This study aims to explore leadership characteristics and contribute evidence to the validity of Jungian personality typology by investigating the relationship between principals' personality types and their reported problem-solving strategies. To test the hypothesis that the manner in which the principals report that they would solve a problem would be characteristic of their psychological types, the Myers-Briggs Type Indicator (MBTI) and the Principal Problem Strategy Questionnaire (PPSQ) were administered to 86 principals. The MBTI was scored for preferences in perceiving (sensing or intuitive) and judging (thinking or feeling) functions to generate a psychological type score. The PPSQ consists of 12 problem situations for which principals described what action they themselves would take. Answers to the PPSQ were coded for the respondent's psychological type functions based on MBTI results, and six Q-sorters independently classified PPSQ responses by characteristics of psychological types. Results indicate that perceived problem-solving strategies of sensing and intuitive type and thinking and feeling type principals are significantly different, and that the principals studied overwhelmingly perceived and judged problem situations according to their psychological type characteristics. It is concluded that if reported strategies reflect actual strategies, psychological type is a major determinant of leader behavior. (MLF)
A STUDY OF THE RELATIONSHIP BETWEEN ELEMENTARY SCHOOL
PRINCIPALS' PSYCHOLOGICAL TYPE AND PERCEIVED
PROBLEM-SOLVING STRATEGIES

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Rationale

The elementary school principalship is a middle management position. The principal must administer his or her school under the "umbrella" of general school board policy. Even though each principal in a particular school district operates under the same set of policies, each has a certain amount of autonomy. In fact, some of the more recent theories of school organizations view the school district as "loosely coupled" organizations (March & Olsen, 1976; Weick, 1976). This means that subunits, central office, and individual schools, are relatively independent of one another and are not controlled as directly by the level above them in the hierarchy as authoritarian bureaucracy theory would indicate. In any case, the elementary school principal has a fair amount of latitude in determining how to administer the school.

It is the assumption of this researcher that the manner in which each principal interprets and implements board policy goes a long way toward determining the unique nature of each school. Further it is assumed that the rules, regulations and procedures established by the principal for the operation of the school are greatly influenced by each principal's perception of his or her leadership role as elementary school principal.

It has been established that there is an inherent complexity and variety in the way that the principal performs his or her role (Lipham and Hoeh, 1974; March, 1978). It is the underlying hypothesis of this study that some of this variety is due to the differences in personality traits of the principals. Although there are a variety of tasks associated with the role, the tasks of responding to problem situations seem to be generic to the principalship. It is this task that is central to this research. It is hypothesized therefore that the manner in which the principals perceive that they would respond to a problem situation would be characteristic to their psychological types.
Background

The literature clearly supports the notion that the elementary school principal holds a key position in the school’s success (Liphani, 1981; Henthorn, 1980; Brookover et al., 1979; Goodlad and Klein, 1974; Blumberg and Greenfield, 1980). Studies of school effectiveness have focused on many characteristics such as school social systems, school goals and objectives, and attitudes and norms (Brookover et al., 1979; Squires, 1980; Wynne, 1980). Henthorn, in his review of school effectiveness studies, reports that the research has shown that the principal’s leadership is a key factor in the success of the school.

Sarason (1974) concludes that principals are aware that they are part of a very complex, if not incomprehensible, arrangement of roles and functions. Sarason believes that the manner in which the principal feels his or her behavior is related to external forces or internal forces is an important factor in determining how they behave. Wayson (1974) contends that much of what constitutes leadership behavior in a role such as the principalship is facilitated or retarded by personal factors—knowledge, skills, attitudes, preferences and habits. He maintains, like Sarason, that the constraints on the principal arise primarily from the way one chooses to view one’s self, the world, and one’s role.

It is these differences in which an elementary school principal chooses to “view one’s self, his or her world, and his or her role” and the effects of these views on a principal’s perceived leadership behavior that is the focus of this study.

Even though leadership has been studied for almost 200 years, much remains a mystery about this phenomenon. Stogdill (1974) and Korman (1966) in their extensive reviews of leadership research have reported that most of the results are inconclusive and often conflicting.
One of the earliest approaches to the study of leadership was the trait approach. The underlying notion of this approach was that some persons are "born leaders," that is, that they possess certain traits that make them uniquely qualified to lead.

Most of the early leadership trait studies compared leaders with non-leaders to see what differences existed with respect to physical characteristics, personality, and ability. Some studies focused on traits of successful leaders as compared with less successful leaders. Trait research has been reviewed by various scholars (Gibb, 1954; Mann, 1959; Stogdill, 1948, 1974), and in general, the studies reviewed failed to support the basic premise of the trait approach: the assumption that a person must possess certain traits in order to be a successful leader. Although some traits seem to be relevant for some kinds of leaders, these traits did not seem relevant to others. A leader with certain traits could be effective in one situation, but ineffective in another. In addition, two leaders with different patterns could be successful in the same situation.

In light of the previous studies, it may seem that to initiate a study to investigate leader personality characteristics would be folly, however, as Yukl (1981) points out, leadership researchers may have overreacted to the earlier pessimistic literature reviews by rejecting the relevance of traits altogether. This is evidenced by Stogdill (1974, p. 72) who states that:

The reviews by Bird, Jenkins, and Stogdill have been cited as evidence in support of the view that leadership is entirely situational in origin and that no personal characteristics are predictive of leadership. This view seems to overemphasize the situational, and underemphasize the personal nature of leadership.

This is not to suggest a return to the "natural leader" approach, but rather an approach that supports the notion that certain traits increase the likelihood that a leader will behave in a particular way. There are too many
contingencies surrounding the leadership process to assure that these traits will control the situation. The effect of these different traits may be dependent somewhat upon the nature of the leadership situation. However, since we have an incomplete picture of the processes underlying the complexity and dynamics of leadership, a study of the relationship of certain personality characteristics and perceived leadership behavior seems useful in helping to "unravel this puzzle."

The personality characteristic studied in this research is the personality trait that deals with preferences of how one "deals with his or her world." A theory that describes this aspect of the personality was developed by Carl G. Jung.

Jung's theory of psychological types (1923) is concerned with preferences people have in using their mental processes. He described various personality functions and attitudes that are basic in the way we prefer to deal with our world. As we have grown up, we have made choices as to how we would like to live our lives. These choices have resulted in the formation of preferences. Our preference for a particular function or attitude, in turn, is characteristic and is referred to as our psychological type.

The basic preferences that Jung alludes to are centered on the way people prefer to perceive the world and the way they prefer to make judgments. Perceiving is defined as being, "the process of becoming aware of things, people, occurrences, and ideas. Judging, includes the processes of coming to conclusions about what has been perceived. Together, perception and judgment, which make up a large portion of people's mental activity, govern much of their outer behavior, because perception—by-definition determines what people see in a situation and their judgment determines what they decide to do about it." (Myers, 1980, p.1).
Jung postulated opposite preferences for perceiving: Sensation (S) and Intuition (N). At any given moment a person will utilize one of the two possible functions. Sensing is a preference for perceiving immediate real solid facts of experience. This function employs all the senses in gathering data. Intuition, on the other hand, is the preference for perceiving meaning and relationships of experience, and possibilities that are beyond the reach of one's senses. All of us use the sensing function and intuition function, but not at the same time. It is basic to the theory, that while we will use both sensing and intuition, we will not use them with equal liking. We prefer one over the other.

The same is true for the two possibilities in the mental processes of judgment: Feeling (F) and Thinking (T). Feeling is defined as a preference for making judgments subjectively and personally, weighing values, and stressing the importance of making choices for oneself and other people. Thinking is a preference for making judgments objectively and impersonally, analyzing facts and ordering them in terms of cause and effect. The person that prefers the feeling function will take into account anything that is important to them, without requiring that it necessarily be logical. A person using the thinking function will usually make judgments logically and impersonally on the basis of cause and effect. (McCaulley and Natter, 1974, p. 105). As with the two preference possibilities for perceiving, we use both feeling and thinking at different times, but will prefer using one over the other.

The kind of perception function you prefer to use, either sensing or intuition, can combine with whatever kind of judgment process, thinking or feeling, that you prefer to use. Therefore, you can have four possible combinations of functions: Sensing-Feeling (SF), Sensing-Thinking (ST), Intuition-Feeling (NF), or Intuition-Thinking (NT). Each of these different
combinations produces a different set of characteristics. These characteristics contribute to such individual differences as values, needs, interests, habits, and surface traits.

Besides the four functions involved with perceiving and judging, Jung describes two major personality attitudes: Extraversion (E) and Introversion (I). These attitudes deal with how one prefers to use the perceiving and judging functions in gathering data. Extraverts prefer to use their functions with the outer world of people and things, while introverts prefer to perceive and judge the inner world of concepts and ideas. Extraverts will tend to be more interested in working actively with people and things, while introverts will be more comfortable when they are involved with ideas that require their activity to take place inside their heads (Myers, 1962). As in the case of the mental functions, we prefer to use one attitude over the other and use only one at a time.

Two additional attitudes which enhance Jung's original theory were added by Isabel Myers, and her mother, Katharine C. Briggs. These attitudes are concerned with the way people enjoy dealing with their outer world. The two preference possibilities are: Judgment (J) and Perception (P). People with a judging preference likes to live in an orderly, planned way. They desire to regulate and control their life. The persons with a perceiving preference enjoys being more spontaneous and flexible. They want to understand life and be able to adapt to events. (Myers, 1962). The nomenclature for this attitude may at first seem somewhat unfortunate, since the central mental functions described in Jung's theory focus on the way one prefers to perceive and judge the world. However, the terms are apropos since this attitude is related to those functions. The Judging-Perceiving (JP) attitude indicates the dominant mental process. For example, if a person has a Perceiving (P)
attitude then their perceiving function (either sensing or intuition) is dominant over their judging function (either thinking or feeling). If, on the other hand, they have a Judging (J) attitude then their judging function (thinking or feeling) is dominant over their perceiving function (sensing or intuition).

The different attitudes can act in combination with themselves and also with the different functions discussed earlier. This means, for example, that a psychological type could result that is described as an extraverted, sensing, feeling, judging (ESFJ) type or possibly an introverted, intuition, thinking, perceiving (INTP) type. A total of 16 possible types can result from the various combinations of the four functions and four attitudes. Each of the 16 types have characteristics unique to that particular type; these characteristics are described in detail in Myers (1962, 1980). Myers and Briggs developed an instrument to measure psychological types. This instrument, the Myers-Briggs Type Indicator (1962), was used in this study.

Although numerous research studies have been reported using the Myers-Briggs Type Indicator as an investigative tool in education, very few have studied school administrators. Essentially, there have been three studies: von Fange, 1961; Wright, 1966; and Morrison, 1980. The central purpose of these studies was to determine the frequency distribution of personality types among the administrators. In all the studies the extraverted, sensing, thinking, judging type (ESTJ) was the predominate type. Almost all the administrators in the three studies were male.

Von Fange's sample of 63 principals in Canada showed ESTJ to be clearly the most common type. Although there was a broader representation among the 66 superintendents that he studied, the majority were of the ESTJ type. Wright (1966) found that the personality of the 39 elementary school
principals that she studied to be primarily of the extraversion, thinking, judging type.

Morrison (1980) found that of the 29 principals that he studied, 33% were judging and 79% were sensing as opposed to perceiving and intuitive. He found that ten times as many principals had the Sensing-Judging (SJ) combination, than the Intuitive-Perceiving (NP) combination.

No research has been located that has investigated the relationship of school principals' personality types to principals' perception of their roles or their behavior. In fact, no studies have been located that relate principal personality types to any organizational processes.

The primary purpose of this study was to investigate the relationship between elementary school principals' psychological types and their perceived problem-solving strategies. In addition to seeking greater understanding about the leadership characteristics of principals, this research also had a general aim of contributing evidence to the construct validity of Jungian typology. The research centered on the functions described by Jung and the following research questions guided the study:

1. Is there a significant difference between Sensing (S) and Intuitive (N) principals' perceived problem-solving strategies?
2. Is there a significant difference between Thinking (T) and Feeling (F) principals' perceived problem-solving strategies?

Methodology

Sample

Eighty-six elementary school principals from the Chicago and Washington, D.C. suburban areas participated in this study. The sample included 36
principals from two districts in the Chicago area and 30 from one district in the Washington, D.C. area. These principals were invited to be part of the study and their participation was strictly voluntary. The sample was composed of 45 men and 41 women.

Data Collection

The principals were administered the Myers-Briggs Type Indicator, Form F, (MBTI) using the standard instructions. A few weeks after the MBTI was given, the principals were gathered together in their respective districts and were asked by the researcher to respond to the Principal Problem Strategy Questionnaire (PPSQ). After the PPSQ data was collected the principals participated in a workshop to describe and analyze their MBTI results.

Instrumentation

Principal Problem Strategy Questionnaire

The Principal Problem Strategy Questionnaire (PPSQ) is an instrument developed for this research to gather data pertaining to perceived problem solving strategies. The questionnaire contains twelve problem situations that are typical to the elementary school environment. The respondents are asked to describe in their own words what action they would take in each situation.

In order to develop the vignettes, the participants of the Peabody College of Vanderbilt University Principals Institute were asked to identify typical and prominent problem areas that they encountered in the elementary school. The vignettes were then written relative to these problem areas. The resulting vignettes were reviewed by a group of educational administration doctoral students at Peabody for the purposes of clarity and appropriateness. This review resulted in the original list of fifteen vignettes being reduced to twelve. The reasons for this were twofold, first there were three situations that the students felt were very similar to others in the