# gIFTED STUDENTS' PERCEPTION OF THE CLASSROOM ENVIRONMENT WHEN PLACED WITH TEACHERS OF SIMILAR OR DISSIMILAR 

INSTRUCTIONAL STYLE

By<br>MICHELLE DAWN SUMNER<br>Bachelor of Science<br>Oklahoma State University

1984

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of the requirements for the Degree of MASTER OF SCIENCE

May, 1992

Statas
198
'ancy

# GIFTED STUDENTS' PERCEPTION OF THE CLASSROOM 

ENVIRONMENT WHEN PLACED WITH TEACHERS OF SIMILAR OR DISSIMILAR INSTRUCTIONAL STYLE

Thesis Approved:


Dean of the Graduate College

## ACKNOWLEDGMENTS

I wish to express my sincere appreciation to Dr. Diane Montgomery. She not only provided encouragement for my professional growth; but, supported personal goals of mine as well. Many thanks also go to Dr. Kay Bull for introducing me to the many needs of gifted children. I thank Dr. C. Robert Davis for serving on my graduate committee along with Dr. Bull and Dr. Montgomery.

To the Jenks Public Schools students who participated in the study I extend sincere thanks. Without their involvement the study would not have been possible. I would also like to thank Robbie M. Wilburn for her expert typing and proofing skills.

My parents Melrena and William J. Phillips have always been a source of constant support; but, their encouragement during this endeavor was particularly appreciated. To my husband, Brett, and daughter Ashley, I wish to extend my appreciation for their patience throughout my graduate studies. Thanks go to all of them for their undivided time in the final stages of this project. I also wish to express my gratitude to Candy Brasel for her steadfast friendship throughout this endeavor.

## TABLE OF CONTENTS

Chapter Page
I. INTRODUCTION TO THE STUDY ..... 1
Significance of the Study ..... 5
Statement of the Problem ..... 6
Definition of Terms ..... 7
II. REVIEW OF THE LITERATURE ..... 8
Giftedness ..... 8
Style Preferences of Teacher and Students ..... 9
Stability of Style Preferences ..... 13
Student Preferences and Academic Achievement ..... 15
Perception and the Classroom Environment ..... 17
Summary ..... 19
III. METHODOLOGY ..... 21
Subjects ..... 21
Instruments ..... 22
Procedures ..... 24
Design ..... 25
Hypothesis ..... 25
IV. RESULTS ..... 27
Descriptive Statistics ..... 28
Hypothesis ..... 37
Preference ..... 39
v. CONCLUSIONS ..... 40
Discussion ..... 40
Further Studies ..... 42
Summary ..... 43
REFERENCES ..... 45
APPENDIXES ..... 49
APPENDIX A - O.S.U. INSTITUTIONAL REVIEW BOARD ..... 50
Chapter Page
APPENDIX B - LOCAL SCHOOL SYSTEM APPROVAL ..... 52
APPENDIX C - MY CLASS INVENTORY ..... 54

## LIST OF TABLES

Table Page
I. MMTIC Preferences ..... 28
II. Frequency of Scores on the Five MCI Scales ..... 32
III. The Measures of Central Tendency for the MCl ..... 33
IV. ANOVA Summary Table of MCI Scales with Grade Levels ..... 34
V. Satisfaction Scores by Grade Level on MCl ..... 36
VI. ANOVA Summary Table of Differences Between Grade Levels ..... 36
VII. Mean Scores on the Five MCI Scales for S, U, and N Groups ..... 38
VIII. ANOVA Summary Table of Satisfaction Scores ..... 38

## CHAPTER I

## INTRODUCTION TO THE STUDY

Education is a long term process that establishes the patterns for learning used by students throughout a lifetime. Some teachers wish for each student to attain autonomy and acquire a value for learning which will extend beyond the classroom. To achieve this goal, it is necessary to recognize the uniqueness of each child and what he or she may bring to the learning environment. This uniqueness in learning approach is attributable to a multitude of factors and is thought to account for preferences in learning style. These factors may be genetic coding, amount of nurturing, race, nationality, mores, laws, as well as properties of self or soul and are but a few examples of factors teachers acknowledge and accommodate in the classroom (Gregorc, 1979).

These multiple factors brought to each learning situation must be considered for each child when planning for optimal learning to occur. Yet, it is common in our schools for the educational needs of the student to be diagnosed and prescribed solely from formal and entrenched instruments, such as intelligence tests or achievement measures, if the tests are even used at all. Though these instruments help in the assessment of student needs, knowledge of noncognitive variables could prove useful in counseling and placing children in a more satisfying classroom environment. Instruments used to assess noncognitive variables, such as preferences for a certain learning style, merit attention when diagnosing and
prescribing appropriate educational services for groups or individuals (Fourqurean, Meisgeier, \& Swank, 1988).

Some educators desire to provide optimal learning for all students. Because of exceptional learning needs, special populations of students require differentiated and individualized educational programs (Clark, 1992). This requires that all teachers serve them appropriately. Critical to the issue of differentiation is the population of students who qualify as gifted. Students who are gifted often have unique learning needs that can contribute to exhibition of behaviors deemed "inappropriate" by educators. For example, focusing on the abstract, impossible or fanciful ideas may, on one hand, be a common trait for a gifted student. For some teachers, the same behaviors may be considered a diversion from time on task. The way a teacher attempts to reach and teach a child can likewise be viewed as unacceptable or uncomfortable by students. These incongruencies in style between teacher and student may significantly affect student performance.

In addition to recognizing the characteristics that make each gifted student unique, a teacher needs to recognize his or her personal preferences for learning, teaching and viewing the world. With an heightened awareness of what differences exist between the students preferred method for learning and the teachers preferred method for teaching, it may be possible for teachers to view differences in learning style among students as assets. Many times, when a teacher views the child as difficult to teach, he or she may begin to doubt his or her ability to reach the child. Dettmer (1981) asserts the important relationship teaching and learning style, as embedded in personality, has to learning with the proclamation that "teachers are the key element in the school environment. Their
personalities determine the overall structure of the learning situation" (p. 48). Teachers whose teaching style is characterized as feeling will create a warm classroom environment. Their instructional emphasis would be on building personal and social awareness. Those teachers who prefer to be instructional managers will emphasize organization and purposeful work. Their instruction would emphasize drill and practice. Theoreticians will provide a classroom environment of discovery, inquiry and independence. Research, inductive reasoning and problem solving would be the instructional focus. Facilitators will emphasize originality, flexibility and imagination. Their classroom environment would allow for imagination, divergent thinking, and self expression (Myers, 1984).

Freer (1984) acknowledges the concept of instructional style defined as the element of teaching and learning style influencing teaching effectiveness. Students who have learning styles similar to the teacher's style may perceive the learning environment more favorably than those students who have learning styles different than the teacher's style. Further, it is believed that the learning and teaching style that is found most predominantly among teachers in schools will not suffice in meeting the needs of learners today. According to McCarthy (1981), seventy percent of the students are not receiving instruction most closely aligned to their needs. It was found in her study that instruction was more often than not most closely aligned to the quiet, reflective thinker. This style is thought to make up only thirty percent of the population. It is unclear if the McCarthy Reflective Thinker style is a predominant style among gifted students who are often overiooked to be in special programs because of behaviors perceived as inappropriate to the
classroom teacher. Further attention needs to be given to the student learning style and teacher teaching style relationships as they exist in the classroom.

Dorsel (1975) presents empirical data to indicate that teaching to a student's preferred style may not lead to better achievement, but could affect and possibly improve attitude. If teaching to a student's preferred style could affect and improve attitudes, then appropriate assessment for preferred learning styles and the relationship to perceived attitudes of students must be further explored as additional information for providing optimal learning for all students. If personalities play a significant role in education, then educators need to search for ways of profiling a child's personality and preferences along with intelligence and achievement tests to understand and educate the "whole" child.

Personality styles are embedded in the terms action and reflection. Mamchur (1982) defines the action oriented child as exhibiting extraverted characteristics while the reflective child exhibits introverted tendencies. She suggests the terms action orientation or reflection orientation be used rather than the terms extraverted or introverted used in the classic work of Carl Jung (1923) because they are nonevaluative and do not denote any "social connotations".

The theoretical base for this study was the classic work of Carl Jung (1923). Jung's theory postulates that an individual's preference in style can be analyzed to reflect preferences for extraversion or introversion, sensing or intuition, thinking or feeling, and judging or perceiving. The perception processes of sensing (S) and intuition ( $N$ ) refer to the way people prefer to take in information or process the world. Consistent research findings indicate that the S and N scale relate to educational functioning (Fourqurean, Meisgeier, Swank, \& Murphy, 1988). For
example, students who prefer the sensing style would be most comfortable in a classroom environment which emphasized a standard or established way of doing things. These students prefer a sequential method for completing tasks and are patient with routine tasks. Intuitives, on the other hand, dislike doing repetitive tasks. They are impatient with routine details. They are energized by their enthusiasm to learn new concepts and ideas. These preferences are viewed on a continuum. Preferences are developed as a learner becomes confortable with one way of finding things out over the other; however, individuals do not use all one preference and none of the other. Additionally, when combinations between the sensing and intuitive and thinking and judging styles are examined, they will provide information on temperment styles. Identifying individual preferences provides additional information as to a student's preferred mode of functioning. This information can be used by the teacher to adjust his or her teaching style to provide the most appropriate instruction and learning environment possible for the student (Myers, 1984).

## Significance of the Study

There are studies which suggest that placing students with teachers who have similar learning preferences enhances academic performance (Farr, 1971; Packer \& Bain, 1978; Trautman, 1979). Other studies suggest a positive relationship exists between student learning and the perceptions the student has of the classroom environment (Boulanger, 1980; Fraser \& Fisher, 1982; Haertel, Walberg \& Walberg, 1981; Talmage \& Walberg, 1978). Studies regarding students' learning styles and their perception of a satisfying learning environment are scarce, particularly at the
elementary level. The present study, with the inclusion of a measure for student perception of the classroom environment, contributes to the literature of how elementary school age students perceive their classroom environment and the effect that perception has when their preference for a certain style is similar or dissimilar from their teacher.

Statement of the Problem

Prior studies have investigated the interaction of student and teacher preferences for learning and achievement (Davis \& Frank, 1979; Farr, 1971; Packer \& Bain, 1978; Saracho \& Spodek, 1981; Trautman, 1979). Other studies have explored the relationship between student perception of the environment and achievement (Boulanger, 1980; Fraser \& Fisher, 1982; Haertel, Walberg, \& Haertel, 1981; Talmage \& Walberg, 1978). Evidence is lacking to show how a gifted student perceives the classroom environment when the gifted student has similar or dissimilar preferences in style than that of the teacher. Fraser \& O'Brien (1985) suggest a foundation has been made with regard to investigations of student perception of the classroom environment; yet, "a limited amount of published studies have been conducted at the elementary school level" (p. 568). This is particularly true with a special population of students, such as those who are gifted. Too often, the students' perception of their environment is overlooked when diagnosis and prescription is rendered at the elementary level (Weinstein, 1981). The purpose of this study was to determine if there are differences in the perception of the classroom environment between groups of students who are
gifted and placed with teachers of similar preference and students who are gifted and placed with teachers of dissimilar preference.

## Definition of Terms

Gifted. Students who score at or above the 97th percentile on a nationally standardized test of intellectual ability (Oklahoma Senate Bill 214, 1986).

Style. Behaviors which indicate how individuals learn, adapt, or respond to his/her environment (Gregorc, 1979).

Perception. Innate or learned behaviors which have an effect on the way which one views and interacts with the learning environment (Gregorc, 1979). Classroom Climate. The classroom climate is comprised of elements of satisfaction, friction, competitiveness, difficulty and cohesiveness (Fraser \& Fraser, 1982).

## CHAPTER II

## REVIEW OF THE LITERATURE

The first section of the review discusses the nature and needs of the population of gifted students in general terms relative to this study. Thereafter, the review addresses studies which are directly related to the variables in the present investigation. The review of the literature will focus on the influence of the preferred style of teachers and students and the ways that students perceive the classroom climate.

## Giftedness

Continuing controversy exists regarding how giftedness may be defined. Possible components in a definition may include high intellectual functioning (Karnes \& Whorton, 1988), academic achievement (Ross \& Parker, 1980), social behaviors (Austin \& Draper, 1981), motivation and task commitment (Renzulli, 1986) or potential for high performance (Tannenbaum, 1983). For the purpose of this study, gifted students were defined as students who score at or above the 97th percentile on a nationally standardized test of intellectual ability (Oklahoma Senate Bill 214, 1986). These students identified as gifted are thought to have a heightened ability to perceive and process information from their environment (Clark, 1992). However, limited evidence exists which establishes a relationship between the perception a gifted student has on his or her classroom environment when the gifted student is placed with a teacher of a similar or dissimilar style.

## Style Preferences of Teachers and Students

Studies have been conducted exploring the interaction of student/teacher style and academic learning (Davis \& Frank, 1979; Farr, 1971; Packer \& Bain, 1978; Saracho \& Spodek, 1981; Trautman, 1979). Research studies support placing students with teachers who have similar preferences in learning style for academic and performance reasons.

Research studies indicate matching similar learning style with teaching style leads to significant gains in achievement. Farr (1971) conducted a study with seventy-two college students. This research verifies that significant gains in achievement can be obtained when learning styles and teaching styles are similar and when individuals could predict the learning style in which optimal learning would occur. The data revealed that students should "learn and be tested" in the same style. The most productive environment for optimal learning should be one in which students are taught and tested in the student's preferred learning style. Dunn (1979) also concluded that "the closer the teaching style and learning style are matched, the higher the grade point average, consistently" (p. 431).

Similarly, both Trautman (1979) and Cafferty (1980) concur that similarities in style between teacher and student increases achievement. They agree that gains are made in achievement when styles are matched. Trautman (1979) examined student achievement in areas of knowledge, comprehension, and application in relation to appropriately matched instructional material. The results of matching and mismatching instructional material to identified learning styles showed that statistically significant academic gains were made when materials were correctly
matched to identified styles. Myers (1984) suggests that a person with a sensor style prefers instructional material emphasizing drill and practice, demonstrations, and products. An intuitive person would like instructional material geared toward problem solving, inductive and divergent thinking, and inquiry.

Domino (1970) involved students who were grouped according to their perceptions of how they thought they learned. The treatment involved placing students in environments where the teaching style was similar to the student's believed perceptions. Others were placed with teachers who taught in a style different from that perceived by the students to be matched to theirs. Results affirmed that "when students are exposed to a teaching style consonant with the ways they believe they learn best, they will improve on test scores, fact knowledge, attitude and efficiency, more than do those taught in a manner dissonant with their style" (p. 4). A consonant relationship between teacher and student learning styles requires knowledge of both teacher and student characteristics.

Students and teachers with similar learning styles enhance communication and performance. Saracho and Spodek (1981) examined sixty-four dyads of field independent or dependent students. This study on effectiveness of performance suggests field independent students matched with field independent teachers perform better than field dependent students who are matched with field dependent teachers; but, interestingly, field dependent students placed with field independent teachers and field independent students placed with field dependent teachers perform better than field dependent students do when matched with field dependent teachers. Field dependent teachers tend to exhibit more behavioral
control and ask more factual level questions. In contrast, field independent teachers asked more analytical questions (Ekstrom, 1976). This may be related to preference style as sensors prefer step by step sequential learning and intuitives prefer conceptual learning.

Packer and Bain (1978), using the Group Embedded Figures Test (GEFT) to determine field dependence or field independence, investigated what effects matching and mismatching student/teacher style had on both subjective and objective measures of student learning. Similar to Saracho and Spodek (1981), they found a match of field independent teachers with field independent students proves successful for achievement. Particularly, when characteristics are polarized to the extremes, learning performance and teacher's communication with students are enhanced. Clearly, the best match is field independent students with field independent teachers followed by the mismatches and lastly field dependent students with field dependent teachers. Frank \& Davis (1979) state that cognitively, it appears field independent students and field independent teachers are the best matched for effective performance; whereas, field dependent students and field dependent teachers are not. "It is hypothesized that field independent individuals rely more on internal frames of reference while field dependent individuals rely more on external frames of reference" (p. 469).

Some students do not demonstrate a strong preference toward field dependence or field independence. The same is true for students who are analyzed using the Murphy Meisgeier Type Indicator for Children which provides a U-band for students whose style preference is undetermined. Reckinger (1980) recognizes that gaps exist between student style and teacher style. She outlines, using the

Myers Briggs Type Indicator (MBTI), the student and teacher population as it relates to the way students and teachers prefer to process information. According to the findings, schools reward the sensor with judging student ( $38 \%$ of the population) and teacher (56\% of the population). These traditionalists look at the world and see facts and realities. They are realistic and practical. The intuitive with feeling student ( $12 \%$ ) are catalysts. They look at the world and see meanings and relationships. They have good verbal and listening skills. They enjoy creativity and are empathetic towards others. They like learning new things, particularly about self and others (Myers, 1984). Clark (1992) acknowledges studies of intuition in the educational setting suggest a preference toward intuition relates to concentration and ability to complete "complex tasks". Additionally, it becomes "a part of planning, future thinking and insight so necessary to the intelligent person" (p. 161). Yet, because of their learning style needs, the intuitives, particularly the highly intelligent intuitive may not view their classroom environment as satisfying when placed with a sensing teacher because of the qualities prevalent with the intuitive mind.

Dettmer (1981) conducted a study to determine what effect teacher's personality styles might have upon preferences for classroom values and characterizations of gifted students. Thirty-three teachers were evaluated by the MBTI. Sixteen of the teachers preferred sensing while fifteen preferred intuition. The Sensing/Intuitive dimension was thought to be the variable of greatest interest. for the study focusing on learning style. Participants then ranked twenty-two classroom values and a frequency count yielded the three most preferred and the
three least preferred. Finally, teachers were asked to define, in word association fashion, the word gifted.

These responses were grouped and analyzed within the sensing and intuitive preference style. The results of the classroom values test showed that those who preferred the sensing style favored fairness and laughter and did not like fear, chaos, disorder, and favoritism. Intuitives did not like alienation, dominance, and dogmatism. Word association to define gifted by sensors and intuitives showed that more negative adjectives were used by sensors than intuitives when describing gifted. The results lead to the conclusion that sensors may react more negatively to qualities of the intuitive learner.

The sensor with perception student (38\%) who lives through sensory perception needs action. These negotiators see the world in terms of facts and realities. They are ingenious and resourceful in getting things done. They are honest and straightforward. They have a practical approach to concrete problems. Few teachers (2\%) can identify with these learning style needs. Extraversion is more prevalent than introversion in preschool and primary divisions but introversion becomes more prevalent in upper divisions (Morris, 1979). Still, controversy exists among researchers as to whether or not style preferences remain consistent over time.

## Stability of Style Preferences

Although extraversion or introversion may prevail at various points during a student's life, one's learning style appears to remain stable. Bem and Allen (1974) confirm the stability of learning style as does Witkin, Goodenough, \& Karp (1967).

Both studies found through their longitudinal studies spanning fourteen years that "continuity in relative level of differentiation" remained over time (Witkin, Goodenough, Karp, 1967). This study extended through adolescence to adulthood. Findings noted in that study indicated that though an "increase in differentiation in perceptual functioning occurred with age, each individual tends to maintain his relative position among his peers in the distribution of measures of differentiation from age to age" (p. 297). Therefore, despite wavering between field independent tendencies, the groups maintained their position relative to their level of differentiation. At the elementary level, when analysis of data was explained from the Rod and Frame test, the test-retest correlations were significant. Satterly and Brimer (1977) also concur that "personal consistencies remain comparatively stable over time" (p. 294).

It is important to investigate relationships between psychological type and perceived classroom environment, particularly when research supports the stability of learning styles over time. If one important goal for each student is to attain autonomy and value learning, then providing an optimal educational, functioning environment for all students is paramount. One scale of psychological type that relates to educational functioning is the sensing and intuitive scale identified on assessments of psychological type such as the Myers Briggs and Murphy Meisgeier (Fourqurean, Meisgeier, Swank, and Murphy, 1988). An understanding of the way sensor and intuitive students differ in their perceptions of the learning environment may lead to a heightened awareness to adjust for certain needs of students by accommodating styles.

## Student Preferences and Academic Achievement

Fourqurean, Meisgeier, and Swank (1988) in their study exploring the link between psychological type preferences of children and academic achievement suggests that a relationship exists between the sensing and intuitive scale and academic achievement. They tested their hypothesis that preference style is independent of academic achievement on one hundred and thirty-five fourth and fifth grade students in an Arizona parochial school. The student's style preferences were compared to their performance on the lowa Test of Basic Skills.

The results showed that extraversion/introversion, thinking/feeling, and judging/perceiving appeared to be independent of academic achievement. The sensing/intuitive subscale was not. These results confirmed that $42 \%$ of the students were sensors, $36 \%$ were intuitives, and $22 \%$ were undetermined. The findings suggest that the sensing/intuitive scale relates to achievement. The high achieving students showed preference for intuition while the lower achieving students showed preference for sensing. The results suggest some systematic relationship between the sensing and intuitive preference and academic achievement. It further suggests that style relates to achievement similarily for both adults and children. Research with adult samples using the MBTI have linked preference style with high reading scores, with intuitives having the advantage.

Spiegel, Griggs, and Petrie (1988) investigated the interaction among subjects' Jungian perception preference (sensing verses intuitive), type of training (sensing congruent verses intuitive congruent verses control) and trials (early verses later attempts) to confirm that the learning styles of the $S$ and $N$ are different, thus require different instructional methods. The sensing congruent instruction was
defined as sensing students operate best in a step by step, sequential learning style. The intuitive congruent instruction was defined as conditions under which intuitives prefer a learning environment where learning is presented conceptually. The results indicate that sensors and intuitives increase their ability to identify both overt and covert feelings in others when they receive treatment different from their known preference style. Thus, for optimal empathy of others to occur, training in the "underdeveloped" preference style is recommended. Intuitives (N) are more closely linked to verbal skills than quantitative ones and introverts and intuitives will show greater academic aptitude than extraverts and sensors (McCalley and Natter, 1974). Myers and Myers (1980) states "the most conspicuous relationship between type and education lies in the apparent advantage enjoyed by intuitives in most academic fields... both high scholastic aptitude and interest are found most often among intuitives" (p. 137). While sensing and intuition can be related to achievement, the Myers and McCaulley study (1985) suggests it is not known to what extent this theory generalizes to children.

Studies indicate that achievement increases when the learning style of the student matches the instructional style of the teacher (Hudson, 1970; Saracho \& Dayton, 1980). If intuitives are to have the apparent advantage in most academic fields and demonstrate scholastic aptitude and interest over sensors, then one must question: Is there a significant difference in how sensing students perceive their environment when placed with intuitive teachers verses how intuitive students perceive their environment when placed with intuitive teachers? Learning style preferences impact learning; however, the student's perception of his/her learning environment is often overlooked.

Perception and the Classroom Environment

The student's perception of his or her classroom environment is often a neglected piece of information when diagnosis and prescription is rendered particularly at the elementary level (Weinstein, 1981). The learning environment not only facilitates or inhibits learning, but it is related to the energy level of the student to perform tasks (Clark, 1992).

According to Fraser and O'Brien (1985), much research has been conducted at the secondary level to investigate perceptions of the classroom environment; but, a "limited number of studies have been conducted at the elementary school level" (p. 586). According to Fraser and Fisher (1982), most research at the secondary level involved linking student's perception of the classroom environment to student achievement. They conducted a study involving 2,305 Australian students from one hundred classes. The research was designed to investigate the association between perceptions and student outcomes in areas of inquiry skills, understanding the nature of science, and attitudes. Perceptions were measured using the My Class Inventory dimensions of satisfaction, competitiveness, friction, difficulty, and cohesiveness.

The unit of statistical analysis used for this study was the class mean. Intelligence quotients were controlled in the analyses. Analyses, both simple and multiple, consistently indicated significant relations between student outcomes and dimensions of satisfaction, competitiveness, friction, difficulty, and cohesiveness. This research gave evidence to support a relationship between classroom environment dimensions and student outcomes when student characteristics and intelligence quotients were controlled.

In a meta analysis of twelve studies, Haertel, Walberg, and Haertel (1981) investigated environment-outcome relationships involving 17,805 secondary students in four nations. The intent of this study was to provide practical ways classrooms might be changed to improve student learning. Their research findings suggest that learning is consistently as well as positively related to the variable of satisfaction. The variable of friction was negatively related. Although these research studies are encouraging, more studies need to be conducted at the elementary level.

Boulanger (1980) investigated the association between reasoning outcome and environment perception with twenty-seven classes of fourth through eighth grade students in metropolitan Chicago. Boulanger used the My Class Inventory as the perception instrument. The results of the study found the correlation between reasoning outcome and environment perception to be statistically significant. Reasoning is an instructional strategy enjoyed by intuitives.

Talmage and Walberg (1978) examined the classroom environment as it related to reading achievement scores with elementary age students. The My Class Inventory was administered to 1,600 first through sixth grade students, in sixty classes following a reading program in Illinois. The results of this study found that greater classroom competition was associated with lower reading achievement scores. One study conducted at the elementary level with 758 third graders using the My Classroom Inventory (MCI) found associations between classroom environment and achievement measures to be strong. Generally, a link has been established between classroom environment and student achievement; but, further
studies need to focus on the student's perception of the classroom environment at the elementary level.

Fraser and O'Brien (1985) investigated the relationship between elementary school classroom environment and student achievement. Word knowledge and comprehension were the achievement measures under investigation. Environmental scales were satisfaction, competitiveness, friction, difficulty, and cohesiveness. Correlations of the class mean were statistically significant ( $p<.01$ ) for both word knowledge and comprehension. The outcomes for all environment scales were significant except for competitiveness. The multiple correlation between an outcome measure and the five environment variables was .88 for word knowledge and .85 for comprehension. The results indicate that performance on both word knowledge and comprehension measures were greater in classroom environments where there was a greater degree of satisfaction, less friction, less difficulty and less cohesiveness.

Generally, the findings in this study replicates the research conducted at the secondary level when associations between elementary school classroom environment and student achievement are studied. However, further research is necessary before results can be considered conclusive; but, a strong association can be made between achievement measures and dimensions of satisfaction, friction, competitiveness, cohesiveness, and difficulty.

## Summary

Educators who want to educate the "whole" child recognize that non-cognitive factors exist affecting the learning environment. These factors play a role in
establishing a satisfying educational environment for the individual student. Educators need to search for ways to provide the most appropriate instruction and learning environment possible for the students. One such way is profiling a child's personality and preferences for instructional style in order to understand and educate the "whole" child. Researchers have investigated preferences of instructional style and academic achievement, in addition to perception of the classroom and achievement; but, few studies have addressed the relationship between preferences and perception. Further attention needs to be given to the student and teacher relationship as they exist in the classroom, particularly for those who have a heightened ability to perceive and process information from their environment.

## CHAPTER III

## METHODOLOGY

Studies have been conducted exploring the interaction of student/teacher preferences for learning and academics (Davis \& Frank, 1979; Farr, 1971; ; Packer \& Bain, 1978; Saracho \& Spodek, 1981; Trautman, 1979). Other studies have explored the relationship between student perception of the environment and achievement (Boulanger, 1980; Fraser \& Fisher, 1982; Haertel, Walberg, \& Haertel, 1981; Talmage \& Walberg, 1978). Much research has been conducted at the secondary level to investigate perceptions of the classroom environment, but limited studies have been done with elementary students. Too often, the students' perception of their environment is overlooked when diagnosis and prescription is rendered at the elementary level (Weinstein, 1981). Further studies need to be conducted to determine if a relationship exists between groups of gifted students placed with teachers of similar or dissimilar style and the gifted students' perception of the classroom environment. Therefore, the hypothesis investigated in this present study states that no difference in perceptions of the classroom environment exists between groups of students who have preference styles similar to their teacher's and groups of students who have preference styles dissimilar to their teacher's style.

## Subjects

The subjects were a sample of third through fifth grade intellectually gifted
students $(N=77)$. Eligible students were those defined as gifted who attend an elementary school of 1000 in a large suburban public school in Oklahoma. Subjects were identified as gifted by the district policy and placed in a special program with a score at or above the $\mathbf{9 7 \%}$ on a nationally standardized test of intellectual ability (either the Otis Lennon School Abilities Test and/or Weschler Scale of Intelligence Revised). These seventy-seven students were invited to participate after approval was obtained from the OSU Institutional Review Board and the local school system. (See Appendix A and B). All seventy-seven students invited to participate in the study were white and were generally middle or upper middle class, socioeconomically.

Veteran teachers ( $\mathbf{N}=4$ ) all female with an average age of forty-two, were invited to participate in the study. The years of classroom teaching experience for these veteran teachers was an average of thirteen years. They taught those seventy-seven elementary gifted students who were invited to participate in the study.

Instruments

For the purpose of this study, a measure of preferred instructional style was administered to participating students and teachers. A measure of student perception of the classroom environment was completed by each participating student.

The Myers Briggs Type Indicator (MBTI) was the instrument used to determine preference style for the teachers involved in the study. The Myers Briggs Type Indicator is a 166 item paper and pencil assessment which requires adults to
determine preferences for extraversion or introversion, sensing or intuition, thinking or feeling and judging or perceiving. Scores were tabulated and preferences were determined. Construct validity suggest MBTI measures important dimensions of personality which are similar to those postulated by Jung (Carolyn, 1977). The MBTI relates to large numbers of variables: personality, ability, interest, value, and performance (Mendelsohn, 1970). Carolyn (1977) indicates that though stability of preference style increases with age, stability does exist.

The Murphy Meisgeier Type Indicator for Children (MMTIC) was administered to the elementary students. This instrument also determines preferences for extraversion or introversion, sensing or intuition, thinking or feeling, and judging or perceiving. Additionally, this instrument provides a U-band when extreme preferences are not indicated. It is believed that psychological preference is developmental and some students may not have fully developed their preference. The instrument is a seventy item, multiple choice assessment requiring students to identify with one of two statements.

My Class Inventory - Short Form (MCI) (see Appendix C) was administered to students to measure their perception of the classroom environment. The MCl has been adapted for elementary age students from the Learning Environment Inventory (Fraser, Anderson, \& Walberg, 1982), a scale developed to assess the psychosocial environment at the high school level. To accommodate younger children, the MCl was adapted in the following ways:

1. The MCl scales were reduced to five (satisfaction, friction, competitiveness, difficulty, and cohesiveness) from the original fifteen.
2. Wording for the items was simplified to enhance readability.
3. Finally, responses are entered directly on the questionnaire in the format of yes or no rather than transferring response to a separate answer sheet.

The MCl , short form was validated with a sample of 758 third graders. Students were selected from thirty-two classes in eight schools. Internal consistency on the five scales ranged from .58 to .81 ( $p<.001$ ). These data support the use of MCl with elementary school students when conducting studies involving associations between classroom environment and student learning. It is particularly illuminating when exploring differences between students' and teachers' perceptions of actual and preferred environments (Fraser \& O'Brien, 1985).

## Procedures

To assure the protection of human subjects, the Oklahoma State University Institutional Review Board (IRB) and the local school district reviewed and approved the proposal. Students were then administered the MMTIC and MCI. All students were tested on the same day. All seventy-seven students were in attendance on the testing day, so no retesting was necessary. Teachers of these students were given the MBTI.

All instruments (MBTI, MMTIC, and MCI) were administered by the researcher to assure standardization. Students were instructed when taking both the MMTIC and MCl to choose the answer that was most descriptive of them. They were assured there were no wrong answers. Students were advised that the purpose was to find out their preferences. Subjects were instructed to respond honestly. Neither parents nor teachers would read their answers. Subject responses were coded to assure anonymity. Testing time for students was approximately forty-five
minutes for completing both instruments. Teachers completed the MBTI in less than an hour.
Design

The purpose of this descriptive study was to determine what effect teacher instructional style had on gifted students' perception of the classroom environment. There were three style combinations of major concern: Those students who were placed in classrooms with teachers of a similar style and those students who were placed in classrooms with teachers of a dissimilar style and those students with an undetermined preference. The independent variables were similarity groups and grade level. Similarity groups were comprised of three levels. Students were measured on the MMTIC to place them in sensor, undifferentiated or intuitive groups. The similarity groups were (1) intuitive teacher and sensing students, (2) intuitive teacher and undifferentiated students, and (3) intuitive teacher and intuitive students. Students were in the third, fourth, or fifth grade. The dependent variable was the students' perception of the classroom environment as measured by the My Class Inventory. The My Class Inventory (MCI) yielded five scores. Each student's response was evaluated and was assessed using a score of satisfaction, friction, competitiveness, difficulty, and cohesiveness.

## Hypothesis

Null Hypothesis: It is hypothesized that no difference in perceptions of the classroom environment exists between groups of students who have a preference
style similar to their teachers and groups of students who have a preference style dissimilar to their teachers.

## CHAPTER IV

## RESULTS

The purpose of this study was to determine if there was a difference in the perception of the classroom environment between groups of students who are gifted and placed with teachers of similar preference style and students who are gifted and placed with teachers of dissimilar preference style. The four teachers were administered the MBTI to discover which type of classroom the students were experiencing. Scores indicated the following: all were found to prefer an intuitive instructional style. The third grade teacher was determined to be an ENTP. The fourth grade teacher was an ENFP. The two fifth grade teachers were INTP and ENFJ. There were seventy-seven students nested in three groups according to their preference for learning new information as measured by the MMTIC: dissimilar from teacher in preference style (S) students in the intuitive teacher's classroom, undifferentiated (U) students in the intuitive teacher's classroom and similar to the teacher in preference style (N) students placed in the intuitive teacher's classroom. Those students who scores were not strong enough to determine a preference were placed in the U group or U -band. The U -band is designated for those students who have not yet established a strong preference toward one style or the other. Subjects were nested in grade level third, fourth, and fifth to examine any developmental differences. The data were analyzed using an analysis of variance. Descriptive data are reported.

## Descriptive Statistics

Students were given the MMTIC and instructed to choose the response that was most like them. They were further instructed that there were no right or wrong answers and that neither their parents nor teachers would be reading the responses. Table I demonstrates the frequency of style preferences for students who were given the MMTIC according to the style preference of the teacher. Expectations would be that elementary students would be predominately extraverted. Populations of gifted students would be expected to be intuitives and perceivers. The results of the MMTIC show students and teachers were similar not only on the Sensing (S) and Intuitive scale (N) but on the other dimensions of Extraversion (E) or Introversion (I), Thinking (T) or Feeling (F), and Judging (J) or Perceiving (P). Results of the chi square analyses indicate that only the judging and perceiving scale was significant at the .05 level.

TABLE I
MMTIC PREFERENCES

| Teacher | Undifferentiated | Extravert/Introvert |
| :---: | :---: | :---: |
| 3rd grade ENTP | 4 |  |
| 4th grade ENFP | 8 | 17 |
| 5th grade INTP | 4 | 12 |
| 5th grade ENFJ | 8 | 8 |

$X^{2} .05, \mathrm{df}=3$, is 5.973
n.s. > . 05

TABLE I (Continued)

| Teacher | Undifferentiated | Sensing/Intuitive |
| :---: | :---: | :---: |
| 3rd grade ENTP | 5 | 16 |
| 4th grade ENFP | 3 | 17 |
| 5th grade INTP | 4 | 16 |
| 5th grade ENFJ | 3 | 13 |
|  |  | $\begin{aligned} & X^{2} .05, \mathrm{df}-3, \text { is } .515 \\ & \text { n.s. }>.05 \end{aligned}$ |
| Teacher | Undifferentiated | Thinking/Feeling |
| 3rd grade ENTP | 2 | 19 |
| 4th grade ENFP | 1 | 19 |
| 5th grade INTP | 1 | 19 |
| 5th grade ENFJ | 2 | 14 |
|  |  | $\begin{aligned} & X^{2} .05, \text { df } 3 \text { is } 1.015 \\ & \text { n.s. }>.05 \end{aligned}$ |
| Teacher | Undifferentiated | Judging/Perceiving |
| 3rd grade ENTP | 2 | 19 |
| 4th grade ENFP | 0 | 20 |
| 5 th grade INTP | 0 | 20 |
| 5th grade ENFJ | 4 | 12 |

$x^{2} .05, \mathrm{df} 3$, is 10.06
significant, $\mathrm{p} \leq .05$

The results of the MBTI determined the third grade teacher to be an ENTP.
Eleven (52\%) of her students showed preference toward extraversion and intuition
and ten $(48 \%)$ did not. None of her students showed a preference for the thinking style. Overwhelmingly these students preferred feeling (90\%). All but four students preferred perceiving ( $80 \%$ ) over judging ( $10 \%$ ). The Thinking ( $0 \%$ ) or Feeling ( $90 \%$ ) preference was the dimension of greatest difference here. For third grade, the groups included five ( $24 \%$ ) students dissimilar from the teacher in type preference (S), five ( $\mathbf{2 4 \%}$ ) in the $U$ group, and eleven (52\%) in the group similar to the instructional preference of the teacher (N).

The fourth grade teacher was an ENFP. Nine students (45\%) were extraverts and eleven ( $55 \%$ ) were not. Of these three, ( $15 \%$ ) were introverts and eight ( $40 \%$ ) were in the U-band. Fifteen students (75\%) preferred intuition over sensing (10\%). A majority of her students showed the same preference as the teacher for both feeling ( $90 \%$ ) and perceiving ( $80 \%$ ). In fourth grade there were two $(10 \%)$ in the group whose preference was dissimilar from the teacher, three (15\%) in the $U$ group, and fifteen ( $\mathbf{7 5 \%}$ ) in the group similar in instructional preference to the teacher.

Two teachers were involved in the study at the fifth grade level. One fifth grade teacher was an INTP. Six (30\%) of her students preferred introversion; but, fourteen ( $70 \%$ ) did not. Ten (50\%) preferred extraversion while four (20\%) were undifferentiated. Thirteen students ( $65 \%$ ) showed a preference for intuition and seven $(35 \%)$ did not. Only four students $(20 \%)$ had a preference similar to the teacher toward thinking. Seventeen ( $85 \%$ ) of the students preferred perceiving. In this fifth grade class three students (15\%) were dissimilar from the teacher's preference type, four ( $20 \%$ ) were in the $U$ group, and thirteen ( $65 \%$ ) had a preference similar to the teacher.

In the other fifth grade class the teacher was determined to score as ENFJ. Six ( $\mathbf{3 7} \%$ ) of her students had the same preference for extraversion. Two (13\%) were introverts and eight (50\%) were undifferentiated. Six (37\%) preferred intuition as she did, while seven (44\%) preferred sensing and three ( $19 \%$ ) were undifferentiated. Ten (63\%) preferred feeling and four ( $\mathbf{2 5 \%}$ ) preferred thinking. Two (12\%) were undifferentiated. Only two (12\%) were found to be like her and prefer judging while ten ( $63 \%$ ) were perceivers and four ( $25 \%$ ) were undifferentiated. Seven students ( $44 \%$ ) were found to have a dissimilar style than the teacher. Three students (19\%) were in the U group. Six students ( $37 \%$ ) were found to be similar in preference style to their teacher.

The teachers were all intuitives; however, two were determined to be NF while the other two were NT. By examining the sensing and intuitive style with the thinking and feeling style, the combinations can offer characteristics of temperament. Teachers with NF combinations preference may be characterized as facilitators, stimulators and creators/originators. Teachers with NT preferences are intellectual challengers, inquirers and theoreticians. The NF teachers as learners may be characterized as curious, insightful, and imaginative. The NT teachers may, as learners, be logical, intellectual, and knowledge oriented. As NF teachers their instructional style would stress self expression, imagination, divergent thinking, and creative-artistic expression. As NT teachers their instructional style would stress information processing, research, inductive reasoning, written reports and problem solving.

The following descriptive data were gathered on the MCI. The dependent variable (MCI) yielded scores on five scales (satisfaction, friction, competitiveness,
difficulty, and cohesiveness) ranging from five to twenty-two. A high score on the satisfaction scale indicates a higher degree of satisfaction for the classroom environment. Under ideal conditions, the classroom environment would be composed of a high degree of satisfaction and cohesiveness and low friction. The classroom should be void of excessive competitiveness and difficulty (Fraser \& O'Brien, 1985). Table II shows the frequency of scores on all five scales of the MCl .

TABLE II
FREQUENCY OF SCORES ON THE FIVE MCI SCALES

| Scores | Satisfaction | Friction | Competitiveness | Difficulty | Cohesiveness |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 0 | 26 | 16 |
| 5 | 5 | 6 | 0 | 0 | 1 |
| 6 | 0 | 0 | 13 | 18 | 18 |
| 7 | 4 | 19 | 0 | 0 | 1 |
| 8 | 0 | 0 | 9 | 27 | 14 |
| 9 | 11 | 23 | 0 | 1 | 1 |
| 10 | 0 | 0 | 20 | 4 | 11 |
| 11 | 19 | 14 | 21 | 1 | 14 |
| 13 | 15 | 7 | 13 | 0 | 1 |
| 15 | 22 | 7 | 1 | 0 | 0 |
| 22 | 1 | 1 |  |  |  |

The most frequent score on the satisfaction scale was fifteen which indicates students gave high marks when perceiving the classroom environment. The mode of the friction and competitiveness scores was nine and thirteen,
respectively, which showed that most students did not feel excessive friction or competitiveness occurred in the classroom. The difficulty scale had a mode of nine. Many of the subjects did not perceive their classroom as being difficult. The cohesive scores were evenly dispersed above and below the mean with the mode being seven.

For the seventy-seven cases, the grand mean on the satisfaction score was 11.792 with a standard deviation of 3.188 . Eleven was the median score for the four classrooms involved in the study. The mode was fifteen. Although the intent of the study was to focus on the single dependent variable, satisfaction, Table III shows the measures of central tendency and the standard deviation for scores on the five MCl scales.

TABLE III
THE MEASURES OF CENTRAL TENDENCY FOR THE MCI

|  | Mean | Median | Mode | SD |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
| Satisfaction | 11.792 | 11 | 15 | 3.188 |
| Friction | 9.636 | 9 | 9 | 3.098 |
| Competitiveness | 11.454 | 11 | 13 | 2.904 |
| Difficulty | 7.350 | 7 | 9 | 2.024 |
| Cohesiveness | 8.753 | 9 | 7 | 2.898 |

An Analysis of Variance was performed on the independent variable grade level
and dependent variable satisfaction, friction, competitiveness, difficulty, and cohesiveness to determine if differences exist. The results of the ANOVA are found in Table IV. The ANOVA revealed a difference did exist. A Scheffe' post hoc test was then performed to determine where the difference lies. The result of the Scheffe' revealed that the difference was in the satisfaction scale. It was significant at the .05 level.

TABLE IV
ANOVA SUMMARY TABLES OF MCI SCALES WITH GRADE LEVELS

| Satisfaction | SS | df | MS | F |
| :--- | :---: | :---: | :---: | :---: |
| Between | 155.835 | 3 | 51.945 | 6.147 |
| Within | 616.777 | 73 | 8.449 |  |
| Total | 772.612 |  |  |  |
| significant $p \leq .05$ |  |  |  |  |
| Friction | SS | df | MS | F |
|  |  |  |  |  |

TABLE IV (Continued)

| Competitiveness | SS | df | MS | F |
| :---: | :---: | :---: | :---: | :---: |
| Between | 17.34 | 3 | 5.780 | . 676 |
| Within | 623.712 | 73 | 8.544 |  |
| Total | 641.052 |  |  |  |
| n.s. p > . 05 |  |  |  |  |
| Difficulty | SS | df | MS | F |
| Between | 30.942 | 3 | 10.314 | 2.683 |
| Within | $280.539$ | 73 | 3.843 |  |
|  |  |  |  |  |
| n.s. p > . 05 |  |  |  |  |
| Cohesiveness | SS | df | MS | F |
| Between | 64.023 | 3 | 21.341 | 2.712 |
| Within | 574.218 | 73 | 7.866 |  |
| Total | 638.241 |  |  |  |

The mean for scores on the satisfaction scale were 11.941 for the group dissimilar (S) from the teacher, 13.200 for the U group, and 11.266 for the group similar to the teacher ( N ). The measures of central tendencies were examined for each group. Table V shows the measures of central tendencies for the satisfaction scale on the MCI. The students' mean scores on the satisfaction scale increased with age. Fourth and fifth graders' satisfaction scores were higher than third
graders. There is a possibility that developmental differences exist between third graders and fourth and fifth graders.

Table VI shows the results of an ANOVA which was run to determine if differences exist between grade levels third, fourth, and fifth. Fifth grade scores were treated as one group. Differences between grades three and four were significant at the .05 level.

TABLE V
SATISFACTION SCORES BY GRADE LEVEL ON MCI

|  | Mean | Median | Mode |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| 3rd | 9.6 | 11 | 11 |
| 4th | 11.80 | 11 | 11 |
| $5-1$ | 13.40 | 13 | 15 |
| $5-2$ | 12.50 | 13 | 15 |

TABLE VI
ANOVA SUMMARY TABLE OF DIFFERENCES BETWEEN GRADE LEVELS

| Third/Fourth | SS | df | MS | F |
| :--- | ---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Between | 50.010 | 1 | 50.010 | 4.688 |
| Within | 416.038 | 39 | 10.667 |  |
| Total | 466.048 |  |  |  |

significant $\mathbf{p} \leq .05$

TABLE VI (Continued)

| Fourth/Fifth | SS | df | MS | F |
| :--- | ---: | ---: | ---: | ---: |
| Between 25.997 2 12.998 1.624 <br> Within 432.038 54 8.000  <br> Total 458.035    |  |  |  |  |
| n.s. p > .05 |  |  |  |  |
| Fifth-one/Fifth-two | SS | df | MS | F |
| Between <br> Within <br> Total | 200.800 | 34 | 5.905 | 1.219 |

n.s. p. > . 05

The Mean Scores on the Five MCI Scales for Dissimilar (S), U group (U), and Similar (N) are shown in Table VII.

The intuitives are similar to their teachers in preference type. The sensors are dissimilar. Preference type cannot be established for the U group. A one-way Analysis of Variance was performed on the results of the satisfaction scores on the MCI. Table VIII provides the one-way Analysis of Variance summary table. The F was not significant at the .05 level.

## Hypothesis

Hypothesis: No difference in perceptions of the classroom environment exists between groups of students who have preference style similar to their teachers'
instructional style and groups of students who have preference styles dissimilar to their teachers. A one-way analysis of variance was performed for the variable of preference style from the MMTIC with the satisfaction scale on the MCl as the dependent variable.

TABLE VII

MEAN SCORES ON THE FIVE MCI SCALES
FOR S, U, AND N GROUPS

|  | Sat.(1) | Fri.(2) | Comp.(3) | Dif.(4) | Coh.(5) |
| :--- | ---: | ---: | ---: | ---: | :--- |
|  |  |  |  |  |  |
| Dissimilar (S) | 11.941 | 8.411 | 10.882 | 7.000 | 9.058 |
| Undifferentiated (U) | 13.200 | 11.600 | 12.266 | 7.333 | 8.866 |
| Similar (N) | 11.266 | 9.444 | 11.400 | 7.355 | 8.600 |

(1) Satisfaction
(2) Friction
(3) Competitiveness
(4) Difficulty
(5) Cohesiveness

TABLE VIII
ANOVA SUMMARY TABLE OF SATISFACTION SCORES

| Source | SS | df | MS | F |
| :--- | ---: | :---: | ---: | :---: |
| Between | 42.534 | 2 | 21.267 | 2.155 |
| Within | 730.084 | 74 | 9.866 |  |
| Total | 772.618 |  |  |  |

n.s.p>. 05

An analysis of variance was used to determine if there was a difference among the means of these 3 groups. The ANOVA revealed no difference in perceptions of the classroom environment between groups of students who have preference styles similar to their teachers and group of students who have preference styles dissimilar to their teacher.

## Preference

Preference for a particular style was noted as a point of interest. With seventyseven cases reporting, only seventeen ( $22 \%$ ) were dissimilar (S) whereas, forty-five ( $58 \%$ ) demonstrated their preference for intuition and fifteen (19\%) were undetermined.

## CHAPTER V

## CONCLUSIONS

## Discussion

While this study cannot support that if gifted students are grouped with teachers of similar or dissimilar style it will result in the students perceiving their environment as more satisfactory, several observations should be noted. Factors to consider are maturation, and number of sensors.

According to the means of each grade level satisfaction scores on the MCl tend to increase with age. The maturation of the students particularly at the third grade level may warrant attention, particularly since differences between only grades three and four were found to be significant. Students may have read other elements into questions and statements. Students may not have been honest in reporting their true feelings. Students may have felt satisfied with the classroom environment because of similarities in style beyond the sensing and intuitive style.

Generalizations are greatly diminished by the low number of sensing students and the exclusiveness of all intuitive teachers. It should be noted that difficulty was encountered in obtaining sensing students for this study. Low numbers were experienced in the other style dimensions as well. The thinking and judging numbers were low. For the twenty-one students in the third grade section, no preference for the thinking style was found. The standard deviations on the MCl
scales were small which would indicate increasing the number would possibly yield significance.

Preference styles for students were clearly defined as N, F, and P leaving few students as T's and J's. Ironically the same was true for the four teachers of the gifted. This similarity in style beyond the S/N variable under investigation may have added to the feeling of satisfaction within the classroom environment for some students who were within the group placed with a teacher of dissimilar style.

Research supports the fact that intuitives have an apparent advantage in academic fields and interest (Myers \& Myers, 1980). Perhaps these students in this study not only have an apparent advantage as intuitives; but, may be high achievers as well. In Fourqurean, Meisgeier, and Swank's study (1988), high achievers preferred intuition and lower achievers preferred sensing. Since the intuitives who are similar to their teacher in style might be meeting with success academically, they may view their climate as satisfactory: They may equate satisfaction with academic success. Though sensors are usually lower achievers, these students may not be experiencing academic failure yet because their intelligence has not yet been challenged. Therefore, the sensors may view their classroom with satisfaction also because they are not yet struggling academically. If academics do not play a role in determining satisfaction perhaps the perceptual strengths of the students has an effect.

Teachers work to provide the opportunity for students to accent perceptual strengths (visual, auditory, and tactual). Teachers, particularly teachers of the gifted, may have made adjustment in instruction to accommodate all learners to such a degree that those students who may have felt dissimilar to their teacher's
style in a regular classroom environment feel accepted and satisfied in the self contained gifted environment. Therefore the effect of emphasizing the perceptual needs of the student and addressing those needs daily in classrooms of gifted children may have slanted the true perception.

## Further Studies

Few studies have been conducted at the elementary level. The age of the student played a greater role in understanding the questionnaire and the need for honest responses rather than teacher expected answers, particularly at the third grade level. Since this study did not identify, through the use of the MBTI, sensing teachers, it would be interesting to see if differences exist between sensing teachers who teach gifted and sensing and intuitive gifted students. Since this study yielded all intuitive teachers, it is unknown how gifted students, who appear to be predominately intuitive, would perceive the classroom environment if placed with sensor teachers. Similarly, if a large number of sensors could be identified in a population of identified gifted students and analyzed as to their perception of the classroom environment when placed with teachers of similar and dissimilar style then, generalizations may be forth coming. Therefore, further research need to be conducted at the elementary level to support placing students with teachers based on preference style to achieve a more satisfactory learning environment.

Perhaps investigating the perceptions of the classroom environment between groups of students who have preference styles similar to their teachers and groups of students who have preference styles dissimilar to their teachers need to be
replicated using different populations. The students identified in this study may have led to more undecisiveness.

The low number for sensing students or students (S) who have a dissimilar style from their teacher requires research with a larger sample of preference style. It is important to gather data using larger samples for all three groups; sensors, undetermined, and intuitives in order to make generalizations about their perception of the classroom environment.

Secondly, students in this study were all caucasian, without ethnic groups being represented. Further study with the inclusion of a multicultural population would add insight to elementary age students' perception of their classroom when placed with teachers of similar or dissimilar preference style.

## Summary

The students' perception of the classroom environment continues to merit attention. Many factors singularly or in combination may contribute to the student perceiving his classroom as satisfying. With the elementary age gifted child, factors such as maturation, achievement, perceptual strengths and rapport with the teacher may slant their true perception of a satisfying classroom environment. Since these students are placed at the elementary level and also identified gifted, some may be satisfied with the classroom environment because they have not yet met with academic failure. Elementary gifted teachers may already accommodate perceptual strengths; thus, students who are gifted and placed with teachers of dissimilar preference may not view their environment as unsatisfying because the teacher has accounted for his perceptual needs. Many students wish to establish a
bond with their teacher. This emotional element may mask a student's true perception of a satisfying classroom environment. While this study could not support that if gifted students are grouped with teachers of similar or dissimilar style it will result in the students perceiving their environment as satisfactory, further research should continue with regard to learning styles giving particular emphasis to the students' perception.

## REFERENCES

Austin, A. B., \& Draper, D. C. (1981). Peer relationships of the academically gifted: A review. Gifted Child Quarterly, 25, 129-133.

Bem, D. J., \& Allen, A. (1974). Predicting some of the people some of the time: The search for cross-situational consistencies in behavior, Psychological Review, 81, 506-520.

Boulanger, F. D. (1980). Relationship of an inservice program to student learning: Naturalistic documentation. Science Edition, 64, 349-355.

Cafferty, E. (1980). An analysis of student performance based upon the degree of match between the educational cognitive style of the student. Unpublished doctoral dissertation, University of Nebraska.

Clark, B. (1992). Growing up gifted. (4th ed.). New York: Merrill.
Carolyn, M. (1977). An assessment of the Myers-Briggs Type Indicator. Journal of Personality Assessment, 41, 461-473.

Davis, J. K., \& Frank, B. M. (1979). Learning and memory of field independentdependent individuals. Journal of Research Personality, 13, 469-479.

Dettmer, P. (1981). The effects of teacher personality type on classroom values and perceptions of gifted students. Research in Psychological Type, 3, 48-53.

Domino, G. (1970). Interactive effects of achievement orientation and teaching style on academic achievement. ACT Research Report, 39, 1-9.

Dorsel, T. (1975). Preference-success assumption in education. Journal of Educational Psychology, 67, 514-520.

Dunn, R. S. (1979). Learning--A matter of style. Educational Leadership, 36 (6), 430-432.

Ekstrom, R. B. (1976). Teacher aptitudes, knowledge attitudes and cognitive style as predictors of teacher behavior. Journal of Teacher Education, 27, 329-331.

Farr, B. J. (1971). Individual differences in learning: Predicting one's more effective learning modality. Unpublished doctoral dissertation, Catholic University of America.

Fourqurean, J., Meisgeier, C., \& Swank, P. (1988). The Murphy Meisgeier Type Indicator for Children: Exploring the link between psychological type preferences of children and academic achievement. Journal of Psychological Type, 16, 42-46.

Fourqurean, J., Meisgeier, C., Swank, P. \& Murphy, E. (1988). Investigating the relationship between academic ability \& type preference in children. Journal of Psychological Type, 16, 38-41.

Fraser, B. J., Anderson, G. L., \& Walberg, H. J. (1982). Assessment of learning environments: Manual for Learning Environment Inventory and My Class Inventory. Perth: Western Australian Institute of Technology.

Fraser, B. J., \& Fisher, D. L. (1982). Predicting students' outcomes from their perceptions of classroom psychosocial environment. American Educational Research Journal, 19, 498-518.

Fraser, B. J., \& O'Brien, P. (1985). Student and teacher perception of the environment of elementary school classrooms. The Elementary School Journal, 85, 568-579.

Freer, D. (1984 August). Match and mismatch: A teaching and learning problematic. Paper presented at the meeting of conference on thinking, Cambridge, MA. (ERIC Document Reproduction Service No. ED262 035).

Gregorc, A. F. (1979). Learning/teaching styles: Potent forces behind them. Educational Leadership, 36, 234-236.

Haertel, G. D., Walberg, H. J., \& Haertel, E. H. (1981). Socio-psychological environments and learning: A quantitative synthesis. British Educational Research Journal, 7, 27-36.

Hudson, R. (1970). Frames of mind, Penguin books: Harmonsworth.
Jung, C. G. (1923). Psychology types. New York: Harcourt Brace.
Karnes, F., \& Whorton, J. (1988). Attitudes of intellectually gifted youth toward school. Roeper Review, 10, 173-175.

Mamchur, C. (1982). Translating learning style theory into classroom practice: A way of increasing teacher effectiveness through the determination of individual learning styles. Unpublished doctoral dissertation, University of Simon Fraser, British Columbia, Canada.

McCalley, M. H., \& Natter, F. L. (1974). Psychological (Myers-Briggs) type differences in education. In F. L. Natter and S. A. Rollin (Eds.), The Governor's Task Force on Disruptive Youth; Phase II Report (Tallahassee, FL, 1974). Gainsville, FL: Center for Applications of Psychological Type.

McCarthy, B. F. (1981). The 4mat system: Teaching to learning styles with right/left mode techniques. Arlington Heights, llinois: Mark Anderson \& Associates.

Meisgeier, C., \& Murphy, E. A. (1987). The Murphy-Meisgeier Type Indicator for Children. Palo Alto, CA: Consulting Psychologists Press.

Mendelsohn, G. A. (1970). Review of the Myers-Briggs Type Indicator. In O.K. Buros (Ed.), Personality Tests and Reviews. (pp. 1126-1127). Highland Park, NJ: Gryphon Press.

Morris, L. W. (1979). Extraversion and Introversion. New York: Hemisphere Publishing Corp.

Myers, I. B. (1984). Introduction to type. Palo Alto, CA: Consulting Pschologist Press.

Myers, I. B., \& McCaulley, M. H. (1985). Manual: A guide to the development and use of the Myers-Briggs Type Indicator. Palo Alto, CA: Consulting Psychologists Press.

Myers, I. B., \& Myers, P. B. (1980). Gifts differing. Palo Alto, CA: Consulting Psychologists Press.

Packer, J., \& Bain, J. D. (1978). Cognitive style and teacher-student compatibility. Journal of Educational Psychology, 70, 864-871.

Reckinger, N. R. (1980 June). Joining hands: Using learning and teaching styles. Paper presented at the meeting of Alternative Schools, Bloomington, IN.

Renzulli, J. S. \& Reis, S. M. (1986). The enrichment triad/revolving door model: A school wide plan for the development of creative productivity. In J. S. Renzulli (Eds.), Systems and models for developing programs for the gifted and talented. (pp. 218-266). Mansfield Center, CN: Creative Learning Press, Inc.

Ross, A., \& Parker, M. (1980). Academic and social self concepts of the academically gifted. Exceptional Children, 47, 6-10.

Saracho, O. N., \& Dayton, C. M. (1980). Relationship of teachers' cognitive styles to pupils' academic achievement gains. Journal of Educational Psychology, 72, 544-547.

Saracho, O. N., \& Spodek, B. (1981). Teacher's cognitive styles and their educational implications. Educational Forum, 45, 153-159.

Satterly, D. J., \& Brimer, M. A. (1977). Cognitive styles and school learning. The British Journal of Educational Psychology, 41, 294-303.

Spiegel, J. F., Griggs, S. A., \& Petrie, D. (1988). Effects of matching and mismatching subjects' Jungian perception preference with empathy training instructions on ability to identify others' overt and covert feelings. Journal of Psychological Type, 16, 57-60.

Senate Bill 214 - State Board of Education. (1990). Oklahoma State Board of Education rules and regulations for gifted and talented., (1210.301-307). Oklahoma City, OK: State Department of Education.

Talmage, H., \& Walberg, H. J. (1978). Naturalistic decision-oriented evaluation of a district reading program. Journal of Reading Behavior, 10, 185-195.

Tannenbaum, A. J. (1983). Gifted children. New York: Macmillan.
Trautman, P. (1979). An investigation of the relationship between selected instructional techniques and identified cognitive stvie. Unpublished doctoral dissertation, St. John's University, New York.

Witkin, H. A., Goodenough, D. R., \& Karp, S. A. (1967). Stability of cognitive styles from children to young adulthood. Journal of Personality and Social Psychology, 7, 291-300.

Weinstein, R. S. (1981). Student perspectives on "achievement" in varied classroom environments. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles.

## APPENDIXES

## APPENDIX A

O.S.U. INSTITUTIONAL REVIEW BOARD APPROVAL

ORLAMOHA STATE UNIVERSITY
IMSTITUTIOUAL, REVTPH BOARD FOR HUMAN SUBJECTS RESEARCH
Proposal Title: Gifted Students' Perception of the Classroom Environment
When Placed with Teachers of Similar of Dissimilar Instructional Styles.
Principal Investigator: $\quad$ D. Montgomery/K. Bull/M. Sumner
Date: $\quad 2-14-92$

This application has been reviewed by the IRB and
Processed as: Exempt [X] Expedite [ ] Full Board Review [ ]
Renewal or Continuation $[1]$
Approval Status Recommended by Reviewer (s):
Approved $[X]$ with comments Deferred for Revision $[$ ]
Approved with Provision [ ] Disapproved | 1

Approval status subject to review by full Institutional Review Board at next meeting, and and 4 th Thursday of each month.

Comments. Modifications/Conditions for Approval or Reason for Deferral or Disapproval:

Students should be specifically told that they should not put their names on the questionaire (Murphy-Meisgeier Type Indicator) even though there is a name blank. If the classes are not grouped together, there should be no need for names.

Signature:


Date: $\qquad$

## APPENDIX B

LOCAL SCHOOL SYSTEM APPROVAL


To: Michelle Sumner
From: Cathy Burden, Ph.D.
Date: January 2, 1992

Your research proposal has been reviewed and the committee has approved the collection of research data from the students at West Elementary School. Please contact Mr. Worley to set up the actual logistics and make the necessary arrangements with the teachers in your building.

Remember that to conduct research we ask that you do not interrupt the curriculum any more than is necessary, and that you minimize the amount of time that you ask teachers to participate in the collection of your research data. This means that it might be important for you to take a prolessional or personal day so you can collect this data outside of your regular contract hours. Thank you for your attention to this matter.

Since the questionnaire that you are asking students to fill out is one that is very similar to others used in the district, it is not necessary that you obtain individual parent permission.

I look forward to reading the conclusions of your study. Good luck If there are any problems, please do not hesitate to call.

## CB:gle

## APPENDIX C

MY CLASS INVENTORY

My Class Inventory
(Student Actual Short Form)

## Directions:

This is not a test. The questions are to find out what you think your class is actually like.

Each sentence is meant to describe what your actual classroom is like. Draw a circle around

YES if you AGREE with the sentence.
NO if you DON'T AGREE with the sentence.
Please answer all questions. If you change your mind about an answer, just cross it out and circle the new answer.

Authors of My Class Inventory: Barry J. Fraser and Peter O'Brien
$\qquad$ Class $\qquad$


# VITA <br>  <br> MICHELLE DAWN SUMNER <br> Candidate for the Degree of <br> Master of Science 

Thesis: GIFTED STUDENTS' PERCEPTION OF THE CLASSROOM ENVIRONMENT WHEN PLACED WITH TEACHERS OF SIMILAR OR DISSIMILAR INSTRUCTIONAL STYLE

Major Field: Applied Behavioral Studies
Biographical:
Personal Data: Born in Sapulpa, Oklahoma, March 22, 1963, the daughter of William J. and Melrena Phillips.

Education: Graduated from Sapulpa High School, Sapulpa, Oklahoma, in May 1981, received Bachelor of Science Degree in Elementary Education from Oklahoma State University at Stillwater in December, 1984; completed requirements for the Master of Science degree at Oklahoma State University in May, 1992.

Professional Experience: Teacher, Gifted Coordinator, Jenks Public Schools, August, 1985 - Present.

