AN INVESTIGATION OF TEACHER PERSONALITY, BASED

ON THE MYERS-BRIGGS TYPE INDICATOR, AND

PREFERRED INSTRUCTIONAL STRATEGIES

A Thesis

by

MARY JO BRADFORD

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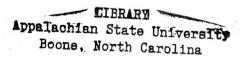
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ABSTRACT

AN INVESTIGATION OF TEACHER PERSONALITY, BASED

ON THE MYERS-BRIGGS TYPE INDICATOR, AND

PREFERRED INSTRUCTIONAL STRATEGIES. (August 1982)

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The purpose of this investigation was to ascertain what relationships might exist between the personalities of teachers and the instructional strategies they preferred to use in their classrooms.

The two main problems were:

1. There is no relationship between the personalities of teachers as typed by the Myers-Briggs Type Indicator (MBTI) and their preference for an instructional strategy: lecture with discussion, small group instruction, learning center, or individually-paced instruction.

2. There is no relationship between the personality types of teachers based on the Myers-Briggs Type Indicator (MBTI) and the subject area they most prefer to teach: math, science, language arts, or social studies.

The 38 subjects were graduate students in elementary education. Data concerning the subjects were collected

from two measures, the Myers-Briggs Type Indicator (MBTI) and a teacher questionnaire designed by the researcher. Results of the MBTI were not representative of all possible 16 personality types and the stated problems of the study could not be tested. The four questions of the questionnaire did, however, allow the researcher to look for relationships that might exist between personality type and various aspects of teaching.

Student freedom was shown to be a factor in how teachers prefer to teach and what they prefer to teach. Significant findings were found in relation to teacher personality type and the amount of student freedom associated with the preferred strategies and subject areas.

ACKNOWLEDGEMENTS

DEDICATION

To my loving parents, whose encouragement and support made this work possible.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

Education has proven to be a dynamic, ever-changing institution. The theories and philosophies produced out of great minds and research introduce new trends in an effort to better the educational process at an almost constant rate. In the past years, philosophies concerning the learner have been of main interest. While these ideas of learning are still fundamental, a new point of view has begun to emerge. The realm of educational thought has extended to include an acknowledgement of teacher personality differences as deserving attention.

In this era of philosophy focused on individual differences, awareness is the key to meeting student needs and insuring that learning occurs. Awareness of the abilities and limitations of each student is basic to prescribing learning experiences and materials that will prove beneficial. It seems apparent that the development of self-awareness in a teacher is also justly crucial. Without knowing one's own modes of action and preferences of thought, one cannot begin to analyze another's mind with understanding and efficiency. It is therefore assumed in this investigation that teacher personality attributes expressed in needs,

1

abilities, preferences, and limitations are as important as those of the students.

According to Clark and Yinger (1979), in every classroom there are a number of unique factors -- personalities, opportunities, and restraints. If each setting is so very different, teacher and pupil behaviors that seem effective and appropriate in one setting may not be so in another. The individual teacher is recognized here to be the one who decides what is appropriate in his/her classroom. Thus, Clark and Yinger (1979) stress the value of investigating how teachers "exercise judgment, make decisions, define appropriateness, and express their thoughts in action" (p. 232). It is, after all, assumed in the relatively new approaches of studying teacher behavior that what teachers do in their classrooms is affected or determined by what they think. Such research focuses upon the mental processes underlying, and therefore, controlling, teacher behaviors.

> The study of the thinking processes of teachers -- how they gather, organize, interpret, and evaluate information -- is expected to lead to understandings of the uniquely human processes that guide and determine their behavior (p. 231).

Process-product research, which is the type often conducted today to study teacher effectiveness, gathers data from both teacher behavior and resulting pupil achievement. Medley (1979) notes the earliest research to measure the effectiveness of teachers focused strictly on personality traits. Later, the teaching methods employed were thought to be the determinant of effectiveness. Over the years,

effectiveness has come to be viewed as the mastery of a repertoire of teacher competencies and skills which lead to pupil learning. In a time when an understanding of teacher effectiveness traits is vigorously sought, it is appropriate to consider both teacher and pupil. Educational theory can focus neither on pupil nor teacher as a separate factor; the effect of the teacher and the response of the pupil may well be considered as one.

STATEMENT OF THE PROBLEM

Today's teachers are presented with a large number of strategies of instruction from which they may choose. This investigation was conducted in order to ascertain what relationships might exist between the personalities of teachers and the teaching strategies they prefer to use. Is personality a reason for differing instructional preferences among teachers?

While the main problem is reflected in the title given this study, another problem exists in its construct. In comparing and analyzing the results of the two data collecting instruments used, the Myers-Briggs Type Inventory (MBTI) and a teacher questionnaire, the following problems were considered:

1. There is no relationship between the personality of teachers as typed by the Myers-Briggs Type Indicator (MBTI) and their preference for an instructional strategy: lecture with discussion,

small group instruction, learning center, or individually-paced instruction.

2. There is no relationship between the personality types of teachers based on the Myers-Briggs Type Indicator (MBTI) and the subject area they most prefer to teach: math, science, language arts, or social studies.

IMPORTANCE OF THE PROBLEM

The stated problem of this investigation, that of relating teacher personality to preferred instructional strategies, is important as a basis for contemplation in educational thought. In a recent study concerned with the effects of teacher personality in different types of classrooms, Morales (1975) discusses the findings of Getzel and Jackson in which they state that "the personality of the teacher is a significant variable in the classroom" (p. 7). In fact, teacher personality is recognized by some to be the most important variable of the classroom setting.

Good, Biddle, and Brophy (1975) point out that many studies have been centered on the schools rather than the individual teachers for analyzing the effects of education on students. It is the opinion of these writers that "individual teachers are more likely to show 'effectiveness' than individual schools" (Good et al., 1975, p. 7). Research must be aimed at the attributes of single teachers as well as groups of teachers.

Among the studies directed toward individual teacher behaviors there are those which refute and those which support the speculation that teachers influence their students' learning outcomes. Good et al. (1975) cite a number of investigations that suggest that teachers, along with the curricula and schools, do not make a measurable impact on students and student achievement. They report a series of studies initiated by Popham where he compared the learning gains of students taught by certified experienced teachers and the gains of those taught by individuals whose work demanded the knowledge and application of the skills involved in the subject taught but possessed no teacher training. His results showed no differences in student learning. Similar studies by Moody and Bausell and Dembo and Jennings (reported by Good et al., 1975) presented the same negative findings concerning the influence induced by teachers over their students. Elaborating on these studies, Good et al. (1975) point out that the data collecting methods incorporated for the investigations have been criticized by Glass and leave open to questioning whether or not the findings can be generalized for all classrooms.

A number of investigations also reported by Good et al. (1975) offer more positive conclusions concerning the effects of teachers on their pupils, indicating that teachers do make a difference. Most of these studies were reviewed by Rosenshine and Furst and concluded that teacher and teaching characteristics do affect student learning. Dunkin

and Biddle also reviewed such studies and reached conclusions similar to those of Rosenshie and Furst. Not only were these studies involved with the effects of teacher characteristics on student learning, but also with the effects of the teacher's behavior on the affective variables of students such as their attitudes toward themselves as learners and toward the teacher and the school. The findings of Kounin's research, later replicated by Brophy and Evertson, indicated that all teacher behaviors produce an effect on students (Good et al., 1975).

While many aspects of teacher behavior have been considered in the studies cited, this investigation is centered on possible teacher behaviors influenced by personality and reflected through instructional strategies. The importance of looking at teaching strategies and the implications for student learning is considered in many of the present educational views.

Dunn and Dunn (1979) speculate it is common knowledge among professional educators that children, as well as adults, differ greatly in learning capacities and learning styles. In other words, people learn in different ways through different methods and one method of teaching cannot successfully suffice for all students.

Kuchinskas (1979), after reviewing a great deal of the literature and studies concerned with teacher impact on student learning, contends that the teaching strategies and styles of the teacher are prominent aspects of education.

The greatest merit of this study is that it will contribute to the present bank of information recognizing the influences of teacher personality on the many aspects of educational theory and practice. Good et al. (1975) also concede the importance of study and research pertaining to teacher behaviors, teaching strategies, and the resulting impact on learning.

> We believe that research on teaching will pay off eventually in the identification of teacher behavior and learning arrangements that help students to achieve important objectives (p. 8).

PURPOSE OF THE STUDY

The purpose of this investigation was to determine what possible relationships exist between the personalities of primary grade teachers and their preferred instructional strategies. Personality type was determined by means of the Myers-Briggs Type Indicator. Preferred teaching strategies were assessed through a questionnaire constructed by the researcher. Comparison and analysis of the results of both instruments were used to obtain the desired information in order for this study to be conducted.

DEFINITION OF TERMS

Student Freedom

Student freedom refers to an allowance of freedom given to students so that they may be actively involved in their own learning. Students may be allowed to make choices in several areas: (1) determining topics of study;

(2) specifying objectives and goals; (3) choosing methods or procedures of study; (4) deciding on the instructional materials to use; (5) determining a pace of study; and (6) choosing methods of evaluation.

Instructional Strategy

The term instructional strategy refers to the method or technique employed by a teacher for the implementation of instruction in the classroom (Hess & Croft, 1972). Offered to teachers are a large number of teaching strategies from which to choose but, for the purpose of this study, only four are being considered. These four strategies, lecture with discussion, small group instruction, learning centers, and individually-paced instruction, are defined separately in this section.

Lecture with Discussion

The lecture method signifies a teacher-oriented type of instruction in which the teacher delivers an oral presentation of the desired information he/she intends for students' learning (Gilstrap & Martin, 1975). The teacher may engage in the lecture method to present new information, review subject content, create student interest in a topic, explain concepts, read or recite literary works, and explain and describe events or issues of relevance to the class (Saylor, Alexander & Lewis, 1981).

To supplement the verbal presentation, the teacher may choose to use visual or auditory aids such as the chalkboard,

transparencies, demonstration, scale models, films, slides, hand-out sheets, and maps. Such props serve as a focus of attention for the students, a point of reference should questions arise, a respite from the lecturer's constant verbalization, and as a concrete symbol of the otherwise abstract concepts and explanations covered (Hyman, 1974).

To allow for student participation, discussion is often incorporated into the lecture method at the elementary level (Saylor, Alexander & Lewis, 1981). To foster discussion and interaction, the lecturer poses questions or problems which require that students respond (Hyman, 1974).

Gilstrap and Martin (1975) point out that the planning and implementation of the lecture with discussion method is centered on the teacher. A very minimum of choice is awarded to the student. Even though participation through discussion is encouraged, it is initiated by and kept in the control of the teacher.

Small Group Instruction

This type of instruction is commonly executed in all subject areas in the elementary grades. An instructional mode engaged for the purpose of individualizing the curriculum, small groups allow for a more manageable cluster of pupils (Gilstrap & Martin, 1975).

Musgrave (1975) describes several kinds of groupings which are used in the classroom, each characterized by and implemented to meet a specific set of needs. Those

identified in this study are: achievement level groups, needed-skills groups, interest groups, and special-purpose groups.

An achievement level group is a formation of students whose ability levels have been assessed as the same or nearly the same. Once established as a group, the teacher can present subject content and learning materials on the level at which these pupils are able to perform so that, as a group, they can achieve mastery of the material.

The purpose of a needed-skills group is to cluster students who need to concentrate on the same skill areas. All group members work on basic skills for which they have not displayed proficiency.

Interest groups are formed on the basis of common student interests. Perhaps the most important characteristic of this type of group is that the students are allowed the freedom to group themselves according to their interests. It is the responsibility of each pupil to determine in which group he/she will work.

The aim of a special-purpose group is the accomplishment of some specified goal. There are three instructional special-purpose groups commonly employed in the elementary classroom. The first type, polar groups, are composed of students differing or opposite in some aspect of learning. The arrangement of polar groups allows for and encourages peer teaching. The second type of special-purpose grouping

is that of pairs, in which two students work together,
assisting and supporting one another in their efforts to
attain a goal. The third type, the discussion group, may be
established to discuss and review subject matter topics,
to share ideas and experiences related to a given topic, to
present personal interpretations of relevant literature,
or to share in current events.

The various types of groups discussed by Musgrave
(1975) indicate differing degrees of student freedom allowed.
Achievement level groups and needed-skills groups involve
instruction and student aid given by the teacher. Special-
purpose groups appear to focus more on peer teaching and
sharing of personal thoughts, rather than teacher-directed
activities. Interest groups allow students the greatest
amount of choice and freedom. Students determine the topics
of study and group themselves in order to work.

Learning Centers

A learning center is a designated area inside or outside
the classroom or school containing activities and materials
designed to guide students toward the acquisition of a
skill, an ability, or increased information (Daniels, 1973).
As a method of individualized instruction, the learning
center consists of multi-media and multi-level educational
materials targeted at the various learning aptitudes
apparent within a group of students (Gilstrap & Martin,1975).

A number of approaches may be taken in structuring a learning center. The approach is chosen to correspond with the purpose for which the center is created. The partial center approach is one in which the teacher assumes the responsibility for teaching the desired content and skills. The students then use the materials in the center for reinforcement of what the teacher has presented. The total center approach requires that the teacher merely introduce subject content. The students then work in a center where the majority of the subject matter is covered and related skills attained. In taking the curriculum area approach, a center is constructed solely around one area of the curriculum, such as reading or science. The unit study center is designed for the implementation of one entire unit of study on a specific topic. The chosen center approach allows for the students to choose the center in which they wish to work and use freely the center materials. Often, the students may choose the time that they wish to work in a center. With the assigned center approach, the teacher prescribes the learning center in which each student needs to work. These assignments are made according to a student's needs and abilities (Lewis, 1977).

A learning center is based on specific goals: (1) to aid the student in learning to think, work, and follow directions in an independent attitude; (2) to develop in the student the ability to follow a sequential procedure; (3) to aid in the development of self-discipline and independence

in decision making; (4) to encourage critical and creative thinking in the student; (5) to expand and enrich the student's knowledge; and (6) to enable the student to evaluate his/her own progress (Lewis, 1977).

These goals signify a generous amount of student freedom and choice inherent in the learning center approach. Lewis (1977) implies that independence in thinking, working, and making decisions is fostered through the many opportunities for students to participate in making choices concerning their own learning.

Individually-Paced Instruction

Individually-paced instruction is by nature and structure an effort to individualize the curriculum. The purpose and objectives of a unit of study are detailed for all pupils by the teacher and used for analysis of pupil progress and learning. Students, naturally performing at different levels and rates, are allowed to engage and proceed in the same study but at their own individual rates. With the use of this strategy in the classroom, it is not assumed that all students are alike and that all learning takes place at the same pace. Students plot the speed at which they are most comfortable and best able to work (Rudisill, 1972).

The teacher takes the initial step of planning the objectives in individually-paced instruction, but the students are provided the freedom they need to pace themselves.

Myers-Briggs Type Indicator (MBTI)

The MBTI is an instrument designed and constructed to measure or indicate the basic preferences one uses to look on and react to life. The test is a nonthreatening indicator of one's basic patterns of mental functioning (Myers, 1980). These patterns are the distinguishing characteristics between personality types. The MBTI points out the patterns of one's mental functioning and, thus, assigns a personality type.

Personality Type

This term refers to a classification which distinguishes people by categories of certain characteristics and ways of looking at life. The term in this study is drawn from the MBTI in which there are 16 categories or types. Those who are typed by the MBTI are done so on the basis of their expressed preferences for (1) directing their interests, focusing either inwardly or outwardly; (2) directing their attention and perception of life experiences; and (3) making judgments, preferring to concentrate on either the logical or personal aspects involved. These preferences are measured through the four scales given below:

Index	Preference Between
E-I	Extraversion - Introversion
S-N	Sensing - Intuition
T-F	Thinking - Feeling
J-P	Judgment - Perception

Lawrence (1979) emphasizes that most individuals are capable of calling upon and using both functions (E and I, S and N, T and F and J and P).

Extraversion - Introversion (E-I) Scale

This index is an indicator of one's attitudes or orientations toward life. The Extraversion - Introversion scale explains one's preferred manner of dealing with the world. In the extraverted attitude, one's attention flows outward to the world of people, objects, and events. The environment is the recipient of extraverted energies. The introverted attitude, conversely, is characterized by the flow of energies into the inner world. The focus of introverted attention is placed on private and personal thought with noticeably less action upon the environment.

The extravert uses both attitudes of extraversion and introversion, but prefers and is more comfortable functioning in the extraverted manner. The introvert acts in both the extraverted and introverted attitudes but prefers to function introvertedly.

Sensing - Intuition (S-N) Scale

Sensing and Intuition are two functions of perception. Lawrence (1979) defines sensing as a preference for perceiving aspects of the observable surroundings and events through the senses of body and mind. Intuition is the term used to describe a preference for perceiving through insight into possibilities and relationships.

Sensing types engage in both functions of sensing and intuition but prefer and better develop sensing. Intuitive types practice both sensing and intuition in the process of perceiving, but prefer and use more extensively intuition.

Thinking - Feeling (T-F) Scale

Thinking and feeling are the functions of judgment. Thinking refers to a preference for a logical decision-making process in which objective conclusions are the aim. Feeling is a judgmental process which involves making decisions on a personal, subjective basis.

The thinking type makes judgments by means of both thinking and feeling, but prefers using his/her powers of thinking. The feeling type in making judgments uses thinking and feeling but expresses a strong preference for feeling (Lawrence, 1979).

Judgment - Perception (J-P) Scale

The final index indicates one's attitudinal preference between the use of judgment and perception in dealing with the outer world.

The J type relies mainly on his/her preferred process of judging, either thinking or feeling, in dealing with the outer world. This type of individual lives "in a planned, decided, orderly way, wanting to regulate life and control it" (Myers, 1976, p. 6). The P type relies mainly on a process of perception, either sensing or intuition, in dealing with the outer world. This type of person lives

"in a flexible, spontaneous way, wanting to understand life and adapt to it" (Myers, 1976, p. 6).

ASSUMPTIONS AND LIMITATIONS

It is an assumption of this study that the MBTI is a valid and reliable measure for indicating attitudinal preferences and aspects of personality.

It is also assumed by the researcher that the responses submitted by the participants on both the MBTI and the questionnaire were given due consideration and, therefore, reveal actual preferences pertinent to the investigation. There was no evidence that deliberate misrepresentation was made on either instrument as care was taken to assure confidentiality.

The population of teachers participating in this study presents several limitations: (1) the population was a selection of graduate students of a North Carolina institution, Appalachian State University, and all were enrolled in field-based courses representing only the northwestern section of North Carolina; (2) most teachers involved in this study taught in the primary grades, kindergarten through grade three, with the exception of three (see Appendix A); and (3) the sample population was relatively small, the total number being 38.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

Only a few decades ago, schooling functioned with one generalized pattern for all. A single standard existed and dominated the program for all students. Every pupil was forced, or at least expected, to proceed through a specific set of assignments without any variance allowed for rate of achievement, goals to be attained, or mode of learning; and certainly, no need for variance in instructional techniques was observed (Esbensen, 1971). In the past few years, however, educational goals and needs have been routed in a different direction. Evidence clearly indicates that students possess different styles of learning (Musgrave, 1975) and therefore have differing needs which must be considered if learning is to occur. Since individual difference factors have redirected educational thought, the term that describes the newly emerged theory is individualized instruction.

While individualized instruction is a commonly used term, it is also rather loosely defined. Its mention may present slightly differing pictures to educators who employ it and have adapted its use to suit the needs and arrangements of their classrooms. Esbensen (1971, p. 208) supplies a sound, but not stifling, definition of the term.

18

> By individualized instruction is meant whatever
> arrangements make it possible for each student
> to be engaged at all times in learning those
> things that are of most value to himself, as an
> individual.

Burns (1973) explains that the basis on which individualized instruction is accepted as educationally desirable resides in the very nature of humankind.

> No two living organisms are alike. If this
> statement is true, and all evidence appears
> to support it, then basically we are led to
> the assumptions that:
> 1. No two learners achieve at the
>   same rate;
> 2. No two learners achieve using the
>   same study techniques;
> 3. No two learners solve problems in
>   exactly the same way;
> 4. No two learners possess the same
>   repertoire of behaviors;
> 5. No two learners possess the same
>   pattern of interests;
> 6. No two learners are motivated to
>   achieve to the same degree (pp. 25-26).

These six basic assumptions about the learner provide the foundation on which an individualized instructional program is built. Stahl and Anzalone (1970) acknowledge these assumptions and add that ". . . no one teaching method meets the varied needs of all children" (p. 23). Such statements justify the commitment made to the practice of individualized instruction today.

Ideally, individualized instruction is a tailor-made learning program for each individual student, based on personal needs and learner characteristics (Burns, 1973). Attempting to structure the learning program around student differences, an educator may consider the three levels or

variables of individualized instruction: the pace of instruction, the instructional materials, and the objectives of instruction (Esbensen, 1971). Consideration of these three levels has resulted in the design of a number of instructional strategies. Each of these strategies takes into account all three variables of individualized instruction; but some have placed emphasis on one more than the others. It is the point of emphasis and the amount of emphasis which differentiates the individualized programs (Good et al., 1975). Some instructional formats involve students being taught the same curriculum through the same methods, but progressing at different rates. Other programs consist of the same curriculum presented through different instructional materials. In still other systems, different curricula are offered so that each student may work toward the objectives specifically identified to correspond with his/her abilities and needs. Thus, the definition of individualized instruction in reality depends upon how it is put into operation within a classroom setting.

Instructional Strategies

The first individualized instructional plan acknowledged in and a feature of this study is that of small-group instruction. By incorporating intra-classroom grouping procedures, the teacher can better focus on individual pupils. Students are placed in different types of groups which serve usually to minimize student differences,

resulting in a more personal teacher-pupil situation (Musgrave, 1975).

Although learning is recognized as an individual affair, it most frequently occurs, according to Olmstead (1974, p. 86), "within a social context." He extends this statement by adding that the most effective learning situation is one which provides emotional support to students while they take part in learning activities planned specifically to meet their needs. Such conditions are best provided by an established small group of students. Whatever the reason underlying the formation of a group -- achievement level, shared interest, or similarly needed skills -- the group method operates on the premise that much learning which occurs in the classroom results from interaction between students and teachers.

The second type of individual learning program given attention in this study is the learning center: an environmental structure allowing students to practice independence in learning (Lewis, 1977). Glasser (1971) identifies the goal of the learning center approach:

> The Learning Center aims to provide a school
> framework within which the individual child
> may procure the guidance, climate and media
> to learn and find purpose and joy in learning.
> Opportunities are provided for the individual's
> learning needs and for creating and developing
> his interest (pp. 17-18).

Common to most learning center approaches, from the partial center approach to the assigned center method, is the opportunity and responsibility for students to make

some choices in their learning process. This freedom and responsibility, no matter how limited or how great, is often beneficial for students. Glasser (1971) contends that students will grow in their ability to assume responsibility for their learning if opportunities in which they may practice being responsible are provided.

The research findings of Jean Piaget seem to favor individualized instruction and the learning center concept. He maintains that children's learning takes place "in a series of developmental stages, in repeated encounters with concrete experiences and in exchanges with differing points of view" (Gilstrap & Martin, 1975, pp. 77-78). Relating the findings of Piaget to the classroom setting would require an environment which allows children to explore with concrete materials and interact with other children and the teacher. Such an environment appears repeatedly in English schools, where classroom materials have been organized into learning centers. These informal centers have been the basis and models on which the learning center methodology has been constructed in American schools (Gilstrap & Martin, 1975).

The third system for individualizing instruction recognized in this study is individually-paced. As the term implies, the variable most emphasized is the pace of the learner's achievement. Esbensen (1971) notes that this form of individualized instruction is probably the most widely used method to personalize the curriculum. He goes on to explain the basic mechanics of this approach in terms

of three variables of individualized instruction previously mentioned. Identical goals of instruction are determined by the teacher for all pupils within a given classroom. The teacher then delivers the subject content under study to all students through the same strategy and materials. Each student, however, is allowed to progress through the learning process at a comfortable rate, regulated by individual capabilities.

The final instructional strategy covered in this investigation is the lecture with discussion method. Lecture, alone, has been a method heatedly argued and generally not favored for use in elementary grades. To make lecturing a more effective teaching strategy, its use is combined with discussion techniques to promote student participation and interaction (Saylor et al., 1981).

It is generally agreed that lecture, as a totally oral presentation, has been abused as a teaching method (Saylor et al., 1981). Dunn and Dunn (1979) speculate that 90 percent of all instruction is conducted through lecture or lecture with discussion. Data they have collected on learning styles reveal that a small number, between 20 and 30 percent, of all school age children are auditory; that is, they learn best from what they hear. All other children learn best through one of the other senses or some combination. This discrepancy between learner style and teaching method seems to account for the large number of students who do not achieve as well as expected.

Gilstrap & Martin (1975) acknowledge the abuse and negative aspects associated with the lecture method, but contend that part of the weaknesses attributed to the strategy do not lie within the method itself. Some faults of the strategy are created by lecturers. The effectiveness of lecture depends on who employs it and the objectives and learning outcomes for which it is used. Lecture may prove a very beneficial and effective means of dispersing information in some situations; it may be quite useless and ineffective in others.

Teacher Personality: Implications for Teaching

Turner (1979) comments that it is a well-accepted fact among educators that both students and teachers vary. Students are different in "age, aptitude, degree of socialization, cognitive styles, preferred methods of learning, and numerous other ways" (p. 257). A great many differences can also be observed among teachers. In a given school, one teacher may be rigorous, demanding, and dominating; one may favor a student-centered, more humanistic policy; one may concentrate on small-group work; and so on. These notable variations in students and teachers are given high priority for consideration and contemplation in professional thought.

Examining present educational theories and widely-used instructional strategies reveals the extent to which individual learning characteristics are valued in curriculum

planning and implementation. Recognition of the student as the focal point appears to be valid since it is the student who receives the efforts of instruction. Of late, however, attention has been gradually turning toward the role of the teacher.

This investigation seeks to uncover what relationships might exist between particular MBTI personality types and preferences for certain teaching methods. Dunn and Dunn (1979) recognize that a strong preference for a particular method, which is one aspect of teaching style, may certainly be a trait of all teachers. They remark that teaching style may be deeply ingrained, but can be modified to allow for alteration to meet student needs. They imply that if the teachers understand why no one manner of teaching can work for all students, then they can and will strive to increase their repertoire of teaching skills.

Gregorc, cited in Morales (1975), notes a deficit of concern and literature given to teacher differences. He recognizes that a great deal of effort is made to provide for individual differences among students in the school setting but very little attention is awarded to teacher differences, which do indeed exist.

Kuchinskas (1979) observes that differences in teaching style and preferences for instructional modes are overlooked. She demonstrates how unfortunate this situation is by citing one observation repeatedly revealed in her classroom visits --

the teacher's style "influenced the learning environment
more than any other factor" (p. 270).

Exploring the possibilities of how and why teachers
and teaching methods do impact on student achievement --
either positively or negatively -- personality is receiving
increasing amounts of investigation. Evidence is cited to
both prove and disprove the importance of the teacher as a
major tool in producing student learning outcomes. If the
personality characteristics and resulting professional style
of the teacher are influential factors in the classroom,
then what impact does the teacher have? In what ways does
the teacher, through attributes of personality, affect
students? How does teacher personality determine a child's
learning abilities?

The MBTI and Teaching

Lawrence (1979) contends that the preferences or mental
habits that are developed by every individual, such as what
captures attention, what holds meaning and value, and how
to reach decisions, offer a great deal of information.
These patterned mental processes exist in combinations. The
four combinations or patterns recognized by Myers of
Extraversion - Introversion, Sensing - Intuition, Thinking -
Feeling, and Judging - Perceiving, serve as the basic
dimensions of measurement in the MBTI. A preference for one
function in each of these four indices makes up one's
personality type. Sixteen possible types are acknowledged
in the MBTI (Lawrence, 1979).

The Extraversion - Introversion index is an indicator of one's orientation to life -- one's attitude toward functioning in the inner and outer worlds. The extraverted person tends to focus outwardly to the world of people, objects, events, and action (Myers, 1980). Extraverts are typically characterized by "sociability, ease of communication, awareness of and reliance on the environment for stimulation and guidance, and an action-oriented, often impulsive way of meeting new events" (Lawrence, 1979, p. 7). Extraverts express a strong need for interaction with other people. Keirsey and Bates (1978) write, "Extraverts, with their need for sociability, appear to be energized, or 'tuned up' by people" (p. 14).

The introvert, on the other hand, is more concerned with the inner world of private and personal thoughts and ideas (Myers, 1980). Introverts express a need for and arrange their lives for times of quiet contemplation and social contacts with intimate and close friends. Those who prefer to function with introversion deem privacy of utmost importance -- their's is a world inwardly focused (Lawrence, 1979). Keirsey and Bates (1978) note that whereas an extravert extracts energy from interaction with others, an introvert's energies would be depleted by long exposure to such circumstances.

The Sensing - Intuition index acknowledges a person's preferred form of perception -- the manner in which one questions or turns attention to experiences. The sensing

person interacts with present situations by means of senses (Lawrence, 1979), taking notice and remembering details (Keirsey & Bates, 1978). This type is more comfortable and better able to cope with what is tangible and openly observable in an immediate situation. Characteristic of the sensing type are a trust in and a reliance on the customary and traditional approaches to a problem (Lawrence, 1979), with the need to act on facts (Keirsey & Bates, 1978).

Intuitive types look for relationships and possibilities that might exist and are more apt to act on theory rather than an already existing, immediate reality. A preference for intuition leads to interest in the unknown and untried and to creativity in tackling a new challenge (Lawrence, 1979). As Keirsey and Bates (1978) point out, for the intuitive, the possible is always exciting. "The future holds an attraction for the intuitive which the past and the actual do not" (p. 18).

Thinking and feeling are the two means by which people reach decisions and make judgments. Both are rational processes in which reasoning is used to arrive at conclusions.

The thinking individual attacks a problem with an objective attitude, weighing and analyzing facts to ensure impartiality and final justice. The aim of this type is an impersonal judgment based only on strictly factual information.

The feeling type prefers to examine a problem and reach a conclusion through feelings involved. Considered

are the standards and values associated with one's own peace of mind and those of all others affiliated with the situation or problem. There exists in the feeling type a sense of compassion and empathy and a desire for harmonious relationships (Lawrence, 1979).

The fourth index of Judgment and Perception refers to one's attitudinal preference for dealing with the outer world. According to Myers (1980), the judging type relies mostly on a judging process, either thinking or feeling in the outer world. A judging attitude is recognizable in those who tend to formulate decisions without an extensive search for related data (Lawrence, 1979). Keirsey and Bates (1980) add that judging individuals feel a sense of urgency until a decision is reached on a pending matter. Once that decision is made, they feel confident and satisfied with what has been decided. Judging types are quick to make judgments on a matter.

Perceptive individuals meet and deal with the outer world by means of either sensing or intuition, the preferred process of perception. Perceptive types are "receptive, understanding, and flexible" (Lawrence, 1979, p. 8) and do not rush into making judgments but rather, keep an open mind awaiting new relevant developments.

Brown and Richek (1969) note that some questions and misunderstanding have prevailed concerning extraverted and introverted individuals. In the Freudian point of view, introversion is thought to be psychologically unhealthy.

The Jungian theory, on which the MBTI is built, states that introversion is not an unhealthy trait. A balance of introversion and extraversion is achieved by most people through the development of a dominant process and an auxilary process.

Myers (1970) upholds that a governing force is needed to dominate and unify life. This need is satisfied by the natural development of a dominating process. Although each process is used, not all four are used nor favored equally. The dominant process is the most preferred process of each type -- either a perceptive process or a judging process. Overshadowing the other processes, the dominant force plays an important role in the shaping of personality.

In order to have a balance of attributes, an auxilary process supplements the dominant force. If a judging process dominates one's personality, the auxilary will be one of perception. The reverse also holds true. When a perceptive process is allowed dominance, a judging process falls as auxilary.

Not only does the auxilary force supplement the dominant process, it also creates the balance in extraverts and introverts in dealing with the outer and inner worlds. With the extravert, the dominant process is also extraverted and is easily observed and even rather conspicuous. Detection of the introvert's dominant force is, however, more complicated as the process is also introverted or aimed inward for privacy. Introverts function best reflecting on their inner

world and it is here that the dominant process is freely expressed. When an introverted individual must turn attention to the outer world, the second best auxilary process is the one exposed and on which he/she relies. An introvert whose dominant process is judging will, for example, appear to have as a dominating force a function of perception.

Realizing the importance of the dominant and auxilary processes is especially meaningful in understanding the introvert as well-balanced and well-adjusted. Ignoring the auxilary process portrays the introvert as unable to interact in the world. The auxilary process is responsible in the introverted type for supplying the extraversion needed for coping with the outer world.

While more important in understanding the introvert, the auxilary process is also necessary for the extravert. It has been established earlier that people must and do act in both introverted and extraverted directions. Even though one is preferred over the other, the auxilary process is the force that enables them to move back and forth in the inner and outer worlds (Myers, 1980).

The findings of research by Brown and Richek (1969) with the MBTI show that introverts perceive their world less positively than extraverts. In regard to teaching, however, introverts and extraverts "do not differ in the positiveness of their attitudes toward children" (p. 169).

Myers (1980) maintains that personality accounts for the very natural and predictable differences found in teaching and learning styles. She contends that in understanding type based on the MBTI, an explanation may be found as to why some students comprehend and respond positively to one teaching method and others do not. The sculpturing of mental habits and basic preferences takes place during childhood. Children, too, have definite and characteristic personality types. In Myers' views, type differences seem to suggest that individualized instruction is necessary in order to meet not only the various levels of abilities inherent in a group of children, but also the variation in mode of reception and learning.

Lawrence (1979) indicates the importance of attending to personality. He maintains that type affects the many aspects of teacher behavior.

One variable of teacher behavior affected by type is the way teachers carry out instructions (Lawrence, 1979). As an example, in teaching social studies, S types tend to focus on facts and concrete skills whereas N types prefer to focus on concepts and relationships. Another variable affected by type is preference of grade level. A larger number of S types than N types teach in the elementary and middle school grades. The distribution is about equal at the high school level.

Preference for subject area is also related to type differences. The T types prefer to teach math, N types

prefer theoretical courses, S types prefer practical courses, and F types favor art and guidance (Lawrence, 1979).

The need for structure seems to differ among the various types. For example, I_ _ J teachers seem to have the greatest need for structure; E _ _ J teachers need somewhat less classroom structure. The I _ _ P teachers need even less structure, and the E _ _ P types need least of all (Lawrence, 1979). Introverted teachers have a need for predictability and are less likely than extraverts to allow students to make decisions and choices in their study. Extraverted teachers tend to encourage activities that create unpredictability in the classroom. Sensing types are more prone than intuitive types to keep instruction teacher-centered and to limit student freedom.

The relationships teachers build and maintain with their individual students are affected by personality type. Lawrence (1979, p. 57) writes, "Teachers are more likely to understand and get along better with students of types similar to their own."

Recognizing these preferential differences among the numerous types of teachers, Lawrence (1979) remarks on how this awareness might be used. He states that expecting teachers to alter or change their particular needs for the structure of their working environments is unrealistic. He offers two alternatives: placing students so as to create a better match between teacher and learner styles and needs

for structure; or requesting that teachers learn techniques to vary but not change the classroom structure, so as not to overshadow their own needs.

Teacher effectiveness seems to be related to the degree of success a teacher demonstrates in implementing instruction. Personality has been discussed as a possible and probable factor, as individual traits produce differing teaching preferences and styles. But effectiveness may also be determined, or at least affected, by teacher morale or emotional status related to school and/or classroom place- ment, according to Morales (1975). Teacher personality is held by some to carry specific implications for professional satisfaction and loyalty.

Guba, as quoted in Morales (1975), states that job satisfaction basically depends on the quality of inter- action between an individual and the working environment. There must exist, for satisfaction, a functional equilibrium and harmony between the organizational objectives and the unique needs for personnel.

Studies conducted on job satisfaction indicate numerous ways in which people react when job conditions, demands, and objectives are antagonistic to personal needs. The high attrition rate is perhaps a result of such reactional modes. Morales (1975), concerned with teacher personality types based on the MBTI in his research, stresses that failure to match teacher personality and style with a congruent,

complimentary teaching environment may very well be one variable of cause. He further expresses that, for the sake of the students involved, teachers should be positioned in working environments according to their personalities and resulting needs.

Morales (1975) emphasizes the need to identify the personality types of teachers and the particular kind of teaching setting from which they will derive most satisfaction and success. He implies in this statement the advantages of "analyzing" teachers or prospective teachers and then prescribing job placement. Story (1972) elaborates on this idea in his research based on the MBTI. He notes that, as it generally is today, teacher placement is a matter of randomly and indiscriminately filling vacancies in the teaching field. He contends that each teaching candidate should be placed in the position best suited to personal interest and abilities. Handling placement in this manner would create a better balanced system in which the abilities of the teachers and the demands of the field are considered and effectively compromised. In such a system of teacher placement, Story (1972) states, "The goal is to obtain a teaching force at once more productive and more contented in their chosen profession (p. 2).

CHAPTER THREE

DESIGN OF THE STUDY

Subjects

The population for this study consisted of 38 teachers,
36 females and 2 males, enrolled in graduate studies at
Appalachian State University. All participants were members
of field-based courses conducted by professors affiliated
with the university. The groups were chosen because of the
high concentration of early childhood majors enrolled.

The teachers ranged from 22 to 38 years in age and had
from 2 to 20 years teaching experience. Appendix A shows
the population in terms of age, grade presently taught, and
years of teaching experience.

Instrumentation

There were two instruments used to collect information
for this investigation, the Myers-Briggs Type Indicator
(MBTI) and a questionnaire designed by the researcher for
the purposes of this study. To familiarize the readers with
these instruments, the two are separately discussed.

Myers-Briggs Type Indicator (MBTI). The MBTI, Form F, was
used to determine the various personality types of the
population. The measure consisted of 166 questions, each
providing a choice of answers. No answers were considered

right or wrong in analyzing the type results but were used to indicate preferences.

The majority of the questions, 115, instructed the subjects to choose the answers most closely describing how they usually feel and act. The remaining 51 questions directed the participants to choose one word out of a pair of words that was most appealing to them.

Questions included in the instrument distinguish a preference in each of four indices: Extraversion - Introversion (E-I), Sensing - Intuition (S-N), Thinking - Feeling (T-F), Judgment - Perception (J-P). One question is given for each index as an example of the types of questions presented in the MBTI (Briggs & Myers, 1976). Question 126 is used to indicate a preference between extraversion and introversion:

    Can you
    (a) talk easily to almost anyone for as long
         as you have to, or
    (b) find a lot to say only to certain people
         under certain conditions?

Question 128 is used to distinguish between a preference for sensing or intuition:

    If you were a teacher, would you rather teach
    (a) fact courses, or
    (b) courses involving theory?

Question 26 is used to determine a preference for either thinking or feeling:

    Are you inclined to
    (a) value sentiment more than logic, or
    (b) value logic more than sentiment?

Question 27 reflects a preference for a judging attitude or a perceptive attitude:

    Do you prefer to
    (a) arrange dates, parties, etc., well
         in advance, or
    (b) be free to do whatever looks like fun
         when the time comes?

Teacher Questionnaire. The questionnaire (Appendix C) to which the participants responded was designed and constructed by the researcher to gather information necessary to this study. Information about the participants (age, grade taught, teaching experience) is summarized in Appendix A. Definitions were given of the four instructional strategies on which the study was focused: lecture with discussion, small group instruction, learning centers, and individually-paced instruction.

Question #1 asked teachers to rank the four instructional strategies according to their preferences. Question #2 directed teachers to indicate which strategy they thought was the best to teach each of the four subject areas of math, science, language arts, and social studies. Question #3 asked teachers to identify the subject area they most preferred to teach. Question #4 was a two-part discussion question which asked the participants to describe the strategy they most frequently used and why this strategy was the one they did or did not prefer to use.

A measure of face validity of the instrument was made by a panel of three professors in elementary education, members of the thesis committee.

Procedures

The MBTI was administered to the population by the professors teaching the graduate classes during regular class time. Approximately one hour was required to administer the instrument. The indicator was computer scored at the Center for Applications of Psychological Type in Gainesville, Florida.

A frequency table was drawn to show the number of teachers typed in each personality cell of the MBTI. Percentages were then obtained and indicated for each type (Appendix D).

A pilot administration to test the readability and procedures of the questionnaire was given to a group of ten graduate students in education on the campus of Appalachian State University. Minor modifications were made as a result of the pilot test.

Data Analysis

To determine if there was a relationship between teachers' first preference of an instructional strategy (question #1) and personality type, Fisher Exact Probability Test was used at the $p < .05$ level. All preferences indicated by teachers were then considered in relation to the amount of student freedom allowed in each strategy. Freedom is defined as the number of behavioral choices (usually movement) allowed the students. Freedom ratings of the strategies (FRS), from high (1) to low (4), were made for each of the instructional strategies:

Learning Centers	1
Individually-Paced	2
Small Group	3
Lecture with Discussion	4

The first choice of the teacher was given a weight (wt) of 1, the second choice 2, the third choice 3, and the fourth choice 4. The teachers' preference rankings were multiplied by FRS and were summed to give a freedom index (FI), (summation of FRS x wt = FI), as shown in Table 1. FI ranged from 30 (high freedom) to 20 (low freedom).

TABLE 1

TEACHER PERSONALITY TYPE AND FREEDOM INDEX

Personality Type	N	Freedom Indices
ENFP	4	30,29,27,26
ENTP	1	27
ENFJ	2	27,25
ESFP	2	27,27
ESFJ	6	29,27,27,25,21
ESTJ	1	22
INFP	3	29,23,21
INFJ	1	22
ISFP	3	26,26,21
ISFJ	12	29,27,27,26,26,24,23
		22,22,22,21,21
ISTJ	2	23,22
ISTP	1	21

To examine the teachers' preferences for the best strategy for teaching each of the four subject areas (question #2) a frequency table was made of their responses, presenting the number and percentage of responses for each.

The amount of freedom allowed students in the subject areas was judged, high or low, to form a freedom rating for subject areas (FRA). Both freedom ratings, FRS and FRA, were entered into a contingency table to determine if the freedom criterion were used by the teachers in both measures.

In question #3, teachers expressed their preference for teaching a particular subject area. A frequency table was made to show teachers' responses in terms of number and percentage for each personality type. To assess the possibility of a relationship between personality type and preference for a particular subject area Chi Square tests were used.

The two-fold discussion question, #4, asked the participants to give a description of the strategy they most frequently employed in their classroom (4A), and to explain why the strategy they used most frequently was or was not the strategy they most preferred (4B). To analyze these data, descriptive variables were drawn from each answer and tabulated according to type to show commonality or agreement among factors (Appendix E).

CHAPTER FOUR

RESULTS

The 38 participants of this study were administered the Myers-Briggs Type Indicator (MBTI) and assigned their particular types with the distribution of the population as shown in Appendix D. In each cell of the frequency table, the number of teachers assigned that type (N) is indicated, along with the percentage they represent out of the total population of the study. Of the possible 16 types, it should be noted that four types were not represented in this population. The two problems stated in chapter one concerning the 16 MBTI personality types therefore could not be examined. The researcher did look for relationships between the personality types represented and preferences in teaching.

The first question in the questionnaire asked the teachers to rank (first to fourth) the teaching strategies (referred to as styles in the questionnaire) by their preference. To determine if there was a relationship between personality type and teachers' first preference of an instructional strategy, Fisher Exact Probability Test was used. No significant relationship was shown. The analysis of data for question #1 allowed the calculation of the freedom index (FI) which is shown in Table 1 along with personality

type of the teacher. A significant relationship between
the E-I variables of personality and the freedom index was
found (see Table 2). Other combinations of type were not
made because the assumption of homosedasticity could not be
met due to the small number of teachers representing some
personality types.

TABLE 2

RESULTS OF TWO-TAILED t TESTS ON TYPE
AND ALLOWANCE OF STUDENT FREEDOM

Types Compared	Mean	Standard Deviation	t values
E - I	23.56 - 26.18	6.70 - 7.22	2.62*
S - N	25.52 - 24.00	7.33 - 8.80	1.47
F - T	24.79 - 27.00	7.91 - 5.50	1.90
J - P	25.54 - 24.29	7.04 - 9.29	1.28

df = 37
* $p < .05$

In question #2 of the questionnaire participants
indicated their choice of the best instructional strategy
for each subject area.

Teacher Questionnaire -- Question #2

Indicate which <u>one</u> style you believe is best in
each of the following areas.
Math
Science
Language Arts
Social Studies
_____

The results of the teachers' responses in terms of number

and percentage for each possible answer are represented

in Table 3.

TABLE 3

TEACHER INDICATIONS OF THE BEST INSTRUCTIONAL
STRATEGY FOR EACH SUBJECT AREA

Subject Area			Instructional Strategy						
	Lecture With Discussion		Small Group		Learning Center		Individually Paced		
Language Arts	N	0	N	27	N	2	N	9	
	%	0	%	71.05	%	5.26	%	23.68	
Social Studies	N	6	N	14	N	17	N	1	
	%	15.79	%	36.84	%	44.74	%	2.63	
Math	N	1	N	18	N	3	N	16	
	%	2.63	%	47.37	%	7.89	%	42.11	
Science	N	0	N	13	N	25	N	0	
	%	0	%	34.21	%	65.79	%	0	

Total number = 38

A strong agreement seems to exist among teachers for the desirability of one instructional mode over another for each subject area. A majority indicated a preference for the small group strategy for teaching the language arts (71%) and math (47%), while learning centers were indicated as the best strategy for teaching social studies (44%) and science (65%).

The majority cited for each instructional strategy
was formed by more introverted (I) types than extraverted
(E) types. The introverted types limited their answers to
small group instruction and learning centers whereas the
extraverted types tended to be more varied in their answers
and, thus, did not reflect a majority for any one of the
strategies. The responses of the introverted teachers
dominated in the small group and learning center approaches.
Extraverted types were found to have preferences among all
four of the instructional strategies. These choices appear
to show relationship to personality type.

The data from question # 2 also allowed an examination
of the freedom rating of the instructional strategies (FRS)
and the freedom rating for subject areas (FRA). The two
strategies selected by a majority for all four subject areas,
learning centers (high freedom) and small group (low
freedom), were considered for analysis. Social studies and
science were selected as allowing a high amount of student
freedom and language arts and math were selected as having
a lower student freedom allowance. Table 4 shows the number
of teachers in each group according to the choices they
indicated in question # 2 . The Chi Square Test was applied
to these figures and revealed a highly significant relation-
ship between FRS and FRA ($p < .001$).

TABLE 4

RELATIONSHIP BETWEEN FREEDOM RATING OF
INSTRUCTIONAL STRATEGIES AND SUBJECTS

	Freedom	
	High (Learning Centers)	Low (Small Groups)

High
    Social Studies
    Science
	42	27

Low
    Language Arts
    Math
	18	45

df = 1
x^2 = 13.85
p <.001

Question # 3 provided for examination of personality
type and preference for teaching a particular subject area.

Teacher Questionnaire -- Question # 3

Which subject area do you most prefer to teach?
The participants were asked to respond with one of the four
instructional strategies defined in the questionnaire. Due
to the small population, the subject areas were grouped in
a number of ways in order to check for any relationship
with the various combinations of personality type using a
contingency table. No significant relationship was found
between personality type and preference for teaching a
particular subject area.

Question #4 was divided into two parts, both requiring the participants to answer with a discussion of their classroom situations and preferences.

Teacher Questionnaire -- Question #4

(A)   Of the four styles given, describe in as much detail as possible the one style you use MOST FREQUENTLY.

(B)   Is the style you identified in (a) your preferred method of instruction? WHY OR WHY NOT?

In an analysis of the writings, the researcher looked for similarities and dissimilarities among responses with a listing of 25 descriptive variables provided in Appendix E. No positive statement could be made concerning a relationship with personality type. Some of the variables mentioned, however, were of interest.

In the teachers' discussions on small group instruction, the most frequently mentioned variable was that of ability grouping. Ten of the 14 teachers giving this response were introverted types. The next three most frequently mentioned variables for small group instruction were flexibility, ease of assessment and evaluation, and variability of learning activities and materials. The majority of teachers indicating all these responses were ISFJ types.

All seven teachers indicating individually-paced instruction as the strategy they most frequently used were sensing - feeling types and five were extraverts.

The two teachers indicating they most frequently employed learning centers in their classrooms were _NFP types. Socialization benefits of this strategy were cited by an extraverted type.

From the data gathered, relationships were found to exist between personality type and the preference of teachers concerning the methods and strategies they use in their classrooms. In analyzing parts of the data, some patterns were beginning to develop between type and teaching preferences; they could not be accepted as valid, however, due to the small number of subjects involved.

CHAPTER FIVE

DISCUSSION AND CONCLUSIONS

This investigation was conducted in order to ascertain what relationship might exist between teacher personality and preferences for using a particular instructional strategy. Information was gathered by means of a questionnaire designed by the researcher and the Myers-Briggs Type Indicator (MBTI). The sample of 38 teachers, who were also field-based graduate students, responded to the questionnaire during a regular class meeting. The MBTI was given to all subjects prior to administration of the questionnaire and served to classify the teachers into one of 16 possible personality types.

An analysis of the questionnaire and the MBTI enabled the researcher to examine personality type in relation to preferences in various subject areas and teaching strategies.

Findings

A major finding of this study resulted from the analysis of the data collected from question #1, concerning teachers' preferences of four instructional strategies and the MBTI. Results of the t tests showed a significant relationship between the extraversion - introversion (E-I) variable of personality type and preference for an instructional

strategy when considered with the degree of student freedom allowed with each strategy. Extraverted teachers prefer strategies which allow for more student freedom than introverted types. This relationship reflects a characteristic difference between two personality types. Extraverts are often more open and uninhibited in their actions. Many of their actions are based on their relationships with others. They generally enjoy and allow themselves a great deal of freedom in what they do and therefore as teachers enjoy and see the need for movement in the classroom. Introverts, however, are more centered in themselves. Their energies come from within and, in fact, are diminished by a great deal of social contact. They do not see movement and interaction with others as important as do the extraverts. Therefore, as teachers, they do not choose to incorporate strategies with a great deal of student freedom allowed.

Another major finding concerned student freedom. Two measures of freedom were devised, a freedom rating of the instructional strategies (FRS) and a freedom rating of the subject areas (FRA). Testing indicated that the two ratings were highly significant. Student freedom is a determining factor in which instructional strategies teachers prefer to use in their classrooms. Some types of teachers like student movement to occur within their classrooms and therefore prefer strategies which allow for a great deal of movement. Other types of teachers feel insecure with or

do not like a great deal of student movement in their classrooms and choose to use strategies which permit less freedom. Student freedom is also a determining factor in which strategies teachers choose for teaching the various subject areas. The subject areas were thought to generally require different degrees of student freedom with science and social studies requiring more student freedom than math and language arts. The instructional strategies teachers indicated best for teaching these areas corresponded with the amount of freedom they were thought to require.

These data show that student freedom is a criterion teachers use to determine and establish their own teaching preferences and to plan instruction to suit their views about the needs of the various subject areas.

Data collected from question #2 also indicated other valuable information. A strong agreement existed among subjects concerning the desirability or suitability of one instructional strategy over another for teaching each subject area. The majority of teachers indicated small group instruc-tion as the best strategy for teaching the language arts and math, while they chose learning centers as the best strategy for teaching social studies and science. The majority indicating these selections were mainly introverted types. Introverted teachers tended to limit their choices to small group instruction and learning centers while the extraverts had more varied answers. The researcher believes these responses to be characteristic of the two personality

types. The variability of the extraverts' responses reflects the flexibility associated with the extraverted personality. The variety of their choices for the suitability of the different strategies for the four subject areas tend to indicate that they are more open and uninhibited to trying new teaching methods. The fact that all introverted teachers stated a preference for small group and learning centers as best for all subject areas suggests that they are more prone to teach within boundaries and styles with which they are most comfortable and may hesitate to try new means.

Although teachers indicated a preference for teaching one of the subject areas, no significant relationship was found between this preference and personality type, probably due to the small sample.

The descriptive variables taken from the teachers' discussions on their preferred and most frequently used instructional strategies produced some interesting information, although no relationships could be distinguished with personality type.

The teachers who indicated small group instruction as the strategy they most often used were mainly introverted types. This strategy was judged to allow a low degree of student freedom, showing that introverted teachers choose to maintain classroom control within their rules.

Most of the teachers stating that they used individually paced instruction most often in their classrooms were

extraverts. This strategy allows more student freedom than small group instruction and, thus, it may be expected that extraverted teachers would use this strategy more often. The data show that extraverted types seem to be willing to place more learning decisions and responsibilities on the students and allow them to freely interact with each other.

Recommendations for Further Study

The replication of this investigation with certain modifications may elicit some valuable findings. A major problem of this study, especially in terms of analysis of data, was the small sample. Only 12 out of the 16 possible MBTI personality types were represented with only one teacher represented in four of those personality types. Relationships may be found to exist if a larger number were considered where no apparent trends were found in this study. In reproducing this study with a larger sample, it is possible that all MBTI personality types might be represented since all types are found in the general population.

The questionnaire used as a primary data-collecting instrument should be refined for use in replication of this study. The instrument was not made sensitive enough to gather all the data needed to examine the problems stated as the working hypotheses. An investigation might also be made to verify that a relationship exists between teacher personality types and grade level preferred as indicated in the literature review. Since certain personality types seem to gravitate to teaching in particular grades, it

would be interesting to compare preferences of instructional strategies of teachers in the middle grades.

Further studies may expand on the findings of this study and uncover relationships between personality and other aspects of teaching. The researcher suggests an investigation of teacher-student relationships and personality. What types of students do teachers prefer in their classrooms? How do teachers view students of similar types and students of opposite types in learning abilities and achievement? Are teacher expectations for students of similar types the same as those for students of different types?

Conclusion

This study is important and valuable in that it adds to the understanding of the education process. As teachers are certainly a main function of that process, they undoubtedly have an effect on their students' achievement and learning outcomes. In this study, it has been shown that teacher personality affects how teachers prefer to teach and what they prefer to teach.

Research on teacher personality and other aspects of teaching will lead to a better understanding of teacher-student arrangements, thus producing greater educational gains for students.

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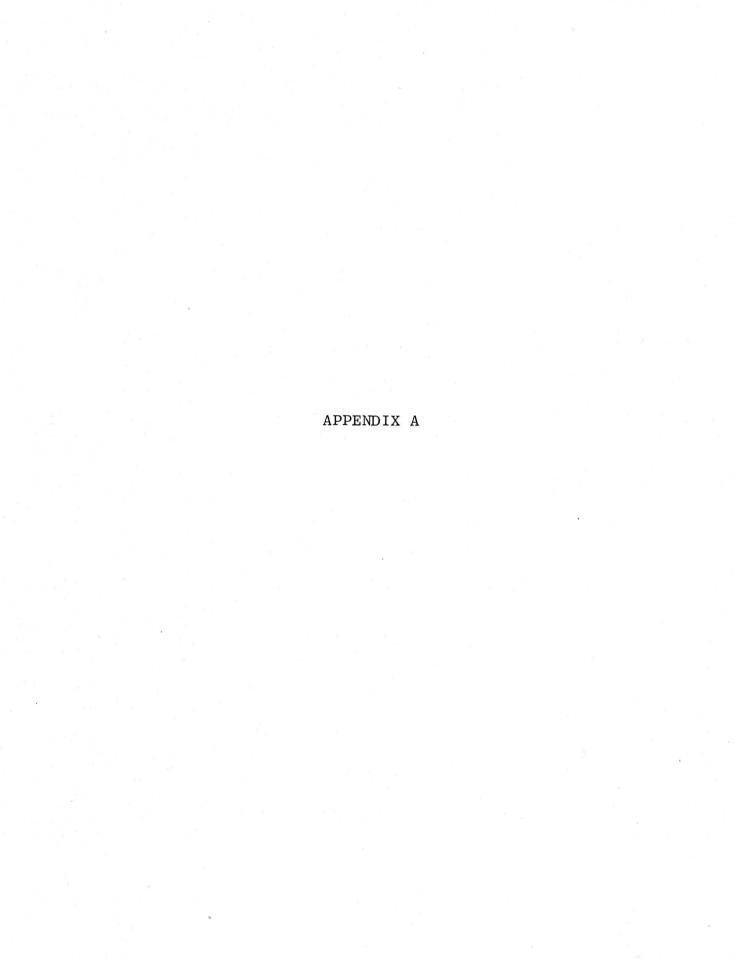   A Difference. New York: Holt, Rinehart & Winston,
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APPENDIX A

Age, Grade Taught, and Years of Experience of Teachers

Subject	Age	Grade	Experience
1	26	2	3.5
2	25	2-3	3
3	32	1	10
4	34	3	10
5	38	1	10
6	34	2	5
7	34	3	13
8	26	1	5
9	28	2	6
10	34	3	10
11	28	2	5
12	23	3	2
13	25	K	2
14	25	K	3.5
15	25	K	3
16		2	20
17	30	2	9
18	29	K	7
19	25	K	3
20	35	2-3	14
21	36	1	12
22	38	K	13
23	25	1-2	3
24	26	2	4.5
25	38	3	17
26	32	K	8
27	33	4	8
28	24	3	2
29	32	3	9
30	30	K	8
31	27	K	6
32	31	K	7
33	30	K	8
34	24	K	3
35	34	R	12
36	32	R	7
37	30	1	8
38	25	1	3

Total number = 38
K = Kindergarten
R = Reading

APPENDIX B

Letter Accompanying Teacher Questionnaire

Dear Participant,

Thank you for taking the time to help me with my study. I am investigating teacher personality, based on the results of the Myers-Briggs Type Indicator, and preferred teaching strategies.

Attached is a four page questionnaire for you to complete. Your name is not necessary, but your Social Security Number is most necessary. Please fill in the personal information on the first page and write your social security number on all other pages in the space provided.

Read carefully the brief definitions given on the first page. Keep these in mind as you answer the questions.

Directions
    1. Provide only one answer (teaching strategy) per space. Make a choice even if it is difficult for you to decide.
    2. Provide only one answer (teaching strategy) per space. Make a choice even if it is difficult for you.
    3. Indicate the one subject area you most prefer to teach. Choose from the four areas listed in question 2. It is not necessary to explain your preference.
    4(A). Indicate the teaching strategy you use most frequently. Make a choice even if it is difficult for you to decide. Provide as much information as possible.
    4(B). Explain fully why the strategy you use most frequently is or is not your preferred strategy.

When finished, refer back to these instructions to make certain you have answered all questions correctly.
    Approximate time: 45 minutes to 1 hour. Please allow yourself the full amount of time. It is important that you elaborate and provide as much detail as possible, on questions 4 (A) and (B) especially.
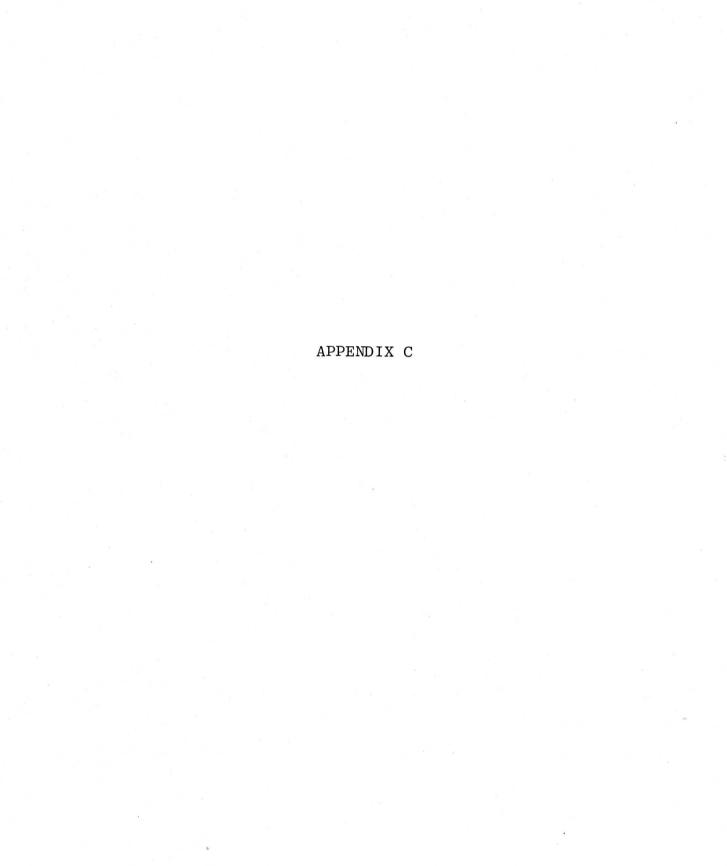   Thank you for your cooperation and help!

                                        Sincerely,

                                        Mary Jo Bradford

Have you taken the Myers-Briggs Type Indicator?

    _____Yes
                                (Please check one)
    _____No

APPENDIX C

Teacher Questionnaire

This questionnaire was prepared so that we may investigate preferred instructional styles of teachers.

Social Security Number _____

Age _____   Grade Taught _____

Years of Teaching Experience _____

<u>Directions</u>: Following are four major types of instructional styles. Please read the definition given for each and answer the four questions concerning these styles and your feelings about them as teachers.

LECTURE WITH DISCUSSION -- The teacher provides verbally, with or without visual aids, information on a topic and leads classroom discussion by posing questions for the students.

SMALL GROUP INSTRUCTION -- The teacher works with a small group of students to teach or discuss learning material or work on special projects.

LEARNING CENTERS -- Centers or specific areas set up for different subject areas or areas of interest. Each center contains work materials (work sheets, manipulatives, etc.) for students to use in working toward mastery of certain objectives.

INDIVIDUALLY-PACED INSTRUCTION -- The teacher identifies specific learning objectives in all subject areas for the entire class. Each student works at his/her own pace to reach these objectives.

Social Security Number _____

1. Rank the four styles according to <u>your</u> preferences.

   _____(first)

   _____(second)

   _____(third)

   _____(fourth)

2. Indicate which <u>one</u> style you believe is best in each
   of the following areas.
                                    (Style)
   Math   _____

   Science   _____

   Language Arts _____

   Social Studies_____

3. Which subject area do you most prefer to teach?

Social Security Number _____

4(A). Of the four styles given, describe in as much detail
       as possible the <u>one</u> style you use MOST FREQUENTLY.

4(B). Is the style you identified in (A) your preferred
method of instruction? WHY OR WHY NOT?

APPENDIX D

Type Distribution of Teachers

SENSING TYPES		INTUITIVE TYPES	
with THINKING	with FEELING	with FEELING	with THINKING
ISTJ N = 2 % = 5.26 /////	**ISFJ** N = 12 % = 31.57 ///////// ///////// ///////// /////////	**INFJ** N = 1 % = 2.63 //	**INTJ** N = 0 % = 0
ISTP N = 1 % = 2.63 ///	**ISFP** N = 3 % = 7.89 ////////	**INFP** N = 3 % = 7.89 ////////	**INTP** N = 0 % = 0
ESTP N = 0 % = 0	**ESFP** N = 2 % = 5.26 /////	**ENFP** N = 4 % =10.52 //////// ///	**ENTP** N = 1 % = 2.63 ///
ESTJ N = 1 % = 2.63 ///	**ESFJ** N = 6 % =15.78 //////// /////////	**ENFJ** N = 2 % = 5.26 /////	**ENTJ** N = 0 % = 0

JUDGING — INTROVERTS — PERCEPTIVE — PERCEPTIVE — EXTRAVERTS — JUDGING

	N	%
E	16	42.11
I	22	57.89
S	27	71.05
N	11	28.95
T	5	13.16
F	33	86.84
J	24	63.16
P	14	36.84
IJ	15	39.47
IP	7	18.42
EP	7	18.42
EJ	9	23.68
ST	4	10.53
SF	23	60.53
NF	10	26.32
NT	1	2.63
SJ	21	55.26
SP	6	15.79
NP	8	21.05
NJ	3	7.89
TJ	3	7.89
TP	2	5.26
FP	12	31.58
FJ	21	55.26
IN	4	10.53
EN	7	18.42
IS	18	47.37
ES	9	23.68

NOTES: Total number of teachers = 38
/ = one percent of total

APPENDIX E

Descriptive Variables of Small Group Instruction

Individually-Paced Instruction

and Learning Centers

Variables of Small Group Instruction	Number of Responses
Children are grouped by ability	14
Groups are flexible	11
Assessment and evaluation are made easier	9
Group activities and materials are more varied	5
Student participation is fostered	5
Children are more attentive	4
Children may be grouped for commonly needed skills	4
Children learn from one another	3
A more personal teacher-student relationship is created	3
Every child receives individual attention	3
Children are more comfortable working in groups	3
Children may be grouped according to shared interests	2
Group work is good for developing confidence and self-esteem in students	1

Variables of Learning Centers	Number of Responses
Children may work independently or in groups	3
Children are given responsibilities	1
Manipulative materials are available	1
The teacher can observe students	1
Children work on skill areas for which they have a need	1
Children acquire socialization and language development through contact with others	1

Variables of Individually-Paced Instruction	Number of Responses
Mastery is acquired	3
A variety of materials may be used	2
Objectives or goals are specified	2
All levels of students may benefit	1
The teacher has one-to-one contact with students	1
Assessment is more easily done	1

VITA

Mary Jo Bradford was born in Cleveland, North Carolina on September 22, 1957. She attended elementary schools in Cleveland and was graduated from West Rowan High School, Mount Ulla, North Carolina, in June 1975. The following August she entered Appalachian State University, and in December 1978, received a Bachelor of Science degree in Early Childhood Education. She taught third grade, interim position, Spring 1979 at Amity School in Iredell County.

In Summer, 1979, Ms. Bradford entered Appalachian State University and began study toward a Master's degree in Early Childhood Education. She accepted a teaching position in 1979 at North Hills School in Salisbury, North Carolina. The author was awarded a Master of Arts degree in August 1982.

Ms. Bradford's address is: Post Office Box 46, Cleveland, North Carolina, 27013. She presently teaches second grade at C.T. Overton Elementary School in Salisbury, North Carolina.

Ms. Bradford's parents are Mr. and Mrs. Joseph Calvin Bradford of Cleveland, North Carolina.