision making skills in order for students to function as increasingly responsible members of groups and the community. (p. 61)

Kanthak (1992) enumerated the following 10 principles of successful middle schools:

1) Organization into small communities of learning.
2) Student centered culture.
3) Teachers expert at teaching young adolescents.
4) Relevant curriculum.
5) Appropriate instructional practice.
6) On-going advisement and guidance.
7) Comprehensive assessment.
8) Appropriate activities.
9) Advocates for students and families.
10) Visionary leadership (p. 1).

Current Staff Development Practices

Staff development at the middle level differs in both kind and degree from needs at both the elementary and high school levels. Both the other levels are staffed by professionals educated in pre-service programs which focus on learner and program needs at those specific school levels. This is generally not the case with middle level education. The vast majority of professionals employed by

elementary or high schools have sought that level on a first choice basis. This is also not true of middle level educators (Toepfer, 1984). Elementary and high schools are supported by a tradition of pedagogy and public understanding. Middle level education has not achieved the same levels of understanding by either educators or the general public. Middle grade staff development needs to be focused on and provided to both of those populations.

The planning of staff development programs should consider the information presented by Eichhorn (1984). The development of teaching skills must be rooted in a solid understanding of the characteristics and abilities of the early adolescent. Staff development should focus on decreasing the differences in the amount of understanding of the unique needs of middle level learners with middle school teachers. Some of these educators are very knowledgable of this age group, while others demonstrate little awareness.

Teachers assigned to middle schools will benefit from activities designed to build their understanding of young adolescents (Eichhorn, 1966). With an understanding of the uniqueness of these learners and their needs, the teachers can better identify staff development experiences which will improve the instruction in their schools.

Epstein (1989) noted that staff development for middle grade educators has become increasingly important as theory, research, practice, and policy have become more closely focused to produce information and recommendations to

specifically improve middle level education. She offered a five-point rationale for a policy regarding staff development.

1) An on-going and career-long program should be available to all personnel working with middle level students.
2) Staff development content should relate to the specific characteristics and needs of students as well as teaching conditions.
3) The structure of staff development is critical to its success.
4) Evaluation and staff development should be linked.
5) A separate certification should be required for professionals working in the middle level grades (p. 41).

It is essential that faculty participate in decision-making about all aspects of staff development in education. Noted professionals such as Toepfer (1984), Epstein (1989), Merenbloom (1988), Parkay & Damico (1989), Rodgers (1990), and Whitfield (1983) agree with this statement. Toepfer (1984, p. 132) wrote that "the success or failure of the middle level program will rise or fall on faculty enthusiasm." Involvement in staff development helps significantly in establishing faculty perceptions of the need for continual education for teaching with this age group. All too often, teachers enter the classroom after staff development and continue teaching in their "old way" and are not able to apply the skills that the activities sought to develop. This occurs most often when the activity is organized with minimal or no involvement of the faculty. Teachers need to develop ownership in the need for the development of new skills.

> The time taken to establish faculty involvement builds the key element of teacher understanding and ownership. Staff ownership in the activity is necessary because teachers are expected to implement new curricula with the skills they gain through the activity. Faculty perspective that the program is 'ours' rather than 'theirs' will greatly enhance its chances of succeeding. Teachers will then also take the

> skill development activities far more personally and seriously (Toepfer, 1984, p. 131).

According to Rodgers (1990), a staff development program had been organized and conducted by the teachers in a Pennsylvania middle school. At weekly early morning meetings, teachers came together to discuss a wide range of educational topics. Participation was voluntary in this project. The program was created to promote staff involvement. The outcome of this project was a much more positive school climate and a better understanding of middle school philosophy exhibited by the teachers who participated in the program.

Whitfield (1983) argued that providing leadership and opportunities for staff members to become more effective in their jobs was a primary responsibility of the school principal. The principal, because of the leadership expectations for that position, needs to recognize the professional abilities of the school staff and should allow staff members the opportunity to obtain the skills and information that they believe is imperative for their situations. Shimniok & Schmoker (1992) suggested that "shared leadership should increase power at every level and result in a greater efficacy for all involved -- teachers, parents, and administrators alike" (p. 29). While the students should benefit the most from such efforts, if not, then the mission of the school will not be supported by those whose support is essential--the teachers.

Successful implementation of new programs can seldom be accomplished in less than three years (Toepfer, 1979). Failure to recognize the time needed for

effective change is a critical error. More often than not, lack of sufficient time will result in little more than surface changes in program structure and will not facilitate the altering of teacher attitudes about skills needed to improve middle level education.

> The middle level school staff is less prepared for their learners than either elementary or high school teachers. For this reason, program changes and the development of teacher skills for those programs must be recognized as more difficult at the middle level. Providing adequate time for teachers to develop the skills necessary to program improvement is an important principle in planning improvement in the middle level program (Toepfer, 1984, p. 126).

Organizational Change Theory

Most often, the discussion of needed change centers around structural issues, and therein lies the problem. Fullan & Stiegelbauer (1991, p. 65) recognized that "educational change is technically simple and socially complex."

> Social structures [schools] are embedded in systems of meaning, value, belief, and knowledge, such systems comprise the culture of an organization. To change an organization's structure, therefore, one must attend not only to rules, roles, and relationships but to systems of beliefs, values and knowledge as well. Structural change requires cultural change" (Schlecty, 1990, xvi).

In other words, the problem of change is compounded by ignorance or lack of a critical attitude toward the underlying beliefs and assumptions on which the social structure is based.

> If we wish to change the overt regularities, we have as our task to become clear about the covert principles and theories: those assumptions and conceptions that are so overlearned that one no longer questions or thinks about them...if these underlying

> assumptions are not questioned, then overt changes in practice are unlikely. It would be so simple if one could legislate changes in thinking (Sarason, 1992, p. 232).

The examination of change requires an understanding and consideration of two different arenas (Fullan & Stiegelbauer, 1991). The first arena involves the values, goals, and consequences of a specific educational change, while the second arena calls for the comprehension of the dynamics between the individual, the classroom, the school, and local, state, and national agencies. These arenas are constantly interacting and reshaping each other. In order for meaningful change to occur, there must be an interface between individual meaning and collective meaning; there must be shared meaning.

> Real change, whether desired or not, represents a serious personal and collective experience characterized by ambivalence and uncertainty; and if the change works out it can result in a sense of mastery, accomplishment, and professional growth. The anxieties of uncertainty and the joys of mastery are central to the subjective meaning of educational change, and to success or failure -- facts that have not been recognized or appreciated in most attempts at reform (Fullan & Stiegelbauer, 1991, p. 32).

Educational change is multidimensional; it can not be considered as a single object and responses to it can vary among individuals and within groups. There are three necessary components for the successful achievement of a specific educational change: (1) the possible use of new or revised materials, (2) the possible use of new teaching approaches, and (3) the possible alteration of beliefs. The problem is to develop meaning in relation to all three components (Fullan & Stiegelbauer, 1991). The traditional approach to change in the educational setting

has been to present new materials or to provide limited in-service regarding such issues as new teaching approaches but to ignore the alteration of the belief system. Therefore, it would appear that many innovations have been adopted only on the surface which, in practice, never became a reality.

Due to the many variables involved in change, the success or failure of a specific educational change cannot be predicted. Change requires a commitment of energy, time, and resources, and it creates an unstable world. There is often an air of discomfort and uncertainty because change creates needs as well as satisfies them. Major change takes time, often as much as 5 to 10 years. Failure to take time in the beginning usually results in the need for time for corrective action in the middle of the process and may lead to eventual abandonment of the idea (Schlecty, 1990).

Resistance to change is one of the anticipated dynamics of the process (Margolis, 1991). However, resistance need not always be viewed as a negative, but rather can provide a vehicle for desired outcomes. Resistance should not be viewed as a rejection related to the quality of the proposed change; neither is resistance to change the response of uncaring people. "By forcing proponents of change to test and improve their ideas and provide enough specificity to adequately implement their ideas, resistance to apparently worthwhile and creative ideas can benefit teachers and students" (Margolis, 1991, p.2).

Fullan and Stieglebauer

The conceptual model of change developed by Fullan and Stiegelbauer (1991) was selected along with Argyris and Schon's theory of action (1978) as the bases for interpretation:

> There can be no recipe for change, because unlike ingredients for a cake, people are not standard to begin with, and the damned thing is that they change as you work with them in response to their experiences and their perceptions . . . The administrator who tries to deal with innovations one at a time will soon despair or be victimized. The one who works over a five or six year period to develop the district's and school's core capacity to process the demands of change, whether they arise internally or externally to the district, may find change easier as time goes by (Fullan & Stiegelbauer, 1991, p. 214).

This theoretical view of change through individuals as opposed to change as a step-by-step procedure is the basis for the appeal of Fullan and Stiegelbauer's model.

A simplified overview of the change process includes: Phase 1, Initiation, consisting of the process that leads up to and includes a decision to adopt; Phase 2, Implementation, which includes the first attempt to put a reform into practice and extends from the initial year of use through the second or third year of use; and Phase 3, Continuation, which refers to whether the change becomes an ongoing part of the system. Numerous factors operate at each phase. This is not solely a linear process, but allows events at one phase to provide feedback to alter previous decisions. This results in a model that is continuously interactive. The time involved from initiation to institutionalization is lengthy. Moderately

complex changes may take from 3 to 5 years, while major restructuring efforts may require from 5 to 10 years.

The environment that best fosters a successful initiation process will attend to the three components of relevance, readiness, and resources. Relevance includes the interaction of need, clarity of the innovation, and utility, or what the change has to offer to students and to teachers. Readiness must be approached on both the individual and institutional levels and involves the school's practical and theoretical ability to initiate, develop, or adopt a given innovation. The concept of resources concerns the accumulation and continuance of support as a part of the change process. The process of initiation can create meaning or confusion, commitment or resistance. Implementation occurs as people begin to put into practice the idea, program, or set of activities that constitutes the expected change. The change may be externally imposed or willingly desired and may be prescribed in detail or open-ended. The major contributing factor to the failure of proposed educational change is ignorance of the fact that what people do and do not do, regardless of the plans on paper, is the crucial variable.

Continuation refers to whether an innovation becomes embedded in the system to the point of becoming institutionalized. In large part, lack of continuation results from a lack of interest, support, or funding. Continuation is dependent upon whether or not the change is built into policy and the budget, and whether or not a group of administrators and teachers has become committed to the underlying beliefs and adept in the skills associated with the change.

Argyris and Schon

Organizational learning, a term developed by Argyris and Schon (1978), is closely related to organizational development. The concept of organizational learning does not depend on rationalistic models of change but views change as a learning process. Argyris and Schon began by asserting that there is a basic difference between what people say and what they do, and that they are generally unaware of the difference. They labeled what people say as the "espoused theory-of-action." That is, the manner in which people cognitively interpret their behavior to themselves and to others. How they actually act was labeled as "theory-in-use", that is, the actual behavior as it is observed by others. As a result, an individual might say and truly believe that he or she acts primarily for the good of others, but nevertheless continue to act in a manner interpreted as self-serving by others. This failure to link thought and deed leads to a variety of errors.

Error correction in this model generally occurs in two ways that both use feedback loops. Argyris (1982) thus distinguished between single and double feedback loops.

> A single loop identifies an error and then loops back to correct it, in somewhat the same way as one might relight a candle that went out in the middle of dinner. A double loop corrects the immediate error but then loops back again to correct the source of the error: one not only relights the candle but also rises to close the window (p. 75).

The possibilities of single- or double-loop learning suggests that two models of action are possible. Model I behavior represents actions that are single loop in nature; errors are identified and corrected, but the basic source of those errors, what Argyris and Schon (1978) called governing variables, remained untouched. These governing variables can be considered to be social norms that direct our behavior, such as the need to be rational, to be competitive, to be unemotional, or to not express negative feelings. These norms are primarily inhibitory loops that prevent double-loop learning from occurring. These basic norms are reinforced by secondary inhibitory loops, those occasional situations in which group dynamics reinforce the individual conclusions about social norms. When this Model I behavior is lifted to the organizational level, it becomes, according to Argyris and Schon (1978), Model O-I and reflects the essentials just mentioned.

Model II is the model of action that reflects double-loop learning. Here, the governing variables themselves are exposed and examined to result in what Argyris (1982) labeled "discussing the undiscussable" (p. 52). Not only are the errors open to inspection, but the underlying norms that promote such errors are also available for consideration. Inconsistencies that develop through the inherent conflict between what people think they do and what others see them as doing are opened up and surfaced for analysis. Argyris found that most people aspire to Model II behavior. They believe that there should be trust in organizations, that communication should be open, that feelings and thoughts should be freely expressed and that sacrifice has a place in human affairs. However, most people

also have enormous difficulty in incorporating Model II behavior into their own behavior, and they fail to recognize that they have this difficulty.

Argyris and Schon (1978) saw an organization as a "solution to a problem" (p. 61), possessing a strategy for performing a complex task which could have been carried out in other ways. Organizational theories-of-action need not be explicit. In fact, formal documents such as organizational charts, policy statements, and job descriptions often reflect a theory-of-action (the espoused theory) which conflicts with the organization's theory-in-use (the theory of action of actual behavior). The theory-in-use is often tacit. Whatever the reason, the largely tacit theory-in-use accounts for organizational identity.

The members of an organization strive continually to complete their theory-in-use and to understand their roles in the context of the organization. As conditions change in the organization, the members test and modify themselves and their performances as they interact with others who are similarly engaged in continuing inquiry. They call this type of organizing, reflexive inquiry.

Argyris and Schon defined and described the functions of "organizational maps".

> These maps are the shared descriptions of the organization which individuals jointly construct and use to guide their own inquiry. They describe actual patterns of activity and they are guides to future action (Argyris and Schon, 1978).

Each member of the organization has their own organizational map. If the organization is to be effective, the members' maps must be similar to the organization's goals.

Individual members of an organization frequently serve as agents of change through refinement of a theory-in-use which runs counter to the organization's theory of action (espoused theory). They act on their images and on their shared maps with expectations of outcomes, which their subsequent experiences may or may not confirm. When there is a mismatch of outcome to expectation, members may respond by modifying their images, maps, and activities in order to bring the expectations and outcomes back into line. They thus detect an error in the organizational theory-in-use, and they attempt to correct it.

Just as individuals are the agents of organizational action, so are they the agents for organizational learning which occurs when individuals detect a match or a mismatch of outcome to expectation. The learning agents must first discover the sources of error. That is, they must attribute error to strategies and assumptions in existing theories-in-use. They must then invent new strategies, based on new assumptions, in order to correct the error. Error correction is another way of describing a complex learning cycle.

In order for organizational learning to occur, the learning agent's discoveries, inventions, and evaluations must be embedded in organizational memory. They must be encoded in the individual images and the shared maps of organizational theory-in-use from which individual members will eventually act. If

this encoding does not occur, individuals will have learned, but the organization will not have done so. While there is no organizational learning without individual learning, individual learning is a necessary but insufficient condition for organizational learning.

Summary

The philosophy of middle schools is unique and different from that of the traditional junior high schools. Middle schools are characterized by a broad focus that includes the meaningful involvement of parents and the community. The health and social needs of this age group are recognized through the curriculum. Teachers are empowered and responsible for outcomes, including curriculum and program development. Middle schools strive for the success of all students by eliminating tracking, promoting cooperative learning, and providing flexible scheduling. A core academic program is taught that integrates disciplines and encourages students to think critically. Middle schools are organized into small communities in order for students to be well known by their teachers and other students.

Current staff development practices for middle schools should be designed and implemented by middle school teachers. Staff development should focus on decreasing the differences in the amount of understanding of the unique needs of these students. Faculty enthusiasm about the staff development program will, in

large part, determine its success. Teachers thus need to develop ownership in the need for the development of new skills.

According to Fullan & Stiegelbauer, the success or failure of a specific change cannot be predicted. Change requires a commitment of energy, time, and resources. It creates an unstable world. Change creates needs as well as satisfies them. Fullan believed that change through individuals, rather than by a step-by-step approach, is essential.

According to Argyris and Schon, as teachers find, through staff development activities, that the middle school philosophy better meets the needs of the students they teach, then the level of anxiety over the change process should decrease. Argyris and Schon believed that an organization changes as an organization learns. Members of the organization test and modify their roles and behaviors as they interact with others. Organizational change and learning occurs when individuals detect a match or a mismatch of outcomes to expectations.

CHAPTER III

RESEARCH DESIGN

The purpose of this study was to examine the extent to which teachers supported the middle school philosophy and the level of anxiety experienced by teachers who are in the process of changing from the junior high setting to the middle school setting. The primary focus of analysis was designed to determine whether or not the level of support and/or the degree of of anxiety can be changed by staff development training. The information collected from two surveys was analyzed to determine if a relationship exists between the level of teacher knowledge about middle school practices and their anxiety level concerning the change in the school's philosophy and whether staff development activities affect such relationship.

Five research questions were developed to provide a focus for the collection of data necessary to accomplish the stated purpose of the study.

1. Initially, to what extent do sixth grade teachers and junior high teachers support the middle school philosophy?

2. How does this level of support change after staff development training on essential elements of the middle school?

3. Initially, to what extent do sixth grade teachers and junior high teachers feel anxious about the change to middle schools?

4. How does this level of anxiety change after staff development training on essential elements of the middle school?

5. Is there a relationship between demographic variables such as age, experience, gender, and type of certification held and the level of support for middle school philosophy and/or the degree of anxiety experienced during the change process?

In order to find answers to these research questions, data were collected from 219 sixth, seventh, and eighth grade teachers in the Putnam City school district. This chapter includes a description of the population, the instrumentation, and the collection and analysis of the data.

Population

The entire population of 219 sixth, seventh, and eighth grade teachers in the Putnam City school district was surveyed. Since some junior high school teachers may teach in several different grade levels during a school day, only those who taught at least one class of seventh or eighth grade students were included.

This population of teachers was surveyed twice during the period of time in which the study was conducted. At the time of the second survey, only the 186 teachers who had been through the staff development training which took place during the previous year were given the instrument.

In this study, a control group of teachers was not used. Because of the situation within the district, all teachers received the staff development activities on middle schools.

Treatment

The staff development activities occurred during the 1991-92 school year. Attendance at these activities was required for all sixth, seventh and eighth grade teachers in the school district. There were different topics presented in September, October, November, January, February, March and April. On each Wednesday of the month, the topic was presented at each of the junior high schools after school from 3:30 to 4:30. On the third Monday of each month, the same presentation was made to the parents and interested community members at the central office building.

The theme of the topics presented during the first year of staff development was to provide information and to develop an awareness of middle schools. The first topic presented was concerned with what Putnam City wanted in middle schools. It was presented by the staff development committee of Putnam City. In this presentation, the three year staff development plan was described to the teachers as well as the reasons for making the move to the middle school concept.

In October, the topic for presentation was the characteristics of an exemplary middle school. A local college professor, who specializes in teaching

about middle schools, was the presenter. The November topic was to describe the developmental characteristics of the middle school student. This included a description of the physical, social, emotional and intellectual characteristics of the adolescent. Local, private counselors were the presenters for this month's topic.

In January, the presentation was centered on the characteristics of the exemplary middle school teacher. A group of teachers who are teaching on a seventh grade team in another neighboring school district were the presenters for January. The February topic was the characteristics of the exemplary middle school principal. A practicing middle school principal from another school district was the presenter in February.

In March, the presentation was centered around the balanced middle school curriculum which is based on the needs of the student. The district's curriculum committee presented the March sessions. The final month's topic was an overview of the characteristics of a middle school followed by a needs assessment taken from the teachers. This needs assessment was used to develop the second year of staff development for the school district.

Instrumentation

For this study, data were collected through the use of a questionnaire. The survey instrument, designed by the researcher, contained questions that were pertinent to teacher demographics, knowledge about middle school philosophy,

and teachers' levels of anxiety regarding the change from junior high to middle schools.

After the questionnaire had been drafted, it was reviewed by the doctoral committee and by professional educators involved with the change process in the Putnam City school district. After the instrument had been revised, it was pilot tested with 10 teachers who were not a part of the sample. They were asked to complete the questionnaire and to provide suggestions regarding the validity of the questions. The instrument was revised again to incorporate their suggestions. Questions 17 and 18 were omitted in determining an anxiety level score. The revised instrument was not assessed for reliability and validity.

The survey instrument consisted of 23 questions (see Appendix A). The first section contained demographic questions regarding gender, age, years of teaching experience, type of certification held, and previous middle school experience. The second section of the survey was focused on knowledge of essential elements of the middle school philosophy. Included in this section was an item for which the teachers were asked to describe their own concepts of the middle school. In the third section of the questionnaire, the teachers were asked to describe how comfortable they were with the change process from the junior high to the middle school.

There was some concern during the initial reviews of the instrument in regard to the Likert scales used in questions 7 through 22. The data on the five-point scale were intended to be used as a continuous variable. After

interviewing 20 teachers who had completed the survey, it was determined that each of them had considered the "undecided" response to mean "somewhat agree and somewhat disagree." As a result, the responses were considered to be continuous in nature.

Collection of Data

As noted above, the population of sixth, seventh, and eighth grade teachers included only teachers in the Putnam City school district. The questionnaire was distributed to all members of that population through the inter-school mail on September 3, 1991 (see Appendix A). This date was chosen so that the teachers would have been exposed to a minimum of staff development activity concerning the middle school philosophy. This initial survey thus provided a baseline from which to compare any change which might have occurred during the period of future staff development.

Attached to the two-page questionnaire was a cover letter (see Appendix B) used to explain that the teachers had been selected to participate in a study concerning their knowledge and perceptions of middle schools. Specific instructions were provided for the completion and prompt return of the instrument. Subjects were assured that their responses would be kept confidential. The first page of the survey was to be removed and signed by the teachers. This page was returned to the researcher so that a record could be maintained concerning who had completed the instrument. The instrument was returned

separately so that the teachers could be guaranteed a confidential response to the questionnaire. On September 23, 1991, a duplicate questionnaire was mailed to teachers who had failed to respond. Attached to the duplicate questionnaire was a short letter asking again for their participation in the study (see Appendix C). On May 23, 1992, a second survey was distributed. The survey was identical to the first instrument, except for a different cover letter (see Appendix D) which was attached to explain the purpose of the second survey. As noted before, the second survey was distributed only to teachers who had been through the staff development training the previous year.

Data Analysis

The data analysis involved the use of descriptive statistics, t-tests, correlated t-tests, and factorial ANOVA. Descriptive statistics were applied to the data concerning demographic information. The t-tests were used to compare the elementary (sixth grade) teachers to the junior high (seventh and eighth grade) teachers for each of the questions on the survey instrument. Correlated t-tests were used to compare pre-inservice scores to post-inservice scores on middle school philosophy and the degree of anxiety experienced by the teachers. Tukey tests were used to determine if there was a significant difference between the different groups being compared. In order to determine a middle school philosophy score for the teachers taking the survey, responses to questions 7 through 15 were totaled in both the pretest and the posttest. In order to

determine an anxiety level score for the teachers taking the survey, responses to questions 16, 19, 20, 21, and 22 were totaled in both the pretest and the posttest. Questions 17 and 18 were not used in the determination of the anxiety level score. The researcher felt that these two questions had no bearing on increasing or decreasing the anxiety level of the teachers. Factorial ANOVAs were run for demographic data and their interactions for pretest and posttest middle school philosophy and anxiety scores.

Summary

The steps involved in the study included the identification of the population, the construction and pilot testing of the survey instrument, the collection of data, and the analysis of the data. Descriptive statistics, t-tests, correlated t-tests, and factorial ANOVAs were utilized in the analysis.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The purpose of this chapter is to provide a description and an analysis of the data collected from the pretest and the posttest questionnaires. The survey instrument was designed to measure the level of knowledge regarding middle school philosophy that the teachers possessed before their involvement in related staff development activity and the level after one year of such training. Likewise, the instrument was also designed to measure the level of anxiety associated with the change process before and after the first year of staff development activities. Demographic data were also collected from the survey. The presentation and analysis of the data are organized by the five research questions proposed in Chapter I.

Demographic Data

The respondents to the questionnaire were all sixth, seventh, and eighth grade teachers in the Putnam City school district. Of the 224 teachers in the population, 186 responded to both the pretest and the posttest. An 83% response rate was thus established. Data regarding the teachers' gender, years of experience, age, grade level of teaching assignment, previous middle school

experience, and type of certification were collected for the study. These data are summarized in Table I.

TABLE I

SUMMARY OF DEMOGRAPHIC DATA FOR RESPONDENTS

		Respondents	
Variable	Description	No.	%
Gender	Male	41	22%
	Female	145	78%
Years of Experience	0-12	76	41%
	13-24	93	50%
	25-36	17	9%
Age	21-35	56	30%
	36-50	100	54%
	51-65	30	16%
Grade Presently Teaching	Sixth	50	27%
	Seventh or Eighth	136	73%
Middle School Experience	Yes	39	21%
	No	147	79%
Certification	Elementary	73	39%
	Secondary	82	44%
	K - 12	31	17%

The respondents consisted of 27% elementary (sixth grade) teachers and 73% junior high (seventh and eighth grade) teachers. While 10% of the respondent elementary teachers were male, 26% of the respondent junior high teachers were male. Most teachers were between 36 and 50 and one-half had 13-24 years of experience. Another characteristic of the population was that less than one-fourth of the respondents had previous middle school experience. In Table II, the gender of the respondents is compared to the grade level being taught. It was found that 10% of elementary respondents were male, while males accounted for approximately one-fourth of the junior high school teachers who responded. In Table III, the teachers' age group is compared to the grade level being taught by the teacher. Elementary teachers were slightly more experienced, with twice or larger percentage in the highest group. In Table IV, the type of certification held by the teacher is compared to the grade level being taught by the teacher. None of the elementary teachers had secondary or K-12 certification, while 40% of the junior high teachers had either elementary of K-12 certification.

TABLE II

GENDER COMPARED TO GRADE LEVEL BEING TAUGHT

	Sixth Grade Teachers		Jr. High Teachers	
Gender	No.	Percentage	No.	Percentage
Male	5	10%	35	26%
Female	45	90%	101	74%
TOTALS	50	100%	136	100%

TABLE III

TEACHERS' EXPERIENCE COMPARED TO LEVEL BEING TAUGHT

	Sixth Grade Teachers		Jr. High Teachers	
Years of Experience	No.	Percentage	No.	Percentage
0 - 12	20	40%	56	41%
13 - 24	22	44%	70	52%
25 - 36	8	16%	10	7%
TOTALS	50	100%	136	100%

TABLE IV

TEACHER CERTIFICATION COMPARED TO LEVEL BEING TAUGHT

	Sixth Grade Teachers		Jr. High Teachers	
Certification	No.	Percentage	No.	Percentage
Elementary	50	100%	26	19%
Secondary			78	57%
K - 12	—	—	32	24%
TOTALS	50	100%	136	100%

Middle School Philosophy Before Staff Development

Research question one was focused on the degree to which sixth grade teachers and junior high teachers supported a middle school philosophy before the related staff development activities had begun. The mean scores and level of significance for each difference between the two teacher groups for the relevant questionnaire items are listed in Table V. These scores were determined from a Likert-type scale which was scaled from one to five. A score of one indicates a teacher who strongly disagrees with that element of the middle school philosophy as compared with a score of five which indicates a teacher who strongly agrees. A total middle school philosophy mean score for each group is also listed along with its level of significant difference.

TABLE V

INITIAL SURVEY: MEAN SCORES FOR ELEMENTARY AND JUNIOR HIGH TEACHERS ON MIDDLE SCHOOL PHILOSOPHY

Survey Question	Elementary	Jr. High	Level of Significance
7	4.38	3.97	0.002
8	4.14	3.54	0.000
9	3.70	3.36	0.009
10	4.06	3.92	0.161
11	3.98	3.18	0.000
12	4.42	4.27	0.063
13	4.60	4.18	0.004
14	4.48	4.54	0.146
15	3.86	3.96	0.122
Total Philosophy Score	33.92	31.57	0.001

Question 7 was concerned with whether interdisciplinary teaming is an important component in middle schools. The mean score for the sixth grade teachers was 4.38 while the mean score for the junior high teachers was 3.97. The standard deviation for the sixth grade teachers was 0.73 as compared with 0.81 for the junior high teachers. The scores for the sixth grade teachers were more tightly grouped around the mean. As a result there was less variance in their scores. There was a significant difference in the mean scores for the two groups of

teachers. The sixth grade teachers believed that interdisciplinary teaming was more important to the middle school concept than did the junior high teachers.

Question 8 was concerned with the need for the advisor-advisee relationship in the middle school. The mean score for the sixth grade teachers was 4.14 while the mean score for the junior high teachers was 3.54. The standard deviation for the sixth grade teachers was 0.78 as compared with 0.87 for the junior high teachers. The scores for the sixth grade teachers were more tightly grouped around the mean. As a result, there was less variance in their scores. There was a significant difference in the mean scores for the two groups of teachers. The sixth grade teachers believed that the advisor-advisee program was more important to the middle school philosophy than did junior high teachers.

The issue of the importance of structuring schools so that they are arranged to have a school within a school is dealt with in question 9. The mean score for the sixth grade teachers was 3.70 while the mean score for the junior high teachers was 3.36. The standard deviation for the sixth grade teachers was 0.91 as compared with 0.73 for the junior high teachers. The scores for the junior high teachers were more tightly grouped around the mean, as a result, there was less variance in their scores. Sixth grade teachers believed that middle schools should be arranged so they have a school within a school more so than junior high teachers.

The importance of intramurals in the middle school is addressed in question 10. The mean score for the sixth grade teachers was 4.06 while the mean

score for the junior high teachers was 3.92. The standard deviation for the sixth grade teachers was 0.96 as compared with 0.84 for the junior high teachers. Junior high teachers' scores were more tightly grouped around the mean, as a result, there was less variance in their scores. There was not a significant difference in the mean scores for the two groups of teachers on this item. Both groups appear to agree with the component of intramurals being an important factor in middle schools.

Question 11 was concerned with middle schools having a more positive climate than junior high schools. The mean score for the sixth grade teachers was 3.98 while the mean score for the junior high teachers was 3.18. The standard deviation for the sixth grade teachers was 1.08 as compared with 1.15 for the junior high teachers. The scores for the sixth grade teachers were more tightly grouped around the mean than were those of the junior high teachers, but there was more variance in this question than in any of the other questions on the questionnaire. Sixth grade teachers believed that a middle school would possess a more positive climate than a junior high school.

Teachers were able to respond to how important the transmission of common knowledge to all of the students in question 12. The mean score for the sixth grade teachers was 4.42 while the mean score for the junior high teachers was 4.27. The standard deviation for the sixth grade teachers was 0.81 as compared with 0.77 for the junior high teachers. The scores were more tightly grouped around the mean for the junior high teachers, as a result, there was less

variance in their scores. There was not a significant difference in the mean scores for the two groups on this item. Both groups of teachers agreed that middle schools should transmit a core of common knowledge to their students.

The issue of all students being able to succeed in the middle school as opposed to the junior high school is addressed in question 13. The mean score for the sixth grade teachers was 4.60 while the mean score for the junior high teachers was 4.18. The standard deviation for the sixth grade teachers was 0.57 as compared to 0.98 for the junior high teachers. The scores for the sixth grade teachers were much more tightly grouped around the mean, as a result, there was less variance in their scores. There was a significant difference in the mean scores for the two groups of teachers. The sixth grade teachers strongly agreed that middle schools could be organized to ensure the success for all students.

In question 14, the teachers' perception of whether schools and communities should be partners in the education of young adolescents is measured. The mean score for the sixth grade teachers was 4.48 while the mean score for the junior high teachers was 4.54. The standard deviation for the sixth grade teachers was 0.61 as compared with 0.63 for the junior high teachers. The distribution of scores for both groups were almost equal. There was not a significant difference in the mean scores for the two groups. Both groups apparently believe that schools and their communities should be partners in the education of young adolescents.

The area of the exploratory elective program for young adolescents is learners is explored in question 15. The mean score for sixth grade teachers was 3.86 as compared to 3.96 for the junior high teachers. The standard deviation for the sixth grade teachers was 0.81 as compared with 0.93 for the junior high teachers. The scores for the sixth grade teachers were more tightly grouped, as a result, there was less variance in their scores. There was not a significant difference in the two groups' mean scores. Both groups somewhat agreed with the idea that young adolescents should be exposed to an exploratory elective program.

The total middle school philosophy score reflected an overall perspective of the middle school philosophy as represented by those items identified above. There was a significant difference in the mean scores for the two groups of teachers. Initially, the sixth grade teachers' responses were more favorable to the middle school philosophy than were those of the junior high teachers.

Junior high teachers scored the lowest on the component that describes middle schools as having a more positive climate than junior high schools. They also had less positive scores on the idea of arranging the middle school so that there would be a school within a school. Junior high teachers scored lower on the item concerning the necessity of the advisor- advisee relationship.

Sixth grade teachers provided more support for the concept that middle schools be organized to ensure the success for all students. They also were more likely to agree with the concept concerning schools and communities working together in the educational process of the students. Sixth grade teachers indicated

that it was important to transmit a common core of knowledge to the students in the middle schools.

Sixth grade teachers demonstrated less support for the component concerning the arrangement of the middle school so that there would be a school within a school. They also somewhat agreed with the idea that young adolescents needed an exploratory elective program.

Middle School Philosophy After Staff Development

The second research question was used to identify the level of teacher support for the middle school philosophy after staff development training. The pretest and posttest mean scores, the amount of change in the means, and the level of significance are provided in Table VI. These scores were determined by using a correlated t-test which compared the pretest to the posttest for each of the survey items making up the middle school components.

A similar set of findings for responses of junior high teachers is provided in Table VII. Again, correlated t-tests were performed on pretest and posttest scores in order to determine the significant difference of the change.

TABLE VI

FOLLOW-UP SURVEY ON MIDDLE SCHOOL PHILOSOPHY
FOR SIXTH GRADE TEACHERS

Survey Question	Pretest Mean	Posttest Mean	Difference	Level of Significance
7	4.38	4.71	0.33	0.001
8	4.14	4.50	0.36	0.001
9	3.70	4.17	0.47	0.001
10	4.06	4.35	0.29	0.004
11	3.98	4.48	0.50	0.001
12	4.42	4.58	0.16	0.005
13	4.60	4.60	0.00	0.368
14	4.48	4.54	0.06	0.165
15	3.86	4.44	0.58	0.003
Totals	33.92	36.19	2.27	0.001

TABLE VII

FOLLOW-UP SURVEY ON MIDDLE SCHOOL PHILOSOPHY FOR JUNIOR HIGH TEACHERS

Survey Question	Pretest Mean	Posttest Mean	Difference	Level of Significance
7	3.97	4.45	0.48	0.001
8	3.54	3.93	0.39	0.001
9	3.36	3.87	0.51	0.001
10	3.92	4.16	0.24	0.004
11	3.18	3.60	0.42	0.001
12	4.27	4.49	0.22	0.001
13	4.18	4.13	-0.05	0.368
14	4.54	4.60	0.06	0.165
15	3.96	4.13	0.17	0.003
Totals	31.57	33.49	1.92	0.001

Junior high teachers exhibited a greater degree of change in question 7 dealing with the need for interdisciplinary teaming in middle schools. Both the sixth grade and the junior high teachers became more aligned with the middle school philosophy in this area following staff development. There was a significant difference in the mean scores for the pretest and the posttest.

The junior high teachers exhibited a greater degree of change with respect to question 8 concerning the importance of the advisor-advisee relationship in middle schools. Both groups of teachers became more aligned with the middle

school philosophy in this area after staff development training. There was a significant difference in the mean scores for the pretest and the posttest.

The junior high teachers exhibited a greater degree of change with respect to question 9 concerning the need to arrange middle schools so that there are schools within the school. Both groups of teachers became more aligned with the middle school philosophy in this area after staff development training. There was a significant difference in the mean scores for the pretest and the posttest.

The sixth grade teachers exhibited a greater degree of change with respect to question 10 concerning student participation in intramurals in middle schools. Both groups of teachers became more aligned with the middle school philosophy in this area after staff development training. There was a significant difference in the pretest and the posttest scores for both of the groups of teachers.

The sixth grade teachers exhibited a greater degree of change with respect to question 11 concerning middle schools having a more positive climate than junior high schools. Both groups of teachers made significant changes in this area after staff development training. This would align them more with the middle school philosophy.

The junior high teachers exhibited a greater degree of change with respect to question 12 concerning middle schools being able to transmit a common core of knowledge to their students. Both groups of teachers made significant changes in this area after staff development training. This would align them more with the middle school philosophy.

Neither group of teachers exhibited any change with respect to question 13 which concerned the ability of middle schools to ensure the success of all students. In fact, junior high teachers felt after the staff development training that middle schools could do less to ensure this than they did before the training. The sixth grade teachers felt the same about this aspect as they did before the staff development training.

Both groups of teachers exhibited a slight change in their scores with respect to question 14 concerning the involvement of the community in the education process of early adolescents. The mean scores for both groups were very high to begin with, and as a result, there was little room to improve. Both groups of teachers believe that this is an important area for middle schools to be concerned with, which aligns them with middle school philosophy.

Sixth grade teachers exhibited a great degree of change in their perceptions regarding question 15 which concerns the need for an exploratory elective program for early adolescents. Both groups of teachers made significant improvements in the pretest and the posttest scores in this area after staff development training. This would align them more to the middle school philosophy.

Overall, the sixth grade teachers made the most change in the total middle school philosophy scores. The junior high teachers made a significant change in their overall score, however it was not as great a difference as the sixth grade group.

Anxiety Level Before Staff Development

Research question three was focused on the degree to which sixth grade teachers and junior high teachers reported anxiety about the change to middle schools. The mean scores and the level of significance of differences for the questionnaire items that concerned anxiety are listed in Table VIII. These scores were also determined from a Likert scale which had a range from one to five. A score of one indicates that the teacher is very comfortable with the item. A score of five indicates that the teacher is very uncomfortable with the item. A total anxiety score for each group is listed along with its mean and significant difference.

Question 16 was concerned with whether the teacher was looking forward to the challenge of teaching in a middle school. The sixth grade teachers' mean score was 4.12. The junior high teachers' mean score was 3.55. These scores were taken from a Likert scale where a score of 5 indicated very comfortable and a score of 1 indicated very uncomfortable. When these scores were converted to scores with a scale where a score of 1 indicated very comfortable and a score of 5 indicated very uncomfortable, the sixth grade teachers' mean was 1.98 and the junior high teachers' score was 2.45. This conversion was done so that all scores in the anxiety component were scored consistently.

TABLE VIII

INITIAL SURVEY ON TEACHER ANXIETY

Survey Question	6th Grade Mean	Jr. High Mean	Difference	Level of Significance
16	1.98	2.45	0.47	0.002
19	2.18	2.71	0.53	0.007
20	2.70	3.05	0.35	0.047
21	2.02	2.68	0.66	0.001
22	2.10	2.36	0.26	0.110
Total Anxiety Score	13.12	14.36	2.24	0.027

Question 19 was concerned with whether the two groups of teachers were comfortable with the change from junior high schools to middle schools. The sixth grade teachers' mean score was 2.18, which indicates that they were somewhat comfortable with the change process. The junior high teachers' mean score was 2.71, which indicates that they exhibited, as a group, somewhat neutral perspectives of the change process. There was a significant difference in the scores between the two groups. Again, the sixth grade teachers were less anxious about the change process than the junior high teachers.

Question 20 was concerned with how comfortable the teachers were with their knowledge about middle schools and how middle schools were different from junior high schools. The sixth grade teachers' mean score was 2.70, which

indicates that they were neutral about their feelings about their middle school knowledge. The junior high teachers' mean score was 3.05, which indicates that they were somewhat uncomfortable with their knowledge about middle schools. There was a significant difference in the scores for the two groups, with the sixth grade teachers having the most confidence in their middle school knowledge.

Question 21 was concerned with how comfortable the teachers were with the middle school philosophy. The sixth grade teachers' mean score was 2.02, which indicates that they as a group were somewhat comfortable with the middle school philosophy. The junior high teachers' mean score was 2.68, which indicates that they have no feeling one way or the other about the middle school philosophy. There was a very significant difference in the scores between the two groups, with the sixth grade teachers having a similar philosophical framework as the middle school philosophy.

Question 22 was concerned with how comfortable the teachers were with working with teachers with another type of certification. The sixth grade teachers had a mean score of 2.10, which indicates that as a group they were somewhat comfortable with the idea of working with junior high teachers. The junior high teachers had a mean score of 2.36, which indicates that they were not as excited with the idea of working with the sixth grade teachers. However, both scores demonstrated that the teachers were somewhat comfortable with this reality. There was not a significant difference in the scores for the two groups on this item.

The total anxiety score was made up of questions 16, 19, 20, 21, and 22 on the survey. The sixth grade teachers' mean score was 13.12 while the junior high teachers' mean was 14.36. There was a significant difference in the scores for the two groups. Initially, the sixth grade teachers appear to be less anxious about the change process than the junior high teachers appear to be.

Teacher Anxiety After Staff Development

The fourth research question was designed to identify the degree to which teacher anxiety changed as a result of staff development training on essential elements of the middle school. The pretest and posttest mean scores, the amount of change that occurred, and the levels of significance of such differences were computed for the responses by both the sixth grade teachers and the junior high teachers. A correlated t-test was used to determine the level of significance for differences between the pretest and the posttest. Similar statistics were determined for the total anxiety score for both the sixth grade teachers and the junior high teachers. The results for the sixth grade teachers are listed in Table IX. A similar comparison was made for junior high teachers in Table X. Again, correlated t-tests were performed on pretest and posttest scores in order to determine the significance of the change.

Junior high teachers made a greater amount of positive change in question 16 which was dealing with whether the teacher was looking forward to the challenge of teaching in a middle school. At the same time, the sixth grade

teachers became more apprehensive about that same challenge. For this question there was not a significant difference in the two mean scores. However, after receiving the staff development training, both groups could somewhat agree that they were looking forward to this teaching challenge.

TABLE IX

FOLLOW-UP RESULTS ON ANXIETY
FOR SIXTH GRADE TEACHERS

Question	Pretest Mean	Posttest Mean	Change	Significant Difference
16	1.98	2.06	-0.08	0.064
19	2.18	2.00	0.18	0.059
20	2.70	2.08	0.62	0.001
21	2.02	1.77	0.25	0.003
22	2.10	2.00	0.10	0.008
Total Anxiety Score	13.12	11.79	1.33	0.001

TABLE X

FOLLOW-UP RESULTS ON ANXIETY
FOR JUNIOR HIGH TEACHERS

Question	Pretest Mean	Posttest Mean	Change	Significant Difference
16	2.45	2.25	0.20	0.064
19	2.71	2.5	0.21	0.059
20	3.05	2.31	0.74	0.001
21	2.68	2.31	0.37	0.003
22	2.36	1.93	0.43	0.008
Total Anxiety Score	14.36	12.90	1.46	0.001

Junior high teachers exhibited a greater degree of change with respect to question 19 which concerns how comfortable the teachers were with the change from junior high schools to middle schools. Both groups of teachers made significant changes from their pretest scores, which indicates that they became more comfortable with the change to middle schools after the year of staff development.

Both groups of teachers made their greatest gains in question 20 of the survey. This concerned how comfortable the teachers were with their knowledge about the essential elements of middle schools. Junior high teachers made the greatest gains in this item. Both groups of teachers made significant changes after the year of staff development.

Being more comfortable with the middle school philosophy would decrease the anxiety experienced by the teachers, which was the reason for question 21 on the survey. Again, the junior high teachers made the greatest gains in this item. However, both groups made significant gains from their pretest scores. Junior high teachers were somewhat comfortable with the middle school philosophy, where as the sixth grade teachers were very comfortable with the same philosophy.

The junior high teachers made the greatest change in their attitude concerning willingness to work with teachers from a different level. The sixth grade teachers made a significant change also, but it was not nearly as great. Sixth grade teachers were somewhat comfortable with the idea of working with junior high teachers when at the same time the junior teachers were approaching being very comfortable with the same aspect.

Both groups of teachers became significantly less anxious overall after the year of staff development according to the results of the total anxiety scores. Junior high teachers made the greatest amount of change, yet they still scored less than the sixth grade teachers in the final analysis.

Middle School Philosophy and Anxiety

Demographic Variables

Research question five focused on the relationship between demographic variables and the level of middle school philosophy and the degree of anxiety experienced during the change process. One-way ANOVA and factorial ANOVA were used to analyze the data from the study.

This section was divided into two parts. In the first half, pretest data were compared to relevant teacher demographic data. In the second half, posttest data were analyzed.

Pretest

In this first section, the following teacher demographic data were analyzed to determine if there was a significant relationship to a positive middle school philosophy: gender, age, middle school teaching experience, and the type of certification. There were three demographic interactions that were also analyzed. Those were gender and age, gender and grade level being taught, and gender and previous middle school teaching experience. Following those comparisons, the teacher demographic data were analyzed to determine if there was a significant relationship to the amount of teacher anxiety before staff development activities.

The following comparisons were made with the level of teacher anxiety: age, gender, and previous middle school teaching experience.

A 2x3 factorial design was used to analyze the degree of support for the middle school philosophy prior to staff development with gender as one variable and teacher age as the other. The results of the analysis of variance disclosed that there was a significant difference between the two genders, with female teachers demonstrating a greater support for middle school philosophy ($F = 8.812$, $df = 1$, $p < .01$). There was also a significant difference among the different age groups of teachers ($F = 3.665$, $df = 2$, $p < .05$). The interaction of the two main effects was also significant ($F = 3.461$, $df = 2$, $p < .05$).

A 2x2 factorial design was then used in relation to support for the middle school philosophy with gender as one variable and the level presently teaching as the other. These results also indicated that there was a significant difference for gender with female teachers again having a greater support for the middle school philosophy ($F = 12.460$, $df = 1$, $p < .001$). There was not a significant difference between the grade level taught and the level of support for the middle school philosophy. The interaction of the two main effects was significant with female sixth grade teachers having the greatest level of support for the middle school philosophy ($F = 2.931$, $df = 1$, $p < .05$).

A 2x2 factorial design was used with gender as one variable and teacher middle school experience as the other variable. The results of the analysis of variance to measure middle school philosophy prior to staff development disclosed

a significant difference between the two genders with females having a greater level of middle school philosophy ($F = 3.081$, $df = 1$, $p < .05$). There was a significant difference between the teachers who had middle school experience with, those that had experience having a greater level of middle school philosophy ($F = 5.110$, $df = 1$, $p < .03$). The interaction of main effects was also significant with male teachers who had taught in middle schools having the greatest level of middle school philosophy ($F = 6.194$, $df = 1$, $p < .01$).

A one-way analysis of variance was used to compare the type of teacher certification to the level of support for the middle school philosophy. There was a significant difference between the types of certification, with elementary certified teachers having the greatest support for middle school philosophy prior to the staff development ($F = 6.433$, $df = 1$, $p < .005$).

A 2x2 factorial design was used with gender as one variable and middle school experience as the other variable. The results of the analysis of variance concerning level of anxiety before staff development training disclosed that there was a significant difference between the genders, with male teachers being less anxious ($F = 3.098$, $df = 1$, $p < .05$). There was also a significant difference between teachers, those with prior teaching experience in a middle school experienced less anxiety ($F = 5.792$, $df = 1$, $p < .01$). There was not a significant interaction between the main effects.

A one-way analysis of variance was used to compare the teachers' age with the level of anxiety experienced before any staff development training. There was

a significant difference between the two genders with females having a greater level of middle school philosophy ($F = 3.081$, $df = 1$, $p < .05$). There was a significant difference between the teachers who had middle school experience with, those that had experience having a greater level of middle school philosophy ($F = 5.110$, $df = 1$, $p < .03$). The interaction of main effects was also significant with male teachers who had taught in middle schools having the greatest level of middle school philosophy ($F = 6.194$, $df = 1$, $p < .01$).

A one-way analysis of variance was used to compare the type of teacher certification to the level of support for the middle school philosophy. There was a significant difference between the types of certification, with elementary certified teachers having the greatest support for middle school philosophy prior to the staff development ($F = 6.433$, $df = 1$, $p < .005$).

A 2x2 factorial design was used with gender as one variable and middle school experience as the other variable. The results of the analysis of variance concerning level of anxiety before staff development training disclosed that there was a significant difference between the genders, with male teachers being less anxious ($F = 3.098$, $df = 1$, $p < .05$). There was also a significant difference between teachers, those with prior teaching experience in a middle school experienced less anxiety ($F = 5.792$, $df = 1$, $p < .01$). There was not a significant interaction between the main effects.

A one-way analysis of variance was used to compare the teachers' age with the level of anxiety experienced before any staff development training. There was

a significant difference between teachers in the youngest age group, 21 to 35, and those in the other two age groups, with the younger teachers experiencing less anxiety ($F = 2.460$, $df = 2$, $p < .05$).

Posttest

In this last section, the following teacher demographic data were analyzed to determine if there was a significant relationship to a positive middle school philosophy after staff development training: experience, age, certification, and the grade level being taught by the teacher. There were two demographic interactions that were also analyzed. Those were the age and grade level being taught by the teacher along with the age and certification of the teacher. Following those comparisons, the demographic data were analyzed to determine if there was a significant relationship to the level of teacher anxiety after staff development activities. The following comparisons were made: gender and the teacher's age. The interaction between gender and age, and gender and certification were analyzed.

A 2x3 factorial design was used with teaching experience as one variable and the grade that the teachers were presently teaching as the other variable. The results of the analysis of variance to test for the level of teachers' support for the middle school philosophy after staff development training disclosed that there was a significant difference between the experience groups of the teachers, with the

less experienced teachers having a greater level of middle school philosophy ($F = 7.106$, $df = 2$, $p < .001$). There was a significant difference between the teachers who were teaching sixth grade and in the junior high school, with the sixth grade teachers having a greater level of support for the middle school philosophy ($F = 7.652$, $df = 1$, $p < .01$). The interaction of the main effects was also significant, with the least experienced, sixth grade teachers having the greatest level of support for the middle school philosophy ($F = 2.325$, $df = 2$, $p < .05$).

A 3x3 factorial design was used with the teachers' age as one variable and the type of certification the teacher holds as the other variable. The results of the analysis of variance to test for the level of middle school philosophy after staff development training disclosed that there was a significant difference between the teacher age groups, with the youngest teacher group having the greater level of support for the middle school philosophy ($F = 3.701$, $df = 2$, $p < .01$). There was also a significant difference between the teachers with different types of certification, with elementary certified teachers having the greater level of support for middle school philosophy ($F = 7.838$, $df = 2$, $p < .001$). The interaction of the main effects was also significant, with the younger, elementary certified teachers having the greatest level of support for the middle school philosophy.

A 2x3 factorial design was used with gender as one variable and the teachers' age as the other variable. The results of the analysis of variance to test the degree of teacher anxiety after staff development training disclosed a

significant difference between the genders, with female teachers expressing a lesser amount of anxiety ($F = 2.740$, $df = 1$, $p < .05$). There was not a significant difference between the different teacher age groups. The interaction between the main effects was significant, with the female, middle age group experiencing the lesser amount of anxiety ($F = 3.196$, $df = 2$, $p < .05$).

A 2x3 factorial design was used with gender as one variable and the type of certification held by the teacher as the other variable. The results of the analysis of variance to test for teacher anxiety after staff development training disclosed that there was not a significant difference between the two main effects. However, the interaction of the main effects was significant, with female, secondary certified teachers being the least anxious ($F = 2.969$, $df = 2$, $p < .05$).

Summary

The population that was sampled in this study was composed of mainly females (78%). The majority of the teachers had between 13 and 24 years of teaching experience and were between 36 and 50 years old. Most of the teachers (79%) had no experience teaching in a middle school. The certification held by the teachers was almost even, with 39% being elementary and 44% having secondary.

Prior to the staff development training, there was a significant difference between the middle school philosophies of sixth grade teachers and junior high teachers. Sixth grade teachers had the greatest level of support for the issue of

organizing to assure the success for all students. Junior high teachers had the greatest level of support for the idea that schools and communities should be partners in educating young adolescents. Sixth grade teachers had the lowest level of support for middle schools including an elective program for all students. Junior high teachers had the lowest level of support for the statement regarding middle schools as having a more positive school climate than junior high schools. The greatest level of significance on the pretest occurred between the two groups of teachers in the areas of advisor-advisee and the climate of a middle school. The sixth grade teachers were more positive about the advisor-advisee program and middle schools principles, while junior high teachers were much less positive about the same two areas.

Following the staff development activities, there was a significant positive movement in the scores for both sixth grade and junior high teachers. This brought both groups into a better alignment with the middle school philosophy. The sixth grade teachers made the greatest amount of change on the item that states that middle schools should have an exploratory elective program for all students. They also made a significant change in their level of support that middle schools would possess a more positive school climate than a junior high school. Junior high teachers made their greatest amount of positive change on the item that believes that middle schools should be arranged so that there are schools within a school. The junior high teachers also made a significant improvement in their level of support for the component of interdisciplinary teaming in middle

schools. Following the staff development training, junior high teachers' level of support actually decreased in the ability of a middle school to ensure the success of all students.

Prior to the staff development training, there was a significant difference between the anxiety expressed by sixth grade teachers and junior high teachers. Sixth grade teachers reported less anxiety than did junior high teachers. The sixth grade teachers reported that they were as a group more comfortable with the middle school philosophy than were the junior high teachers.

Following the staff development training, both groups of teachers made significant positive improvements on their scores on anxiety. Both groups of teachers made the greatest positive change in their knowledge of middle schools and the differences between them and traditional junior high schools. Both groups changed about the same amount so they maintained the same relative level of anxiety.

The data collected from the factorial analysis of variance indicated that younger female teachers had a greater level of middle school philosophy than the other groups before staff development training had occurred. Male teachers that are between 36 and 50 years old had the lowest level of support for the middle school philosophy prior to staff development training.

Female sixth grade teachers had the greatest level of support for the middle school philosophy before staff development training, as compared with male sixth grade teachers with the lowest levels of support. Male teachers who

had taught in a middle school before had a significantly higher middle school philosophy than male teachers that had not had the experience. Male teachers who had not taught in a middle school had a significantly lower middle school philosophy compared to all other groups. Elementary certified teachers had again a greater middle school philosophy than secondary certified teachers.

Before staff development training had taken place, female teachers had a lower anxiety level than male teachers. Teachers whose age was between 36 and 50 had less anxiety than teachers who were younger or older. Teachers who had taught in a middle school before had a lesser degree of anxiety. Finally, elementary certified teachers had a lower amount of anxiety than other certified teachers.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND COMMENTARY

This chapter includes a summary of the study, the conclusions drawn from the findings, recommendations for further research, and a commentary. The chapter was designed to bring together the data and the analysis of the study in an effort to explore the implications for schools contemplating a change from junior high schools to middle schools.

Summary

With any major change in school organizations, such as that from the traditional junior high school to the middle school, teachers and others are likely to experience a degree of anxiety. While a certain amount of anxiety may be beneficial to the change process, when anxiety becomes paramount, other issues may fail to be discussed and the anxious participants thus may be less informed and less prepared for the change. Teachers feeling isolated from the change process may be less likely to accept or internalize the middle school philosophy and, as a result, little real change may occur from the "old" junior high school setting. However, teachers who are involved in the change process, especially

those provided with quality professional staff development, should find the new middle school philosophy to be a challenge and not a threat. Under these conditions, significant changes in the methods used to educate adolescents should occur. The purpose of this study was to examine the impact of the staff development provided for teachers who are in the process of changing from the junior high school setting to the middle school setting and consider whether or not it can lessen the anxiety of those teachers while increasing their understanding and acceptance of the middle school philosophy.

The study was designed to collect data from the entire population of 224 sixth, seventh, and eighth grade teachers in the Putnam City (Oklahoma) school district. The population of teachers was surveyed twice during the period of time in which the study was conducted. The first survey was done before any significant staff development was provided on middle school philosophy; the second survey was collected after the first year of staff development training which focused on middle school essential elements.

The data analysis involved the use of descriptive statistics, t-tests, correlated t-tests, and factorial ANOVA. A middle school philosophy score was determined for the teachers in both the pretest and the posttest. Likewise, an anxiety level score was computed before and after one year of staff development training. The t-tests, correlated t-tests, and factorial ANOVAs were evaluated for statistical significance at the 0.05 level.

Responses indicated that sixth grade teachers supported the middle school philosophy to a greater degree than did the junior high school teachers. Data indicated that, after one year of staff development training, both groups of teachers showed a significant improvement in support for the middle school philosophy. Of the two groups, the sixth grade teachers made the greatest degree of change in this area.

Before staff development, sixth grade teachers appeared to be less anxious about the change process than were the junior high school teachers. Both groups of teachers became significantly less anxious after the year of staff development. Junior high school teachers showed the greatest amount of change in level of anxiety but were still more anxious than were the sixth grade teachers in the final analysis.

Conclusions

1. Teacher anxiety over the change process to middle schools can be reduced by staff development training pertaining to middle school philosophy. Both groups of teachers became significantly less anxious after one year of staff development activities. Junior high teachers made the greatest amount of change, yet they still appear to be more anxious than the sixth grade teachers. Both groups of teachers made their greatest changes in the area of knowledge about middle schools and what makes them different from junior high schools. The

junior high teachers gained significantly on all items, with a particularly high score in their willingness to work with incoming sixth grade teachers.

2. Elementary certified teachers are more aligned with the middle school philosophy than are secondary teachers. The data indicated that both before and after the staff development activities, the sixth grade teachers possessed a more positive perspective on middle school philosophy than did the junior high teachers. The sixth grade teachers reported strong beliefs about middle schools being organized to ensure the success for all students. They also agreed with the concept of schools and communities working together in the education of young adolescents. After the staff development activities, sixth grade teachers agreed with every concept concerning middle school philosophy.

3. Teachers between the ages of 36 and 50 are less anxious about change than older or younger teachers. Both the youngest and the oldest teachers were more anxious about impending change. The data that were collected from the factorial analysis of variance indicated that elementary certified teachers in this range experienced less anxiety over the change process than the secondary certified junior high teachers.

4. Female teachers are less anxious about change than are their male counterparts. This could have been the result of female teachers having a greater knowledge of the middle school philosophy and, as a result, being less threatened by the changes. Junior high teachers were somewhat uncomfortable with the whole idea of changing the arrangement of the schools.

5. The youngest, elementary certified teachers were able to assimilate the middle school philosophy into their own philosophies easier than were members of the other sub groups of teachers. The data obtained from the study indicated that younger female teachers had a greater level of support for middle school philosophy than the other groups both before and after staff development training had occurred. Male teachers between 36 and 50 years of age had the lowest level of support for the middle school philosophy.

Recommendations

1. A follow-up study should be conducted in the Putnam City school district after the second year of staff development training to determine if anxiety levels continue to decrease with additional knowledge of middle school components.

2. A follow-up study should be also conducted in the Putnam City school district after the first full year of implementation of the middle school arrangement to determine if teacher scores for support and anxiety continue to improve.

3. A research study could be designed to examine what kind of staff development activity was most effective in reducing the anxiety and increasing the knowledge of middle school practices for teachers. The study could also determine if different staff development activities are more effective for the different types of teachers.

4. Similar studies should be conducted in other school districts that are going through this change process to determine if staff development can reduce the anxiety in other similar settings.

5. A similar research study should be designed with a control group. This would help determine if the staff development activities caused the changes that were observed in this study.

6. Similar studies should be conducted using administrators, counselors and parents as populations. These studies would determine if staff development activities affected their knowledge of the middle school philosophy and whether that knowledge had an effect on their anxiety over then change process.

Commentary

The purpose of this study was to examine the impact of staff development provided for teachers who are in the process of changing from the junior high school setting to the middle school setting and consider whether or not it can lessen teachers' anxiety regarding the change process and/or increase their support for the middle school philosophy. The review of literature provided a base which uggested the possibility that a correlation might exist between the level of support for the middle school philosophy and the degree of anxiety experienced by individuals affected by the change. This had been previously noticed among the teachers in junior high school buildings and was further stimulus for the study.

The negative feelings about the future middle school arrangement by the secondary certified teachers caused the researcher to wonder if there was anything that could be done to help them see that the middle school might better meet the needs of early adolescents. If the teachers continued into the transition phase of the change process with this negative attitude, would they miss an understanding of the very important reasons for making this bold move?

Many of the junior high school teachers in the district were very comfortable with the way students were being taught, and many of them believed that if junior high school had been good enough for them, then it was good enough for the students of today. In other words, the traditional junior high school philosophy was expected to continue as appropriate for young adolescents. The secondary teachers, as a group, were less likely to examine their motives for teaching in a particular way than were the elementary school teachers. Secondary teachers were very concerned with the change process because it meant that they would have to examine how they felt about these children and what would be the best way of matching the students' characteristics to a particular belief system. Most secondary teachers believed that it was the students' responsibility to learn, instead of their responsibility to teach. The opposite was true for the elementary school teachers who were much less structured but, at the same time, very organized. They were, as a group, much more concerned with the well-being of the children and whether or not they understood a concept rather than whether they completed a certain series of lessons on time.

Something is basically wrong with the preparation process for secondary teachers because of this lack of student-centered belief. Public education may be endangered if policymakers continue to let this happen. Schools are being controlled more and more by restrictions imposed by those outside the field of education. Many good secondary teachers may be thrust into the same old mold by these restrictions.

Colleges of education are under considerable public and political pressure to "turn out" teachers who are content specialists. This is evidenced by the teacher testing programs that have become a popular way of increasing the "quality" of instruction in our schools. As the amount of information that our graduates are expected to know increases, less time is devoted to the developmental needs and characteristics of the students who the secondary teacher serves. The art of teaching has been replaced with the science of teaching. This is a significant change in mind-set. The emphasis on the factory model, mechanistic in nature, has led the public to believe that all students can and should learn at the same rate and with the same methods if only the teachers are effective. Learning is no longer perceived as a personal thing that should be enjoyed by the student. Instead, it is a laborious process that must be endured, that continues to become less personalized and more dictated by the requirements needed to graduate. It is a constant war that continues to wage with secondary teachers: whether to teach the book or teach the child. Public schools are not long for this world if the current situation does not improve.

Learning is an individual experience. The "good teachers" teach the course and not just the book. They are genuinely interested in a student's progress and offer to help students cope with their individual problems both in the academic course and in their personal lives. We cannot afford to ignore the nurturing dimension of teaching. Otherwise, elementary and secondary schools will make a mistake similar to one that for which universities are coming under increasing criticism, namely, promoting research and writing at the expense of excellence in teaching performance.

Our society has basically said that the faster you can get something done the better off everyone will be. More is always better. We have allowed these thoughts to find their way into education. Students are rushed through their 12 or 13 years of school, learning more and more "information" but actually being able to use less and less of it. If we value creative thinking and the ability to solve problems at high levels, then such learning must be planned and allowed to happen at the learners' rate, not ours.

It is very interesting that the teachers who were able to learn about the middle school philosophy and assimilate it into their own thinking in the quickest manner were the youngest teachers in the profession. It may be true that you can not teach an old dog new tricks, but it is a sad story if more experienced teachers cannot readily learn a better way of instructing their students. There must be a continuous method of obtaining meaningful staff development for teachers throughout their careers. Teachers must be actively involved with the decisions

that affect their teaching and their development as professionals. If teachers can understand and agree that the typical junior high school mentality and methodology no longer "fit" the developmental and psychological needs of the students they serve, many teachers could more readily learn to function in the middle school setting. While "Show me why I need to change" was the predominant feeling initially, for many teachers it was followed by "I can see that this better meets my goals as a teacher."

The fact that teachers provided evidence of significant changes in attitude about how students in this age group should be treated, as well as a reduced degree of apprehension concerning the proposed change, speaks well for the teachers and for their professionalism. With effective staff development, such change can and will occur with the teachers better informed and anticipating the challenge. When that occurs, changes will last and will be in the best interest of the children we teach.

BIBLIOGRAPHY

Alexander, W. M. (1968). A survey of organizational patterns of reorganized middle schools (Final Report No. 7-D-026). Gainesville, FL: University of Florida. (ERIC Document Reproduction Service No. ED 024 121).

Alexander, W. M. (1984). The middle school emerges and flourishes. In J.E. Loundsbury (Ed.) Perspectives: Middle school education, 1964-1984 (pp. 14-29). Columbus, OH: National Middle School Association.

Alexander, W. M. (1988, February). Schools in the middle: Rhetoric and reality. Social Education, 52(2), 107-109.

Alexander, W. M., & George, P.S. (1981). The exemplary middle school. New York: Holt, Reinhart, & Winston.

Argyris, C., & Schon, D. (1978). Organizational learning: A theory of action perspective. Reading, MA: Addison-Wesley.

Argyris, C. (1982). Change in organizations, San Francisco: Jossey- Bass.

Brooks, K., & Edwards, F. (1978). The middle school in transition: A research report on the status of the middle school movement. Lexington, KY: College of Education, University of Kentucky.

Calhoun, J. D. (1983). Organization of the middle grades: A summary of research. Arlington, VA: Educational Research Services.

Carnegie Task Force on Education of Young Adolescents. (1989). Turning points: Preparing American youth for the 21st Century. New York: Carnegie Council on Adolescent Development of the Carnegie Corporation.

Compton, J. B. (1976). The middle school: A status report. Middle School Journal, 7,35.

Cuff, W. A. (1967). Middle schools on the march. Bulletin of the National Association of Secondary School Principals, 51, 82-86.

Eichhorn, D. H. (1966). The middle school. New York: Center for Applied Research.

Eichhorn, D. H. (1984). The nature of transescence. In J.E. Lounsbury (Ed.) Perspectives: middle school education. Columbus, OH: National Middle School Association.

Epstein, J. L. (1989). Staff development in the middle grades (Report No. 38). Center for Research on Elementary and Middle Schools, Baltimore, MD: Office of Educational Research and Improvement. U.S. Department of Education (ERIC Document Reproduction Service No. ED 332 288).

Fullan, M. G., & Stiegelbauer, S. (1991). The new meaning of educational change (2nd ed.). New York: Teachers College Press.

Gatewood, T. (1972). What research says about the junior high versus the middle school. North Central Association Quarterly, 46, 264-265.

Grove, P. B. (Ed.) (1981). Webster's third new international dictionary. Merriam-Webster Inc.

Gruhn, W. T., & Douglas, H. R. (1947). The modern junior high school. (1st ed.). New York: Ronald Press.

Gruhn, W. T., & Douglas, H. R. (1956). The modern junior high school. (2nd ed.). New York: Ronald Press.

Gruhn, W. T., & Douglas, H. R. (1971). The modern junior high school. (3rd ed.). New York: Ronald Press.

Kanthak, L. M. (1992). 10 principles of successful middle level schools. Reston, VA: National Association of Secondary School Principals.

Kealy, R. P. (1971). The middle school movement, 1960-1970. The National Elementary Principal, 51, 20-25.

Lounsbury, J. H., (Ed). (1984). Perspectives: Middle school education, 1964- 1984. Columbus, OH: National Middle School Association.

Lounsbury, J. H., & Vars, G. F. (1978). A curriculum for the middle school years. New York: Harper & Row.

Margolis, H. (1991). Understanding, facing resistance to change. NASSP Bulletin, 75 (573), 1-9.

Mauriel, J. J. (1989). Strategic leadership for schools: Creating and sustaining productive change. San Francisco, CA: Jossey-Bass.

Melton, G. E. (1984). The junior high school: Successes and failures. In J.E. Loundsbury (Ed.) Perspectives: Middle school education, 1964-1984. Columbus, OH: National Middle School Association.

Merenbloom, E. Y. (1988). Developing effective middle schools through faculty participation. Columbus, OH: National Middle School Association.

National Education Association. (1894). Report of the committee of ten on secondary school studies. New York: American Book Company.

National Middle School Association. (1982). This we believe. Columbus, OH: Author.

Parkay, F., & Damico, S. B. (1989). Empowering teachers for change through faculty-driven school improvement. Journal of Staff Development, 10(2), 8-14.

Rodgers, J. S. (1990). Teacher managed staff development. Washington, D.C.: Office Of Educational Research and Improvement, U.S. Department of Education. (Eric Document Reproduction Services No. ED 319 698).

Sarason, S. B. (1992). The predictable failure of educational reform. San Francisco: Jossey-Bass.

Schlecty, P. C. (1990). Schools for the 21st Century. San Francisco: Jossey-Bass.

Shimniok, L. M., & Schmoker, M. (1992). How we made the transition from junior high to middle school. Educational Leadership, 49(5), 27-29.

Stephens, D. M. (1991). Transition from junior high to middle school: A principal's perspective on reorganization. Middle School Journal, 18(4), 46-51.

Toepfer, C. F.,Jr., Lounsbury, J.H., Arth, A.A., & Johnson, J.H. (1986, September). Editorial. Clearing House, 60(1), 6-10.

Toepfer, C. (1984). Staff development and in-service education. In J.E. Loundsbury (Ed.) Perspectives: Middle school education, 1964-1984. Columbus, OH: National Middle School Association.

Toepfer, C. (1979). In-service needs in the middle grades. Dissemination Services of the Middle Grades, Nov 11, 3.

Valentine, J. W., Clark, D. C., Nickerson, N. C.,Jr., & Keefe, J. W. (1981). The middle level principalship. In A survey of middle level principals and programs (pp. 75-77). Reston, Virginia: National Association of Secondary School Principals.

Whitfield, E. L. (1983). Middle school staff development. Clearing House, 56(5), 230-31.

Williamson, R., & Johnston, J. H. (1991). Planning for success: Successful implementation of middle level reorganization. Reston, VA: National Association of Secondary School Principals.

APPENDIXES

APPENDIX A

SURVEY INSTRUMENT

PLEASE SEPARATE THIS FROM THE QUESTIONNAIRE AND RETURN IT ALONG WITH YOUR RESPONSES. THIS WILL INSURE THAT YOUR RESPONSES WILL REMAIN CONFIDENTIAL.

I have filled out the questionnaire and have mailed it back to Don Wentroth at Central Junior High school.

NAME : _____

SCHOOL: _____

MIDDLE SCHOOL ATTITUDES

Please circle or supply the appropriate answer to the following questions.

1. Gender: Male Female

2. Total years experience as a classroom teacher:

   0-4 5-8 9-12 13-16 17-20 21-24 25-28 29-32 33-36

3. Your age group:

   21-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65

4. Which grade(s) are you presently teaching? 6 7 8

5. Have you taught in a middle school before? Yes No

6. What type of certification do you hold?

   Elementary Secondary K-12 Other:_____

Indicate the degree to which you agree or disagree with each of the following, then respond to the open ended question that follows.

strongly agree SA **agree A** **undecided U** **disagree D** **strongly disagree SD**

7. Interdisciplinary teaming is an important component in middle schools. SA A U D SD

   How would you define interdisciplinary teaming?

8. The advisor-advisee relationship is an important component in middle schools. SA A U D SD

   How would you define the advisor-advisee concept?

9. Middle schools should be arranged so that we have a school within a school. SA A U D SD

   What does a school within a school mean to you?

10. Student participation in intramurals is an important component in middle schools. SA A U D SD

    What would this say about our philosophy concerning participation?

11. Middle schools would possess a more positive school climate than junior high schools. SA A U D SD

    What makes up a positive school climate?

12. Middle schools should transmit a core of common knowledge to all students. SA A U D SD

    What would you say should be subjects in the common core?

13. Middle schools should be organized to ensure success for all students. SA A U D SD

    How could this be accomplished?

14. Schools and communities should be partners in educating young adolescents. SA A U D SD

    What does this mean to you?

15. An exploratory elective program is needed for all young adolescents. SA A U D SD

    What does an exploratory elective program mean to you?

16. I am looking forward to the challenge of teaching in a middle school. SA A U D SD

17. The work load for teachers will be greater in the middle school. SA A U D SD

18. The materials I've used to teach with will not be appropriate for middle schools. SA A U D SD

Indicate your response to the following questions by using the scale of 1 to 5.

very comfortable 1	somewhat comfortable 2	Neutral 3	somewhat uncomfortable 4	very uncomfortable 5

19. How comfortable are you with the change from Jr. high schools to middle schools? 1 2 3 4 5

20. How comfortable are you with your knowledge about the essential elements that make middle schools different from junior high schools? 1 2 3 4 5

21. How comfortable are you with the middle school philosophy? 1 2 3 4 5

22. A) How comfortable are you with working with elementary teachers? (secondary teachers) 1 2 3 4 5
    B) How comfortable are you with working with secondary teachers? (elementary teachers) 1 2 3 4 5

APPENDIX B

COVER LETTER FOR SEPTEMBER 3, 1991

September 3, 1991

Dear Teacher,

I am currently working on my doctorate degree at Oklahoma State University and have chosen a topic on middle schools for my dissertation. You have been selected to participate in a study involving your present knowledge and perceptions of middle schools.

Please take just a few minutes to answer the questions on the following pages. I realize how important your time is, so I appreciate your participation. All responses will be kept confidential! In fact, none of the data, conclusions, or findings will be published prior to 1993.

It will be important for me to follow up on those teachers who do not return their surveys to me. The following procedure will allow me to keep track of those who have returned the surveys while ensuring your responses will remain anonymous. After you have filled in the questionnaire, remove and sign the first page. Fold and staple the questionnaire and first page separately, and return them to me by the inter-school mail. I will then know who has responded, but not which response was theirs. You can help by answering the following questions and returning your responses today. Again, thank you for taking time to fill in the questionnaire.

Sincerely,

Don Wentroth, Asst. Principal

Central Junior High School

APPENDIX C

COVER LETTER FOR SEPTEMBER 11, 1991

September 11, 1991

Dear Teacher,

Two weeks ago, I sent you a questionnaire concerning your knowledge and feelings about our move to the middle school concept. In the event you misplaced yours in the excitement of the new school year, I am sending you another one.

Please take a few minutes to complete this survey even if you feel uninformed about middle schools. My study will be a comparison of information presently known and later learned about middle schools, and how that affects the feelings about the change in structure.

If my study is to be significant, I need between 60 and 80 percent of my surveys returned. What I need are your honest feelings and best effort on the questions.

All responses will be kept confidential! After you have filled in the questionnaire, remove and sign the first page. Fold and staple the questionnaire and first page separately, and return them to me by the inter- school mail.

Again, I realize the imposition this is on your time, but your help is greatly appreciated.

Sincerely,

Don Wentroth, Asst. Principal

Central Jr. High School

APPENDIX D

COVER LETTER FOR APRIL 27, 1992

April 27, 1992

Dear Teacher,

At the beginning of the school year, I sent you a questionnaire concerning your knowledge and feelings about Putnam City's move to the middle school concept. I am sending you another questionnaire so that I can compare how more knowledge about middle schools has affected your feelings about the change in structure.

I realize that this is a great imposition on your time, but your help is greatly appreciated. I will be unable to send out a second questionnaire this time, so your prompt attention is needed. I need your honest feelings and best effort on the questions.

All responses will be kept confidential! After you have filled in the questionnaire, remove and sign the first page. Fold and staple the questionnaire and first page separately, and return them to me by the interschool mail.

I hope your school year has been a good one. I know we are all looking forward to this summer! Again, thank you for your help.

Sincerely,

Don Wentroth, Asst. Principal

Central Jr. High School

VITA

Donald George Wentroth Jr.

Candidate for the Degree of

Doctor of Education

Thesis: THE IMPACT OF STAFF DEVELOPMENT ON TEACHERS' SUPPORT FOR MIDDLE SCHOOL PHILOSOPHY AND ANXIETY TOWARD CHANGE

Major Field: Educational Administration

Biographical:

Personal Data: Born in Oklahoma City, Oklahoma, June 11, 1954, the son of Donald G. and Gwen Wentroth.

Education: Graduated from John Marshall High School, Oklahoma City, Oklahoma in May, 1972; received Bachelor of Science degree from Oklahoma State University, Stillwater, Oklahoma, in May 1976; received Master of Education degree from Central State University, Edmond, Oklahoma, in July 1980; completed requirements for the Doctor of Education degree at Oklahoma State University in May, 1993.

Professional Experience: Biology Teacher, Boswell School District, Boswell, Oklahoma, 1976-1977; Teacher/Specializing in Science, Putnam City School District, Oklahoma City, Oklahoma, 1977-1984; School Counselor, Ponca City School District, Ponca City, Oklahoma, 1984-1985; Teacher/Specializing in Science, Putnam City School District, Oklahoma City, Oklahoma, 1985-1990; Assistant Principal, Putnam City School District, Oklahoma City, Oklahoma, 1990 to present.