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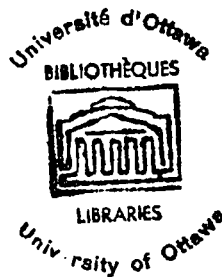
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THE RELATIONSHIP BETWEEN HELPER SET TYPE AND ABILITY
TO COMMUNICATE FACILITATIVE CONDITIONS

by Helen Bunn

Thesis presented to the School of
Graduate Studies of the University
of Ottawa in partial fulfillment
of the requirements for the degree
of Doctor of Philosophy



Ottawa, Ontario, 1978

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Curriculum Studiorum

Helen Bunn (née Hogue) was born December 6, 1942 in Pembroke, Ontario. She received her Bachelor of Science Degree in Nursing Education in 1966 and a Master of Education Degree in 1971 from the University of Ottawa, Ottawa, Ontario.

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Abstract of

The Relationship Between Helper Set Type and
Ability to Communicate Facilitative Conditions

The purpose of this study was to test the postulated relationship between Uznadze's type of set and the ability to experience and communicate Rogers' facilitative conditions.

Individuals who have a dynamic set as opposed to a static set tend to be harmonious, flexible, adaptable, able to process information efficiently and able to repress their own needs to focus on the needs of others. Such characteristics are similar to those ascribed by Rogers to more fully functioning persons who are more able to exhibit congruence, unconditional positive regard and empathic understanding.

It was therefore hypothesized that teachers who possess a more dynamic set communicate higher levels of congruence, level of regard and empathic understanding than teachers who possess a more static set. No directional hypothesis was made regarding the variable of unconditionality due to a lack of theoretical justification. The variable of unconditionality was included in the study because it has been used by some

researchers as a measure of Rogers' facilitative conditions.

The measuring instruments used in this study were the Relationship Inventory developed by Barrett-Lennard and the Uznadze Set Test-Visual Modality. One hundred six teachers from two secondary schools in a large suburban area were administered the Uznadze Set Test-Visual Modality. Those teachers scoring in approximately the top one-third on set extinction on the Uznadze Set Test-Visual Modality were classified as more dynamic, while those teachers scoring in approximately the bottom one-third on set extinction were classified as more static. A minimum of seven students was randomly selected from a class of each of the teachers in these two groups. Students assessed their teacher's level of the facilitative conditions using the Relationship Inventory.

A multivariate analysis of variance followed by a Step-down F procedure was utilized to analyze the data relevant to the hypothesis. A univariate analysis of variance was utilized to analyze the data relevant to the variable of unconditionality.

Results of the multivariate analysis of variance showed significant differences between the two groups. In

examining the Step-down F results, it was found that teachers who were more dynamic did not differ significantly from teachers who were more static on the variable of congruence. However, when the effect of congruence was removed a significant difference was evident on the variable level of regard. When the effects of congruence and level of regard were removed, no significant difference was evident for the variable of empathic understanding. No difference was found between the more dynamic and the more static teachers on the variable of unconditionality. Reasons for the above cited results were presented and discussed.

It was suggested that the study be repeated using elementary teachers, using secondary teachers assigned to small numbers of students and using counsellors. It was further suggested that future researchers give consideration to the number of years of experience accumulated by the teacher as well as the leadership style of the principal involved. Finally, suggestions were made to utilize other scales to measure Rogers' facilitative conditions.

Introduction

If education is viewed as a process which produces a change in the learner's behaviour as well as an accumulation of facts, then it is important to select teachers who can facilitate this kind of learning. Rogers has identified the facilitative conditions of congruence, unconditional positive regard and empathic understanding as essential elements necessary to produce such learning. The effectiveness of those facilitative conditions in the teacher-student relationship has been adequately demonstrated. It is important to identify the personality characteristics of teachers who might be able to ensure that these facilitative conditions are present in the educational setting.

One characteristic which might contribute to further understanding of how some teachers provide these facilitative conditions could be identified through the use of Uznadze's concept of set. Uznadze maintains that set is the fundamental aspect directing all of an individual's activity. He further maintains that individuals can be classified into groups according to the type of set manifested. He discusses the personality attributes of individuals in each of these groups.

Uznadze's description of the manner in which some individuals interact with others seems to be related to Rogers' expectations of those who provide the facilitative conditions for change.

Accordingly, the focus of the present study is the investigation of the relationship existing between the type of set manifested by the teacher and his capacity to experience and communicate the facilitative conditions of congruence, unconditional positive regard and empathic understanding.

The first chapter of the thesis involves a presentation of Rogers' theory of personality and therapy and Uznadze's theory of set as well as a review of related studies. The underlying theoretical rationale is developed leading to a description of the research problem and a statement of the hypothesis to be tested. The second chapter includes a presentation of the experimental design. The research subjects are described followed by a discussion of the research instruments, the procedure used to collect the data and the statistical analyses used to test the hypothesis. In Chapter III, the results of the statistical analyses are presented and discussed. The thesis concludes with a summary and discussion of recommendations for further research.

CHAPTER I

Review of the Literature

The purpose of this chapter is three-fold. The first is to examine a) Rogers' basic personality theory, b) his concept of the fully functioning person, c) his concept of the helping relationship variables and d) the application of Rogers' therapy concepts to education. The second purpose is to examine a) Uznadze's theory of set and b) the personality characteristics of individuals characterized by their set type. The third purpose is to critically examine the theoretical links between Rogers' and Uznadze's theories. The existence of such links leads to a description of the research problem and the hypothesis.

1. Rogers' Theory of Personality and Therapy

Rogers views each person as existing in a continually changing world of experience — his own private world or phenomenal field — which consists of all of his perceptions, both conscious and unconscious. Only a small portion of this phenomenal world is consciously perceived, but a great portion is available to consciousness and may become conscious when associated with the satisfaction of a need. It is that phenomenal field

which can potentially be known completely only by the person himself. Actually, the individual's awareness of his phenomenal field is limited. However, no one else can potentially know it as fully as he can. Gradually, a portion of that total phenomenal field becomes differentiated as the self. The self refers not to the organism, but to the individual's awareness of his being and his functioning. Rogers (1959, p. 200) describes the self as an organized, consistent, conceptual gestalt composed of perceptions of the "me" and the "me" in relationship to others and to the environment, along with the values associated with these perceptions. The organism strives basically to actualize, maintain and enhance the self. This movement toward growth is one of struggle and pain. Behaviour is the goal-directed attempt of the organism as an organized whole to satisfy this basic striving. The manner of behaving is usually consistent with the concept of the self. This behaviour is determined not by the external reality of the situation, but by the individual's perception, which for him constitutes reality. Thus, for behaviour to change, the individual must experience a change in perception.

As experiences occur they are either a) symbolized, perceived and organized into some relationship to the self, or b) ignored, because they are not perceived as related to the self, and/or c) denied or given distorted symbolization because they are perceived as inconsistent with the self. The more the individual accurately perceives and integrates experiences into the concept of self, the healthier or more adjusted is the person psychologically. Rogers refers to this as congruence between self and experience. In this psychologically adjusted state the individual is free from inner tension and thus is able to focus on actualization. If the individual has accurately symbolized and integrated all his experiences into his self concept, he is fully congruent or fully functioning. In reality individuals fall along a continuum with incongruence at one end of the continuum and congruence at the other. Fully congruent or fully functioning is a theoretical term referring to the end point of a process in which the individual is constantly changing and constantly trying to actualize his potential. Rogers (1959a, p. 234-235) has identified personality characteristics of the fully functioning person. The fully functioning person is open to experience; exhibits no defensiveness; has all

experiences available to awareness; accurately symbolizes experiences; exhibits congruence between self and experience; experiences himself as the locus of evaluation; has a valuing process which is organismic in nature; experiences unconditional self regard; meets new situations with creative and adaptive behaviour; and lives harmoniously with others.

In comparison to the congruent or fully functioning person, the incongruent person is one who is psychologically maladjusted. He ignores, denies and distorts experiences and is characterized by rigidity, defensiveness, tension and anxiety (Rogers, 1959a, p. 203, 238). Consequently, the incongruent person is unable to free himself from this defensiveness and anxiety in order to focus on self-actualization.

How does the incongruent person move in a positive direction toward congruence? Rogers maintains that if a climate free from threat is provided, the incongruent person can examine those experiences which are inconsistent with his self-concept and adjust his concept of self so that these experiences can be assimilated. Rogers (1959a, p. 213) outlines six conditions necessary for a client to move toward congruence. The conditions are: the therapist and client are in psychological

contact; the client is incongruent, anxious or vulnerable; the therapist is congruent in the relationship; the therapist experiences unconditional positive regard toward the client; the therapist experiences empathic understanding of the client; and the client perceives to a minimal degree the therapist's unconditional positive regard and empathic understanding. Rogers (1959a, p. 215) and Carkhuff (1971, p. 3-17) contend that the higher the level of these conditions the greater will be the reorganization and psychological growth in the client. Carkhuff (1971, p. 3) explains further that his research indicates not only that high levels of these conditions are necessary for psychological growth, but that low levels often result in deterioration of the client.

These conditions which Rogers describes as necessary and sufficient for therapeutic change are examined in more detail.

First, the therapist and client must be in psychological contact. By this Rogers (1959a, p. 207) means that each person in the relationship makes a perceived or subceived difference in the experiential field of the other. The term subceived is defined by Rogers as a

"discriminating evaluative physiological organismic response to experience which may precede the conscious perception of such experience" (Rogers, 1951, p. 207).

Second, the client is incongruent, anxious or vulnerable. Unless the client is anxious or vulnerable, there is no need for therapy.

Third, the therapist is congruent in the relationship. Rogers (1959a, p. 215) maintains that it is not necessary for the therapist to be a completely congruent person at all times. It is necessary that the therapist be as completely and fully himself in this experience as he is able. Rogers (1961, p. 61) describes congruence as:

[...] the feelings the therapist is experiencing are available to him, available to his awareness, and he is able to live these feelings, be them and able to communicate them if appropriate.

Congruence refers to a state of consistency between self-concept and experience. Congruence occurs when self-experiences are accurately symbolized and accepted into the concept of self. Rogers and Truax (1967, p. 101) specify that congruence does not imply that the therapist should burden the client with all of his feelings. Congruence does imply that the therapist not deny what

he is experiencing and that he be willing to communicate these experiences to the client if they are interfering with the relationship. Wexler (1974, pp. 111-112) criticizes many client-centered therapists for their recent emphasis on congruence as an end in itself. Wexler feels that this emphasis on congruence has resulted in a diversion from understanding the client's frame of reference to a focus on the therapist's feelings. This results in introduction of material which is external to the client's frame of reference. This criticism seems somewhat justified in examining Rogers' recent writings on personal power. Rogers (1977, p. 9) states: "The more the therapist can be aware of - and can become and express these feelings whether positive or negative - the more likely she is to be helpful to the client". In these same writings when discussing the actualization or congruence of the individual in the marriage relationship, Rogers appears to be moving to a narcissistic view. The more fully functioning persons he describes seem very wrapped up in their own feelings and concerns as opposed to the feelings and concerns of others.

Rogers and Truax (1967, p. 102) identify characteristics of therapists' functioning at low and high levels

of congruence. At a low level of congruence, the therapist is defensive, exhibits contradiction between his verbal and non-verbal communication and presents a facade or professional front to the client. At a high level of congruence, the therapist is open to all feelings and experiences without defensiveness or a professional front.

The fourth condition for therapeutic change is that the therapist experiences unconditional positive regard toward the client. Unconditional positive regard is described by Rogers (1961, p. 62) as outgoing positive feelings on the part of the therapist without reservation or evaluation. Unconditional positive regard involves a willingness on the part of the therapist to allow the client to experience fully whatever feelings are going on in him at the moment, whether those feelings are positive, such as love and joy, or negative, such as resentment and anger. Truax (1967, p. 569) offers further clarification. Truax describes unconditional positive regard at highest levels as a non-possessive caring for the client as a separate person with permission to have his own feelings and experiences. Accordingly, the therapist might exhibit a warm positive feeling toward the client, but if this

feeling is in any way conditional, the therapist is not experiencing unconditional positive regard. Rogers (1977, p. 10) states that it is not possible for the therapist to feel unconditional positive regard at all times; however, unless it is present frequently in the relationship, constructive change in the client is not likely to occur. This deep caring is necessary to provide a secure climate in which the client can explore himself more deeply.

The fifth condition for therapeutic change is that the therapist experience empathic understanding for the client's internal frame of reference. Empathic understanding involves sensing accurately the feelings and personal meanings of the client and communicating this understanding to the client. It involves sensing the client's feelings as if they were feelings the therapist might have, but which he is not currently experiencing. Rogers (1951, p. 348) further describes empathy as involving the ability to take the role of the client and to live the attitudes being communicated rather than merely observing them. This ability to take the role of the client requires flexibility on the part of the therapist (Rogers, 1951, p. 401). In order to empathically understand the client, the therapist must

temporarily lay aside his own views and be secure enough to move around in the client's experiential world without losing himself (Rogers, 1975, p. 4). In his original writings Rogers conceived of empathy as a state. In more recent formulations (Rogers, 1975, p. 3) he has changed his conception of empathy from one of a state of the person to a process. His current definition is as follows:

The way of being with another person which is termed empathic has several facets. It means entering the private perceptual world of the other and becoming thoroughly at home in it. It involves being sensitive, moment to moment, to the changing felt meanings which flow in this other person, to the fear or rage or tenderness or confusion or whatever, that he/she is experiencing. It means temporarily living in his/her life, moving about in it delicately without making judgements, sensing meanings of which he/she is scarcely aware, but not trying to uncover feelings of which the person is totally unaware, since this would be too threatening. It includes communicating your sensings of his/her world as you look with fresh

and unfrightened eyes at elements of which the individual is fearful. It means frequently checking with him/her as to the accuracy of your sensings, and being guided by the responses you receive. You are a confident companion to the person in his/her inner world. By pointing to the possible meanings in the flow of his/her experiencing you help the person to focus on this useful type of referent, to experience the meanings more fully, and to move forward in the experiencing.

This definition of empathic understanding implies a process of change rather than a fixed state. Empathic understanding involves sensitivity to the client's feelings and the ability to move about freely in his world. As the client moves through a process of change, the helper must change accordingly.

Rogers and Truax (1967, p. 104-105) identify characteristics of therapists' functioning at low and high levels of empathic understanding. At a low level, the therapist misinterprets client feelings or responds only to the most obvious feelings. He focuses on intellectual content as opposed to client feelings. In general he does not really listen to and understand

the client. At high levels of empathic understanding the therapist's remarks accurately reflect the client's content and feeling. The therapist is able to clarify and expand the client's awareness of experiences which have previously been just below his level of awareness.

The sixth condition for therapeutic change involves the client's perceiving to a minimal degree the unconditional positive regard and empathic understanding provided by the therapist. Rogers (1951, p. 65) maintains that growth in the client depends primarily on the way the conditions of unconditional positive regard and empathic understanding are perceived by the client. Rogers (1975, p. 8, 9) believes that when the warm, non-evaluative and accepting climate provided by the therapist is perceived by the client the result is that the client becomes more caring toward himself, more sensitively and accurately aware of his experiences and feelings and consequently more congruent with his experience. In essence, the client becomes more congruent, more unconditionally positive and more empathic as is his therapist. This belief is based on the assumption that the individual has the capacity and the desire to move in a growth-producing direction if he is provided with a safe climate in which to explore himself.

In understanding the facilitative conditions of congruence, unconditional positive regard and empathic understanding, it is important to examine Rogers' conception of the weighting and ordering of these variables. There seems to be some confusion in Rogers' writings regarding the weighting of, or the importance of, each of the helping relationship variables. Rogers (1959a, p. 215) states that congruence of the therapist is the primary and most helpful aspect in a relationship. In the same article Rogers (1959a, p. 208) states that it is the fact that the therapist feels and shows an unconditional positive regard for the client which brings about change. In a further article Rogers (1975, p. 3) contends that research evidence indicates that a high degree of empathy is the most potent factor influencing change and learning. Carkhuff (1969, p. 173) concurs with this. He states that without a minimum level of empathic understanding on the part of the therapist no therapeutic change occurs in the client. In other writings, Rogers (1957, p. 100) states that all three conditions must be present if therapeutic change is to occur. Rogers maintains that the implication is that all variables have equal weighting. It would seem that all three variables are necessary if the therapist

is to promote change in the client. Some of the confusion surrounding the importance of the specific variables is clarified by examining Rogers' ordering of these variables. Rogers and Truax (1967, p. 100) describe congruence at the most basic or fundamental of the three helping relationship variables. They maintain that unless the therapist is a congruent person in this particular relationship, he will be unable to free himself to experience unconditional positive regard for the client. They maintain further that unless the therapist experiences unconditional positive regard for the client, he will be unable to experience an empathic understanding of the client. Empathic understanding involves perception from the client's frame of reference, and thus necessarily implies relating in an unconditional manner. Conditionality implies evaluation and evaluation implies perception from the external frame of reference. Rogers and Truax (1967, p. 104) add further clarification in describing empathic understanding as the work of the therapist after he has provided a contextual base through his attitude of genuineness and unconditional positive regard. Rogers (1959a, p. 231) clarifies further. He states that empathic understanding is essential if unconditional positive regard

is to be fully communicated. Wexler (1974, pp. 110-112) adds some clarification. He views Rogers' concept of empathic understanding as an all encompassing task which subsumes the attitudinal aspects of congruence and unconditional positive regard. Wexler maintains that both congruence and unconditional positive regard are attitudes and involve in themselves no overt expression on the part of the therapist to the client. This overt expression occurs within the context of an empathic communication. In summary, it would seem that all three variables are essential. It is difficult to describe any one as the most important since they must be viewed in a sequential order from congruence to unconditional positive regard to empathic understanding (Rogers, 1966, p. 184). When the client experiences all three variables to a sufficient degree, this experience frees him to actualize.

Rogers, on the basis of his findings in psychotherapy extended his theory to education. Rogers (1969, p. 279) states that the best education should produce a person who is similar to the person produced by the best therapy. This person would be a more fully functioning person. Rogers (1969, p. 5) views the prime function of schools as providing opportunities for the student

to engage in significant or experiential learning. This kind of learning results in a change in the behaviour and attitudes of the student and may even alter the personality of the student. Rogers (1970, p. 468-483) postulates that the same facilitative conditions which are necessary and sufficient for therapeutic change are also influential in facilitating learning in the educational environment. These attitudinal qualities in the teacher are congruence, unconditional positive regard and empathic understanding.

As expected, Rogers' theory is not totally accepted. If therapeutic change is examined from a behavioural viewpoint, the conditions for change do not assume the same importance. As well, theorists such as Carkhuff (1969, p. 33) who accept that Rogers' conditions for change are necessary, do not accept that these conditions are sufficient.

Researchers have tended to confirm Rogers' postulations related to education. A number of researchers investigated the differences between therapists' and teachers' perceptions of the helping relationship. Soper and Combs (1962), Reitz, Very and Guthrie (1965) and Combs and Soper (1963) using a modification of Fiedler's Ideal Therapeutic Q Sort discovered similarities between teachers' and therapists' conceptions of the ideal

helping relationship. They conclude that there is agreement on the characteristics of an ideal helping relationship. Rogers (1970, p. 477) presented findings from an unpublished pilot study conducted by Bills. Bills discovered that teachers who were regarded as effective by their supervisors rated higher than teachers who were rated ineffective, on every attitude on the Relationship Inventory.

Mason and Blumberg (1969) found that high school students rated those teachers in whose classrooms they learned most, significantly higher on congruence, level of regard and empathic understanding than those teachers in whose classrooms they learned least. The variable of unconditionality did not discriminate between the two groups of teachers. Aspy (1969, pp. 39-48) in his study discovered that grade three pupils whose teachers rated high on congruence, unconditional positive regard and empathic understanding showed significantly greater gains in reading achievement. Aspy and Hadlock (1967, p. 287) determined that students, whose teachers rated low on these facilitative dimensions, were significantly more truant. Aspy and Roebuck (1975) using a scale similar to Rogers' conception of empathy, discovered that students of teachers offering high levels of meaning (more person-centered teachers) engaged in more self-initiated talk and exhibited fewer periods of silence and confusion. Rogers (1977, p. 87) paraphrases the results of further work done by Aspy, Roebuck and associates on person-centered teaching. Students of more person-centered teachers showed more improvement

in the learning of subject matter, were more adept at problem solving, exhibited more positive self-concepts, engaged in more initiating behaviour and exhibited fewer discipline problems.

The researching of Rogers' postulations both in therapy and in education has been greatly facilitated by the development of the Relationship Inventory (Barrett-Lennard, 1962). Barrett-Lennard with the corroboration of Rogers established operational definitions of the facilitative conditions and constructed a pencil and paper test which could be used by the client to rate his perception of the therapist's functioning on the facilitative dimensions. The Relationship Inventory has been used extensively in research, both in the therapy and in the education context.

In summary, in the studies described above, the importance of the facilitative dimensions in teaching has been demonstrated. Researchers have focused on the measurement of teachers already engaged in the teaching role. Little effort has been made to determine which candidates have the most potential before they enter the field of teaching. Direct testing of the facilitative conditions requires that a relationship be established between the potential teacher and a student

or students. It is important to identify characteristics of individuals who are able to offer high levels of the facilitative conditions. If identified, these characteristics could be used to screen candidates before they enter teaching. One fundamental aspect which might serve this purpose is the concept of set as developed by D. N. Uznadze.

2. Uznadze's Theory of Set

In this section, Uznadze's concept of set is defined, followed by an examination of the phases of set formation and a description of set types. The section ends with a critical review of related Russian and Western studies which have extended Uznadze's postulation of distinct personality types based on the characteristic set of the individual.

Although the concept of set has been utilized extensively in western psychological research, no single definition is accepted. The result has been several positions as described by Freeman (1939, 1940), Gibson (1941) and Hritzuk (1968). Soviet research on the other hand has been influenced by the work of D. N. Uznadze who has developed an integrated and unitary approach to the concept of set. Western psychologists place set in the role of a correlate of personality while Uznadze

conceives of set as the central determinant of personality (Stewin, 1969, p. 97). That is, western theorists conceive of set as only one of the aspects influencing behaviour while Uznadze views set as the one element responsible for all behaviour.

Uznadze (1966, p. 203) conceives of set as an integral state of the organism which predisposes it to act in a certain manner to solve a specific problem in order to satisfy an existing need. Set is the fundamental form of adaptation which the whole man uses to relate to his environment. It is a preconscious mental activity which is responsible for the integration and organization of all behaviour and all psychic processes. The basic principle underlying Uznadze's theory is as follows: An individual with some form of active need which is capable of being satisfied in the existing environment, relates to his environment on the basis of his set and this leads him to perform activity which will satisfy this need, (Uznadze, 1966, p. 24).

Two conditions are necessary for a concrete set to develop. They are a need and an appropriate situation for the satisfaction of this need. Uznadze defines need as a state of the organism requiring change and promoting activity designed to bring this change about

(Uznadze, 1966, p. 24). Uznadze differentiated needs into two main categories: substantive needs such as hunger which are viscerogenic in origin and functional needs which involve the desire for some kind of activity. As soon as a definite situation occurs in which a particular need can be satisfied, a concrete set develops and the individual feels the impulse to perform a certain action to satisfy this need.

Uznadze views human behaviour as functioning on two levels. The first level is the impulsive plane of behaviour. On this level the individual responds automatically or directly to a given situation. That is, if the situation is one with which he is familiar and no obstacles are detected he utilizes the already formed set (Uznadze, 1966, p. 114). However, if a problem arises, or the situation is inadequate to satisfy the existing need, the impulsive behaviour is delayed and a second plane of behaviour comes into operation — that of objectivization.

Objectivization is a process of halting an existing set. Once activity is halted, the individual focuses his attention on the object of interference. The individual becomes conscious of, objectifies and clarifies the interference, and decides on a new course of

action. In this case a new set has developed specific to the changed situation and the individual's present intentions. This power of objectivization allows the individual to change a set which is directly conditioned to a given situation and to move outside the realm of strictly personal needs to include the needs of others (Uznadze, 1966, p. 232).

Objectivization differs from perception and occurs between the two stages of perception. The first stage of perception consists of noticing; that is, stimuli act directly on a sense organ (Uznadze, 1966, p. 206-207). This stage takes place before a set is activated. The second stage of perception or true perception takes place after a set has been activated either on the plane of impulsive behaviour or on the plane of objectivization.

Uznadze maintains that if an individual objectivates effectively, correct thinking or logical thought will occur. If however, an individual continues to operate on the basis of a fixed set and is unable to temporarily escape from the influence of this fixed set in order to objectify the situation, then incorrect thinking and consequently inappropriate action occur.

Uznadze describes three properties of set: illusion, irradiation and generalization.

Illusion is actually an incorrect perception. Illusions, according to Uznadze may be of an assimilative or contrasting nature. Looking at the establishment of illusion in the context of an experimental situation assists in clarifying the concept. For example, a subject is presented with two circles of unequal size for fifteen trials. The larger circle is consistently presented on the right. Two circles of equal size are then presented. The individual may perceive the two circles as equal in which case he is considered not to have established a set for inequality. However, if a set for inequality has been established, the subject will perceive initially that the two equal circles are unequal in size. He may perceive that the circle on the right is larger than the one on the left. In this case he is experiencing an assimilative illusion. Another possibility is that he perceives that the objects have been transposed and perceives the larger circle to be on the left. In this case, he is experiencing an illusion of contrast (Uznadze, 1966, p. 45). Some subjects experience both types of illusion. Some subjects experience only one type of

illusion. Uznadze maintains that these illusions are not the result of the subjects' expectation. To substantiate his belief he subjected his individuals to setting trials under hypnosis and then carried out extinction trials after instructing the subjects to forget what had occurred under hypnosis. The subjects experienced illusions as described previously.

A second property of set described by Uznadze is its capacity for irradiation. Irradiation refers to the transfer of a set within a modality (for example, from one hand to the other) or to the transfer of a set between modalities (for example, between the haptic and visual modality). Uznadze contends that this property supports his assertion that set is a central determinant underlying all behaviour.

A third property of set, generalization, refers to the manifestation of a set developed in one form to similar stimulus conditions. For example, if a set for inequality is fixated using circles as the stimuli for setting trials, illusions will be manifested in responding to equal-sized squares or cubes used in the critical trials.

Uznadze maintains that individuals differ in the ability to establish a fixed set, to extinguish an

existing set and to develop a more appropriate set. The ease with which an individual establishes a set is referred to as the excitability or fixability of set and is judged by the number of trials required to establish the set in the laboratory setting. Initially the set is diffuse and undifferentiated. With the repeated presentation of the stimuli, the set becomes more differentiated and finally fixed.

In the experimental situation the process involves exposing the individual to a number of fixing trials — for example, a set for inequality in the visual modality would be established through repeated tachistoscopic presentations of stimuli consisting of unequal circles. After fifteen presentations of the unequal circles, stimuli consisting of equal circles are then presented. If the subject perceives the equal circles as equal he is considered not to have established a set for inequality and the fixing trials continue in an attempt to get the subject to establish a set for inequality. There are a few subjects who are unable to fixate a set within the experimental situation. However, with unlimited time even these subjects would be able to fixate a set. If the subject perceives the equal circles as unequal, that is, he experiences an illusion, he is

considered to have developed a set for inequality which is interfering with his perception of the equality of the present stimuli. Critical trials consisting of the repeated tachistoscopic presentation of the equal circles continue until the subject acquires accurate perception. That is, the subject perceives the equal circles as equal. This is referred to as set extinction.

Uznadze (1966, p. 45) has divided the process of extinction of set into three phases. These phases are: a) contrast illusion in which the subject perceives that the experimental objects have been transposed, b) assimilative illusion in which the subject perceives a regression to the fixed set and c) veridical perception in which the subject perceives the objects accurately. Some subjects experience all three stages. Others experience only some of these stages.

Uznadze has identified several characteristics of set based on the process of extinction. These characteristics are dynamic/static; plastic/coarse; constant/variable; and stable/labile.

A person who has a dynamic set is able to free himself from the influence of a previously fixed set and reach accurate perception (Uznadze, 1966, p. 79-80). In the experimental situation, the dynamic set is one

which is extinguished within a specified number of critical trials. A person who has a static set on the other hand is unable to free himself from the influence of the previously fixed set which is now inappropriate to the changed situation (Uznadze, 1966, p. 79-80). In the experimental situation the subject with a static set is unable to reach an accurate perception within a specified number of critical trials. The concepts of dynamic and static set may be viewed as a continuum with highly dynamic set at one end of the continuum and highly static set at the other end of the continuum (Prangishvili, 1966, p. 46).

Uznadze elaborates further on the concept of dynamic and static set and says sets may be further classified as plastic or coarse. A plastic set is one which begins to change under the influence of critical tests regardless of whether it is extinguished or not (Uznadze, 1966, p. 81). A coarse set, on the other hand, is one in which the critical tests have had no effect on the character of the set (Uznadze, 1966, p. 81). That is, the individual experiences assimilative illusions. No contrast illusions are experienced. A plastic dynamic set is one in which the subject passes through the stages of contrast illusion, assimilative

illusion and finally perceives the critical objects accurately. A plastic static set is one in which the subject passes through the stage of contrast illusion and remains at the stage of assimilative illusion without reaching the final stage of accurate perception. A coarse dynamic set is one in which the subject skips the stage of contrast illusion, experiences the stage of assimilative illusion and reaches accurate perception. A coarse static set on the other hand is one in which the subject skips the stage of contrast illusion, experiences assimilative illusions, but does not progress to the final stage of accurate perception.

Uznadze further refers to sets as being constant or variable and stable or labile. A constant set is one in which the type of set extinction remains the same when the same experimental conditions are provided at a different time (Uznadze, 1966, p. 85). A variable set is characterized by a change in the type of set extinction. The terms stable or labile refer to the capacity of a set to remain active for a certain period of time. Stable sets may remain active for weeks while labile sets may remain active for no more than an hour (Uznadze, 1966, p. 86).

Uznadze classified individuals into groups on the basis of their patterns of set performance. This classification is important as it has generated research into the personality characteristics of individuals in these groups. Uznadze identified three main groups: dynamic, static and variable. The dynamic group consists of the majority of adults in society, the healthy members of society (Uznadze, 1966, p. 142). The majority of individuals in the dynamic group are those with plastic/dynamic sets. A few have coarse dynamic sets. The sets of this dynamic group are characterized by low excitation, fair stability and constancy and fairly extensive irradiation (Uznadze, 1966, p. 141). These individuals possess a well developed power of objectivization which they use with ease in changing over to objectivated purposes (Uznadze, 1966, p. 142). Their sets are readily activated and operate without effort (Uznadze, 1966, p. 147). The static group represents the second highest number of adults in society. The coarse, static set predominates in this group (Uznadze, 1966, p. 143). They are characterized by high excitability, one-hundred percent constancy and stability and extensive irradiation (Uznadze, 1966, p. 143). Static individuals are able through

objectivization to correct the deficiencies in their character. However, these acts of objectivization occur with difficulty as they must overcome the strong impulses of their static sets and initiate activity in conflict with these impulses (Uznadze, 1966, p. 147).

Generally the normal subject has his own particular type of fixed set which remains the same in all modalities. There are, however, a small number who do not conform and they compose the third group of individuals who are classified as variable. Uznadze (1966, p. 85) states that variability arises only in abnormal cases. This variable group is further subdivided into a variable/stable and a variable/labile group. Variable/stable individuals are characterized by the highly developed strength of their needs. Their sets vary within rigidly defined limits. Variable/labile individuals are characterized by sets which remain active for not more than one hour. Like the members of the static group Uznadze (1966, p. 147) describes variable individuals as having difficulty with objectivization as the activities they are attempting to initiate are often in conflict with the natural impulses of their variable sets.

In summary, Uznadze has identified three types of subjects based primarily on their characteristics of set extinction. These types are described as dynamic, static and variable. Dynamic subjects consist of those individuals who are consistently able to extinguish set. Static subjects consist of those individuals who consistently have problems extinguishing set. Variable subjects are those who are inconsistent regarding the ability to extinguish set.

Uznadze's work has been extended both by Russian investigators and by western researchers. An overview of those studies which add to Uznadze's description of the three types, dynamic, static and variable will be discussed. Included are those relevant studies which have been translated from Russian as well as those carried out by western researchers.

The most important and extensive Russian study was done by Norakidze (1958, pp. 184-188). Norakidze analyzed data obtained from the study of one-hundred and fifty subjects. On the basis of this analysis he divided the subjects into three groups. The first group consisted of integrated, harmonious individuals. The second group were classified as conflictual and the third group were classified as impulsive. He describes

the integrated harmonious group as possessing dynamic sets in one-hundred percent of the cases. This he described as their most general and essential attribute. This dynamic set is responsible for their ability to adapt to a complex environment without conflict, to adopt expedient forms of behaviour and to objectivate with ease (Norakidze, 1958, p. 187). Conflictual individuals on the other hand were characterized primarily by the static nature of their sets. Because of the static nature of their sets, these conflictual individuals have difficulty freeing themselves from the influence of the fixed set even when extreme changes in their environment necessitate the evolution of a new set. They have difficulty changing their plan of action and are continually objectifying and reflecting on their behaviour. They are thus characterized by internal conflict (Norakidze, 1958, p. 188). The impulsive group is characterized principally by the variability of their sets. Some of their sets are variable/stable and others are variable/labile.⁵ This variability affects their behaviour but Norakidze does not specify what these effects are (Norakidze, 1958, p. 188). Norakidze (1958, p. 188) concludes that the type of set influences the behaviour of the individual.

Bzhalava (1966) adds some clarification to the personality characteristics of the static individual. He concludes that the static individual manifests rigidity in personality, attitudes and behaviour.

Several western researchers have added to the understanding of individuals characterized by specific types of set.

Janzen (1971) conducted a factor analytic study using Uznadze's set tests in the haptic and visual modality as well as measures of personality derived from the Eysenck Personality Inventory and the Minnesota Multiphasic Personality Inventory. Janzen concluded (1971, p. 57) that his study offered support for the concept of three major groups or personality types based on their characteristic set as described by Uznadze (1966) and Norakidze (1958).

Hertzog (1967) measuring set in the haptic and visual modalities discovered as hypothesized that individuals who possessed a dynamic set also possessed the characteristics of an elaborated linguistic code. Hertzog (1967, p. 67-78) concludes that the greater the dynamism of set possessed by the individual, the greater is his readiness for activity, the more he is attuned to a greater range of signals and the more able he is to

process information efficiently. Hertzog (1967, p. 11) and Hritzuk (1968, p. 13-15) suggest that the individual who possesses a more dynamic set has a more accurate subjective representation of reality.

Taylor (1971) investigated the relationship between set characteristics and creativity. Set tests were conducted in the haptic and visual modalities. Verbal creativity was determined by using Wallach and Kogan's tests while non-verbal creativity was measured by the Rorschach Ink Blot Test, The Patterns Test and The Circles Test. Taylor discovered as hypothesized that creative individuals needed a greater number of trials to excite a set in the visual modality than did non-creative individuals. The hypothesis that creative individuals required a greater number of trials to excite a set in the haptic modality was not confirmed. The hypothesis that creative individuals required fewer trials to extinguish a set in the haptic and visual modalities was confirmed.

In addition, Côté (1968) discovered that set extinction loaded highly on the factor of flexibility. Côté's findings were supported by research conducted by Stewin (1969).

The research cited above has focused on the investigation of dynamic and static individuals. There seems to be little research available to supplement Uznadze's description of the variable group. One reason may be that these individuals are difficult to identify. It is necessary to test on several occasions over a period of time to identify variable subjects. The nature of identification of these subjects may lead to errors in measurement. For purposes of this research emphasis is placed on the dynamic and static individuals.

In summary, it seems that Uznadze and Norakidze's conception of distinct personality types based on the characteristic type of set manifested is supported. The dynamic individual from theory and empirical findings may be described as follows. The dynamic person possesses a well developed power of objectivization which he uses to adapt easily to objectivated purposes. Uznadze (1966) and Norakidze (1958) imply that the individual who has a dynamic set undergoes less conflict in repressing his personal needs to focus on the needs of others. The dynamic person is harmonious, integrated, and possesses the ability to adapt to a complex and changing environment with a minimum of

conflict. He is characterized by a greater readiness for activity and the capacity to process information efficiently. There is some evidence to suggest he is flexible. The static person also objectivates, but he does so with difficulty. Thus, the static person has difficulty extinguishing a fixed set in order to establish a new set appropriate to the present need and the present situation. The static person is characterized by conflict, hesitation and rigidity in personality and behaviour.

The previously cited studies indicate that individuals who are dynamic differ in personality characteristics and behaviour patterns from individuals who are static. The following question arises. Do individuals who have a more dynamic set have the ability to attune themselves more readily to another person in an interpersonal relationship? Specifically, does a relationship exist between the ability to extinguish set and the ability to communicate Rogers' facilitative conditions?

3. Relationship Between Set and Facilitative Conditions

In this section, Rogers' helping relationship variables are examined in terms of Uznadze's set types. The purpose is to investigate the possible links between

the two theories and to provide a rationale for the statement of the research problem and hypothesis.

Uznadze maintains that two conditions are necessary for the activation of a set: a need and a situation in which the need can be satisfied. If Uznadze's set theory is used as the overall framework within which the helping relationship is placed, then the process may be conceptualized as follows: need becomes the helper's need to understand the feelings and perceptions of the helpee; situation becomes the interaction of the helper with the helpee. Accordingly, all behaviour on the part of the helper is based on the sets he has or is able to develop. Most of the sets necessary are already available in the individual's repertoire and thus emphasis is placed on the ability to extinguish an existing set and utilize a more appropriate set.

In relating to others, both Rogers and Uznadze emphasize moving outside the realm of purely personal needs to focus on the needs of others. According to Rogers, the helper's level of congruence is the factor which allows him to deal with his own personal needs and move toward meeting the needs of others. In Uznadze's framework, objectivization is the factor which allows the individual to move from the narrow realm of

purely personal needs to focus on the needs of others. Objectivization allows the individual to pause, to identify and to clarify his personal needs as an object of interference. When the problem is solved, the individual is then able to concentrate once again on the need of the other. Congruence and objectivization seem to play essentially similar roles.

Rogers views the concept of congruence as one of a continuum from fully congruent at one extreme to completely incongruent at the other extreme. Rogers has identified characteristics of the fully functioning or fully congruent person. These characteristics are similar to the characteristics used by Uznadze and associates to describe highly dynamic individuals. According to Rogers, the fully congruent person is characterized by openness to experience, maximum awareness of his experiences, accurate perception, absence of rigidity, a maximum of adaptability and the ability to live harmoniously with others. The incongruent person is characterized by the opposite of these dimensions. He is closed or defensive, has not integrated his experience into his self-concept, is anxious and rigid. Uznadze's dimension of dynamic/static may be viewed as a continuum as well, with

highly dynamic at one extreme and highly static at the other extreme (Prangishvili, 1966, p. 46). According to Uznadze and his associates, the more dynamic the individual is, the higher is his degree of objectivization and thus he has a greater awareness of experience. The dynamic individual is more accurate in his subjective representation of reality. He is more flexible and more adaptable to a complex and changing environment. He possesses a more harmonious personality. He undergoes less conflict in repressing his personal needs to focus on the needs of others. The static individual exhibits the opposite of these dimensions. He is characterized by conflict, hesitation and rigidity in personality and behaviour. In summary, the more congruent person would seem to possess characteristics similar to those of the more dynamic person, while the less congruent person would seem to possess characteristics similar to those attributed to the more static person.

Further clarification of the relationship between Rogers and Uznadze is provided by examining Rogers' concept of the sequential nature of the helping relationship variables. According to Rogers, congruence is the most basic or fundamental variable. Without congruence

between self and experience, the helper according to Rogers is unable to experience unconditional positive regard toward the helpee. Unconditional positive regard implies a non-evaluative caring for the other as a separate person. In order to be non-evaluative and positively caring, the helper must be aware of his own needs and the separateness of the helpee's needs from his own. The incongruent person is defensive and threatened and thus tends to evaluate the helpee's needs in terms of his own needs. Barrett-Lennard (1962, p. 5) states that the level of unconditionality is a function of the helper's security and integration. Unless the helper is aware of his own needs and has adequately integrated his experiences into his self-concept, he will be unable to move outside the realm of his own needs to care for the helpee as a person with separate needs.

Rogers further claims that unconditional positive regard is necessary before the helper can empathically understand another. Unless the helper is able to care for and accept the other as a separate person without evaluating him, it is impossible for the helper to understand from the helpee's frame of reference. Empathic understanding involves leaving aside

perceptions from the external frame of reference (that is, the helper's viewpoint or perceptions of an evaluative nature) and concentrating on the helpee's perceptions of his world.

Congruence seems to be a variable related to the helper as an individual. Unconditional positive regard and empathic understanding imply moving outside the helper to focus on the needs and perceptions of the helpee. Thus the more congruent the individual, the greater is his ability to experience and communicate the facilitative conditions of unconditional positive regard and empathic understanding. The fully congruent person possesses characteristics similar to those of the highly dynamic person. Thus, one would expect that the highly dynamic person would be able to experience and communicate higher levels of unconditional positive regard and empathic understanding.

Looking specifically at the dynamics involved in the concepts of unconditional positive regard and empathic understanding leads to further clarification of the possible relationship between set type and these two helping relationship variables. Unconditional positive regard implies that the helper lays aside his own personal needs to focus on the needs of the helpee

as a separate person. The helper accepts the helpee without reservation or evaluation. He demands no personal gratification. The less rigidly bound the individual is to his own personal needs and the less need he has to evaluate others in terms of his own needs, the more he is able to exhibit unconditional positive regard. Uznadze and Norakidze claim that individuals with dynamic sets are able, without conflict, to adapt to a complex environment. The interaction between helper and helpee would certainly constitute a complex environment. This suggests that the dynamic person may be able to lay aside his own needs to focus on the needs of the helpee. Static individuals characterized by internal conflict, hesitation and rigidity would seem to have difficulty responding to this complex environment. Thus, the static person would seem to have difficulty understanding his own needs and internal confusion. This would interfere with his ability to meet the helpee in an unconditionally positive manner. Thus, one would expect the highly dynamic person to exhibit higher levels of unconditional positive regard than the static person.

Rogers (1966, p. 187) describes empathic understanding as involving a perceptive and a communicative

element. The perceptive element involves sensing the client's emotion as if it were a feeling which you might have but are not currently having. This perceptive element involves following the helpee from moment to moment in an interaction. This moment to moment following of the helpee requires flexibility on the part of the helper as well as attendance to the communication from the helpee. The helper must attend fully to the perceptual cues being emitted by the helpee in order to recognize, identify and understand the feelings the helpee is experiencing. It seems logical that the more accurate the helper is in identifying the feelings and perceptions of the helpee, the more the helpee will perceive he is being empathically understood. The second aspect of empathic understanding, the communicative aspect, involves communicating this perception in language which is relevant to the helpee. This allows the helpee to clarify and formulate his emotions.

If Uznadze's theory is used as a framework, empathic understanding could be conceptualized as follows. As the situation (represented by the communication from the helpee) changes in order for the helper's behaviour to change, the helper's set must change. Thus, following the helpee from moment to

moment seems to imply extinguishing set frequently and with ease to develop a more appropriate set. Research has shown that the level of set extinction is related to the flexibility of the individual. Research also indicates that the more dynamic the set, the more attuned the individual is to a greater range of stimuli, the more efficiently he processes information to make accurate responses and the more accurate is his subjective representation of reality. In the helping relationship reality is conceived as the feelings and perceptions of the helpee. Thus, one would expect individuals with dynamic sets to experience and communicate a higher level of empathic understanding than those individuals with static sets.

In most cases, when empathic understanding is not present, it seems to be a case of the helper focusing on his own personal needs which may have been triggered by the helpee's communication. This is evidenced by evaluating behaviour. That is, the helper instead of attempting to understand the helpee's feelings and perceptions begins to evaluate these in the light of his own feelings, perceptions and needs. Barrett-Lennard (1962, p. 4) states that empathic understanding is reduced to the extent that the helper confuses the

helpee's experiences with experiences originating in himself. When the helper is able to identify, objectify and clarify his own needs or feelings as the object of interference he may then put these aside and once again re-establish an appropriate set and focus on understanding the helpee. Uznadze emphasizes that dynamic individuals are characterized by their high degree of objectivization and the ease with which they are able to move to objectivated purposes. In the situation described previously, the dynamic individual readily halts his activity, objectivates in order to assess the obstruction in communication, establishes an appropriate set and puts this set into operation in returning to an understanding of the helpee's frame of reference. The static individual also halts his activity and objectivates in order to ascertain the obstruction in communication. However, since the static individual tends to experience hesitancy and internal conflict in eradicating a fixed set and establishing a more appropriate set, he would seem to have difficulty re-establishing empathic communication with the helpee.

In summary, it seems reasonable to conclude that individuals who possess a dynamic set are able to exhibit significantly greater ability to experience

and communicate the helping relationship variables of congruence, unconditional positive regard and empathic understanding than are individuals who possess a static set. That is, individuals with a dynamic set would seem to be able to act more effectively as helpers.

A statement of the research problem and hypothesis follows.

4. Statement of the Research Problem and Hypothesis

Carl Rogers' (1957) contention that empathic understanding, congruence and unconditional positive regard are facilitative conditions necessary to an effective helping relationship has been supported by researchers, (Fiedler, 1950; Carkhuff and Berenson, 1967; Truax and Carkhuff, 1967; Carkhuff, 1969; Barrett-Lennard, 1972). However, helpers differ in their ability to experience and subsequently communicate those facilitative conditions to the helpee. It seems important to identify and investigate further those abilities in the helper which contribute to his capacity to experience and communicate those facilitative conditions to the helpee.

On the basis of theoretical and experimental considerations, it seems reasonable to assume that the characteristic set which the helper uses to relate to his world is related to the capacity to experience and

communicate those facilitative conditions to the helpee. Set is conceived by Uznadze (1966) as the tendency or integral state of preparation of the organism to perform an action which will satisfy a need. Uznadze (1966) states that set is the basis for the integration and organization of all behaviours and all psychic processes such as cognition, feeling and will. Uznadze views objectivization as the factor which allows the individual to move outside the realm of his own needs to focus on the needs of others. Uznadze and his associates have described individuals with dynamic sets as possessing high powers of objectivization, the ability to adapt easily to objectivated purposes, less conflict in repressing personal needs to focus on the needs of others, harmonious, integrated personalities, the ability to adapt to a complex and changing environment with minimum conflict, a great readiness for activity as well as the ability to process information more efficiently, and flexibility. The static person on the other hand is characterized by conflict, hesitation and rigidity in personality and behaviour.

Rogers describes the fully functioning person as being characterized by openness to experience, having the majority of experiences available to awareness,

perceiving situations accurately, utilizing all available data, lack of rigidity, ability to adapt maximally and live harmoniously with others. Rogers further describes the incongruent person as psychologically maladjusted, as ignoring, denying and distorting experience, as characterized by rigidity, defensiveness, tension and anxiety. Rogers further states that congruence is the basic factor which allows the individual to deal with his own needs and move toward meeting the needs of others. Congruence is necessary before unconditional positive regard and empathic understanding can be experienced. Rogers (1961, p. 56) states that the degree to which an individual is able to create relationships which facilitate the growth of others is a measure of the growth which he himself has achieved. Individuals who are able to offer the highest levels of the facilitative conditions are more fully functioning or more fully congruent. The attributes ascribed to the highly dynamic person by Uznadze and his associates are similar to the description which Rogers gives to his concept of the fully functioning person. The characteristics ascribed to the less dynamic or static person are similar to the characteristics ascribed to the less fully functioning or more incongruent person.

In summary, it seems that Uznadze and his associates in articulating the essential attributes of more dynamic and more static individuals, and Rogers in articulating his views on the ability to communicate the facilitative conditions are describing essentially similar constructs. Accordingly, the focus of the present study is the investigation of the postulated relationship between the helper's characteristic set and his capacity to experience and subsequently communicate Rogers' facilitative conditions.

The hypothesis arising from the research problem is: Teachers classified as more dynamic exhibit higher levels of congruence, unconditional positive regard and empathic understanding than teachers classified as more static.

CHAPTER II

Experimental Design

In this chapter, the research subjects are described followed by a critical examination of the two research instruments. The procedure used to collect the data and the statistical analysis are then described.

1. The Research Subjects

Research subjects were selected in the following manner.

Since teachers were to be tested for set during their spare period, a letter was sent to each teacher explaining briefly the research and requesting his/her involvement in this study.

Out of a possible total of one-hundred forty-two teachers from two schools in a large suburban area, thirty-four teachers chose not to participate in this study. Two of the remaining teachers were not used as subjects because they commenced teaching in January and were judged not to have had sufficient time to establish a stable relationship with their students. The remaining one-hundred six teachers volunteered to participate as research subjects in this study.

The individual teacher was used as the experimental unit.

2. The Research Instruments

Two instruments were used in this study. They were the Uznadze Set Test-Visual Modality and the Relationship Inventory. A detailed analysis of these two instruments follows.

Uznadze Set Test-Visual Modality. This instrument was developed by Uznadze as a comprehensive measure of the individual's tendency to establish a fixed set and subsequently eradicate that fixed set. The test involves tachistoscopic presentation of two circles of unequal size. Uznadze does not give specific directions regarding the size of these circles. The circles Uznadze used ranged from twenty-two millimetres to twenty-six millimetres (Uznadze, 1966, p. 13). The size of the circles used in this study are based on those used by Hritzuk (1968, p. 92). The large circle is thirty millimetres in diameter and is always presented on the subject's right. The small circle is fifteen millimetres in diameter and is always presented on the subject's left. These unequal circles are flashed for a time period of one-tenth of a second for fifteen trials. The time interval between trials is

ten seconds. The fifteenth presentation of the unequal circles is followed by the tachistoscopic presentation of two circles of equal size for a time period of one-tenth of a second. The equal circles are twenty-two and one-half millimetres in diameter. If the equal circles are perceived as unequal, the individual is considered to have established a set for inequality. If the individual perceives the equal circles as equal, he is considered not to have established a set for inequality. If set has not been established, presentation of the unequal circles is repeated for a maximum of forty trials. The equal circles are again presented on the thirtieth and fortieth trials. If the individual continues to perceive the equal circles as equal, for practical purposes he is considered to be unable to fixate a set. Researchers have tended to use varying numbers of setting trials. In this research, forty setting trials were utilized to ensure that as large a number of subjects as possible would be able to fixate a set. This is consistent with Uznadze's contention that every subject can fixate a set if sufficient time is allowed for him to do so.

Those individuals who were able to fixate a set for inequality within forty trials were administered

critical trials to extinguish this fixed set. Critical trials involve repeated presentation of the equal circles to a maximum of thirty trials. The total number of critical trials required to establish veridical perception (perceiving equal circles as equal for five consecutive trials) is utilized as the individual's set extinction score. The use of five consecutive trials for accurate perception is suggested by Uznadze (1966, p. 44).

Several validation studies are available. Construct validity is provided by several Canadian researchers.

The Uznadze Set Test in both the haptic and the visual modality was utilized by Hertzog (1967) to differentiate individuals on the characteristics of linguistic code. Hertzog found, as hypothesized, that individuals who required fewer trials to fixate and extinguish a set in the haptic and visual modalities possessed the characteristics of an elaborated linguistic code.

Hritzuk (1968) investigated the relationship between type of set and certain personality characteristics measured by the Eysenck Personality Inventory. Hritzuk's hypothesis that hysterics as compared to

dysthymics would require fewer trials to fixate set in the haptic and visual modalities was confirmed. Hritzuk's hypothesis that hysterics as compared to dysthymics would require a larger number of trials to extinguish set in the haptic modality was not confirmed. Hysterics could not be compared to dysthymics on set extinction in the visual modality since dysthymics were unable to fixate a set and thus had no set to extinguish. Hritzuk also found as hypothesized that hysterics required fewer trials to irradiate set from the haptic to the visual modality than did dysthymics.

Korella (1970) hypothesized that test anxious as compared to non-test anxious subjects would require more trials to fixate set in the haptic and visual modality. This hypothesis was confirmed. The hypothesis that test anxious as compared to non-test anxious subjects would require more trials to extinguish in both modalities was not supported. However, results were in the direction predicted. Korella concluded that more trials should be used for each set task.

Taylor (1971) investigated the relationship between type of set and creativity. Verbal creativity was measured by Wallach and Kogan's test. Non-verbal creativity was measured by a battery of tests consisting

of the Rorschack Ink Blot Test, The Patterns Test and The Circles Test. Taylor found as hypothesized that creative individuals required more trials to excite a set in the visual modality than did non-creative individuals. He found no significant differences between these two groups on the number of trials required to excite a set in the haptic modality. Taylor found as hypothesized that creative individuals required fewer trials to extinguish a set in both the haptic and visual modalities.

Janzen (1971) performed a factor analytic study using the Uznadze Set Test in the haptic and visual modalities as well as the Eysenck Personality Inventory, the Minnesota Multiphasic Personality Inventory and a written autobiography. Janzen concluded that his study provided support for Uznadze's and Norakidze's postulations regarding three major personality types.

Although the hypotheses were not confirmed in two of the studies cited above, there seems to be sufficient indication that the Uznadze Set Test-Visual Modality is a valid measure which can be used to differentiate individuals on several aspects of personality and behaviour.

With regard to reliability of the Uznadze Set Test, Canadian researchers (Hertzog, 1967; and Hritzuk, 1968) have reported test-retest reliability coefficients of .98 to .99. Hertzog (1967) randomly selected twenty-five subjects from a total of eighty subjects. Re-test was done after one week. The categories used to rank individuals on set excitation and set extinction were 0-2, 3-5, 6-8, 9-11, 12-14, 15-17 and 17 + trials. Hertzog reported reliability coefficients of .98 for fixation in the haptic and visual modality; .98 for extinction in the haptic modality; .99 for extinction in the visual modality; and .98 for inter-model transfer. Hritzuk (1968) using twenty-five subjects randomly selected from a total of one hundred twenty-two subjects and retested after a one-week interval, reported the following reliability coefficients: .98 for fixation in the haptic and visual modalities; .98 for extinction in the haptic modality; .99 for extinction in the visual modality; and .98 for inter-model transfer. As with Hertzog, Hritzuk categorized individuals on set excitation and set extinction. The categories used for classification were 0, 1-2, 3-5, 6-10, 11-15, 16-19 and 20 + trials. The above

cited results support Uznadze's (1966) contention that set characteristics in normal adults are generally stable.

In conclusion, it seems that the Uznadze Set Test-Visual Modality is a valid and reliable measure of set.

In the following section, the Relationship Inventory will be analyzed.

The Relationship Inventory. This test was developed by Barrett-Lennard (1962) under the sponsorship of Carl Rogers at the Counseling Center of the University of Chicago. The test was designed to measure the communicated levels of the facilitative conditions hypothesized by Rogers (1958) as necessary and sufficient conditions for therapeutic personality change. Originally the Relationship Inventory measured five variables. They were congruence, level of regard, unconditionality of regard, empathic understanding and willingness to be known. The concepts of congruence and empathic understanding correspond closely to the meanings assigned to them by Rogers (1957). The aspects of level of regard and unconditionality of regard were developed by Barrett-Lennard based on the concept of unconditional positive regard. Barrett-Lennard (1962, p. 3) states that the concept of

unconditional positive regard was originally formulated by Standal in 1954 and subsequently utilized by Rogers (1963). Barrett-Lennard divided this concept into two aspects — level of regard and unconditionality of regard, as he felt that the variable included two distinct and separate components. The variable willingness to be known was derived by Barrett-Lennard as an addition to Rogers' three basic variables.

Barrett-Lennard (1962, pp. 15-16) found in his investigation that the four variables of congruence, level of regard, unconditionality of regard and empathic understanding were useful measures of therapeutic personality change. The variable willingness to be known was not significantly related to therapeutic personality change and consequently researchers have tended, as suggested by Barrett-Lennard, not to use these scores when testing Rogers' theory. In keeping with this suggestion, in this research the same practice was followed.

Barrett-Lennard describes the variables in the Relationship Inventory as follows:

1. Congruence is defined as:

The degree to which one person is functionally integrated in the context of his relationship with another, such that there is absence of conflict or inconsistency between his total experience, his awareness, and his overt communication [...] (Barrett-Lennard, 1962, p. 4).

2. Level of regard is defined as:

[...] the affective aspect of one person's response to another. This may include various qualities and strengths of 'positive' and 'negative' feeling. Positive feelings include respect, liking, appreciation, affection, and any other affectively abient response. Conversely, negative feelings include dislike, impatience, contempt, and in general affectively abient responses. Level of regard is the general tendency [at a given time] of the various affective reactions of one person in relation to another (Barrett-Lennard, 1962, p. 4).

3. Unconditionality of regard is defined as:

In contrast with level of regard this concept is specifically concerned with how little or how much variability there is in one person's

affective response to another. It is defined as the degree of constancy of regard felt by one person for another who communicates self-experiences to the first (Barrett-Lennard, 1962, p. 4).

4. Empathic understanding is defined as:

[...] the extent to which one person is conscious of the immediate awareness of another. Qualitatively it is an active process of desiring to know the full present and changing awareness of another person, of reaching out to receive his communication and meaning and of translating his words and signs into experienced meaning that matches at least those aspects of his awareness that are most important to him at the moment (Barrett-Lennard, 1962, p. 3).

These definitions appear to correspond to the concepts used by Carl Rogers and were actually prepared under the direction of Rogers.

The original inventory used by Barrett-Lennard consisted of eighty-five items yielding a total score and five sub-test scores, one for each of the five variables. Each variable was represented by from sixteen to eighteen items. The variable willingness to be known contained sixteen items. Thus, in this

study, since these sixteen items were not used, analysis was done on the remaining sixty-nine items used to obtain scores on the other four variables.

Some of the items are stated positively while others are stated negatively. The questionnaire is in multiple choice form and allows for three grades of positive response (+1, +2, +3) and three grades of negative response (-1, -2, -3) for each item. These alternatives represent the strength of the respondents' feelings about the correctness of each statement as well as how important it is to him. The possible responses to each item statement are +1, (I feel it is probably true) or -1, (I feel it is probably untrue); +2, (I feel it is true) or -2, (I feel it is not true); +3, (I strongly feel that it is true), or -3, (I strongly feel that it is not true).

The questionnaire is scored allowing each response either to add to or detract from the sub-test score for the variable involved. The specific method of scoring is to reverse the sign of the subject's answer to negatively stated items. For example, if the subject answers -3 to a negatively stated item, the weight given to the item is +3. If the subject responds +3 to a negatively stated item, the weight given is -3.

The scores relevant to each variable are then added. This allows for a possible scoring range of $+3n$ to $-3n$ where n is the number of item statements for each variable. Thus, the range of scores for congruence is $+51$ to -51 ; the range for empathic understanding is $+48$ to -48 ; and the range for level of regard and unconditionality is $+54$ to -54 .

The validity of the Relationship Inventory is supported by the fact that all items were prepared under the direction of Carl Rogers. Content validity was further ensured through the use of five experienced client-centered counsellors as judges. The judges classified each item as a positive, negative or neutral indicator of each variable. Perfect agreement was reached except in the case of four items. Three of these were eliminated; the fourth item was retained as it was inconsistent only to the extent that one of the five judges assigned it a neutral rating. Subsequent item analysis conducted on data collected from clients indicated that none of the items contributed in the "wrong" direction to its variable. In the final inventory, each variable is represented by from sixteen to eighteen items.

Reliability of the Relationship Inventory is provided by several studies. Corrected split-half reliability coefficients determined by Barrett-Lennard (1962) with forty-two clients were congruence .89; empathic understanding .86; level of regard .93; and unconditionality of regard .82. Using a sample of thirty-six college students, Barrett-Lennard (1962) found test-retest correlations over a four-week period to be congruence .86; empathic understanding .89; level of regard .84; and unconditionality of regard .90. Snelbecker (1967, p. 616) using a modified version of the Relationship Inventory reports adjusted split-half reliability coefficients for non-directive therapists as level of regard .87; empathic understanding .84; unconditionality of regard .82; and congruence .84. Reliability coefficients for directive therapists were as follows: level of regard .94; empathic understanding .76; unconditionality of regard .85; and congruence .75.

The information cited above suggests that the Relationship Inventory is a valid and reliable measure of the facilitative conditions as posited by Rogers. However, the researcher has some reservations. These reservations are in relation to the splitting of

Rogers' dimension of unconditional positive regard into two components — level of regard and unconditionality of regard. This split does not seem consistent with Rogers' concept of unconditional positive regard. According to Rogers, unconditional positive regard involves outgoing positive feelings on the part of the helper without evaluation or conditions. Barrett-Lennard's variable level of regard meets one of these criteria. The variable level of regard differentiates positive feelings offered by the therapist from negative feelings. The more positive the feelings, the more helpful is the relationship. The more negative the feelings communicated to the helpee, the less helpful is the relationship. Thus, the variable level of regard seems essential. However, Rogers claims that these positive feelings must be communicated unconditionally. Barrett-Lennard, in his variable unconditionality implies that the more unconditional one is the more helpful one is. In reality, if the helper is highly unconditional, he may be helpful or harmful depending on the positive or negative nature of the feelings being communicated. If the helper is unconditional in his communication of positive feelings, he is helpful. However, if he is highly unconditional and communicates

negative feelings he will not be helpful and may indeed be harmful to the client. Following are two sample items from this variable: "Whether I am expressing 'good' feelings or 'bad' ones seems to make no difference to how positively — or how negatively — he feels toward me" and "He is equally appreciative — or equally unappreciative — of me whatever I am telling him about myself". Both these items are classified by Barrett-Lennard as positive items measuring unconditionality. As is evident from these sample items, it is difficult to determine whether the unconditionality is positive or negative in nature and thus it is difficult to use the variable of unconditionality with accuracy. As well, in examining the intercorrelations of the variables obtained by both Barrett-Lennard (1962) and Thomson (1972) it is evident that the variable unconditionality is less interrelated than the other variables. Barrett-Lennard (1962) using forty subjects reported that unconditionality of regard correlated with the other three variables of congruence, level of regard and empathic understanding in the range of 0.16 to 0.43. Schnarr (1977, p. 47) reported similar correlations obtained from Thomson's data (1972) using nine hundred eighty subjects. The correlations for

the variable of unconditionality of regard range from 0.40 to 0.48. The intercorrelations reported for the other three variables range from 0.56 to 0.85 in Barrett-Lennard's research (1962) and from 0.65 to 0.72 in Thomson's research (Schnarr, 1977, p. 47). Although the relationships between unconditionality and the other variables were positive, they were quite low. Barrett-Lennard (1962, p. 12-13) suggested that the low correlation between unconditionality and level of regard provided support for his decision to separate these two variables. This may be so, but the researcher suggests that the variable of unconditionality may not be a valid measure of Rogers' facilitative condition as the sequential nature of Rogers' conditions implies a high interrelationship. For the reasons cited above, it is difficult to hypothesize any relationships using unconditionality as a dependent variable. Thus, for purposes of this study, no directional hypothesis will be made regarding unconditionality. The variable of unconditionality was included in the study however, and was investigated to explore the possible relationship between it and the independent variable.

The form of the Relationship Inventory used in this study was developed originally to assess the

therapist's level of facilitative conditions as perceived by the client. However, Barrett-Lennard (1962, p. 29) states that the variables measured represent attitudinal qualities which could be measured in any kind of significant interpersonal relationship. The teacher-student relationship would constitute such a significant interpersonal relationship.

The original form of the Relationship Inventory was utilized by Thomson (1972) to measure the student's perception of the teacher's level of the facilitative conditions. Thomson (1972) hypothesized that teachers working under permissive-oriented principals would be perceived by their students as having a more positive interpersonal relationship than teachers working under task-oriented principals. Thomson (1972) discovered, contrary to prediction, that teachers working under task-oriented principals received significantly higher helping relationship scores. Thomson (1972, p. 72) suggests that these results could be due to several factors including the fact that schools, unlike other organizations, concentrate on input rather than productivity beneficial to the organization. As well, he stated that results may have been due to parents' and students' concerns with academic success leading to a

preference for teachers who are technically competent. This competence would be more evident in schools whose principals were task-oriented.

This section included a description of the research subjects and a critical analysis of the research instruments. Following is a description of how the data were collected.

3. Collection of Data

Each of the one hundred six teachers was administered individually the Uznadze Set Test-Visual Modality. Administration was done by the researcher over a period of three weeks in March 1974. A minimum of seven students was randomly selected from a class of each of these teachers. Students were administered the Relationship Inventory to measure their perception of the teacher's level of facilitative conditions. Administration was done in a group setting by the researcher. The purpose in selecting a minimum of seven students for each teacher was to ensure that at least five student results remained for each teacher after incomplete inventories were discarded. Testing was done in March to ensure that sufficient time had been allowed for a stable relationship to be established between teacher and student. Teachers and students were guaranteed anonymity.

4. Statistical Procedure

In keeping with the hypothesis, the independent variable is type of set and the dependent variables are congruence, unconditional positive regard and empathic understanding.

Testing of the hypothesis required the establishment of extreme groups on the independent variable of type of set. Accordingly, the following procedure was utilized. Using the Uznadze Set Test-Visual Modality, individuals scoring in approximately the top one-third on set extinction were classified as the high or more dynamic group, while individuals scoring in approximately the bottom one-third on set extinction were classified as the low or more static group. The cut-off score for the more dynamic group was ten while scores of twenty or more on set extinction trials constituted the more static group. The more static group of individuals included those who did not extinguish set within the thirty critical trials. Forty subjects fell within the more dynamic group and thirty-six subjects fell within the more static group. Of these thirty-six subjects in the more static group, twenty-seven subjects did not extinguish set in thirty critical trials.

As indicated previously, there are high correlations among the variables of congruence, level of regard and empathic understanding on the Relationship Inventory. The variable of unconditionality appears to be relatively independent of the other three variables. This relationship among the helping relationship variables necessitated modifying the original hypothesis for statistical analysis. The research hypothesis is as follows.

1. Teachers who possess a more dynamic set exhibit higher levels of congruence, level of regard and empathic understanding than teachers who possess a more static set.

No directional hypothesis was made regarding the relationship of type of set to unconditionality. The possible relationship between type of set and unconditionality was simply explored in this research.

In keeping with the high interrelationship between the variables of congruence, level of regard and empathic understanding, a multivariate analysis of variance was utilized to test the hypothesis. If significant differences were found, it was planned to use a Step-down F procedure to identify more closely the variables contributing to the significant

relationship. A Step-down F procedure was utilized due to the sequential nature of the helping relationship variables as described by Rogers. The sequence in which the variables were examined using Step-down F corresponded to Rogers' sequence. The sequence was as follows: congruence, followed by level of regard and finally empathic understanding.

A univariate analysis of variance was utilized to investigate whether differences existed between more dynamic teachers and more static teachers on the variable of unconditionality.

Level of significance was pre-set at .05.

The results of the investigation described above are presented and discussed in the following chapter.

CHAPTER III

Presentation and Discussion of Results

The purpose of this study was to test the postulated relationship between type of set and the ability to experience and communicate Rogers' facilitative conditions.

In this chapter, the results of the statistical analysis as they relate to the theory being investigated are presented and discussed. The chapter is organized into the following sub-sections: a) Results of the statistical analysis, b) Discussion of the results and c) Suggestions for further research.

1. Results of the Statistical Analysis

This study is based on the following research question: Do teachers who possess more dynamic sets tend to experience and communicate higher levels of the facilitative conditions of congruence, unconditional positive regard and empathic understanding than teachers who possess more static sets?

To answer the above question, a multivariate analysis of variance was utilized with type of set as the independent variable and with congruence, level of regard and empathic understanding as the dependent

variables. Univariate analysis of variance was utilized to investigate the possible relationship of unconditionality to type of set.

The intercorrelations of the dependent variables are presented in Table 1. Generally they tend to be similar to the intercorrelations obtained by Barrett-Lennard (1962) and Thomson (1972) as described previously.

Examination of the raw data (Appendix E) for set excitation and set extinction indicates the following results: 6.60 percent of subjects were unable to fixate a set within forty trials; 28.28 percent of those subjects who were able to fixate a set were unable to extinguish this set within thirty trials; 71.72 percent of those subjects able to fixate a set were able to extinguish this set within thirty trials.

The means and standard deviations of the more dynamic and more static groups on the variables of congruence, level of regard, empathic understanding and unconditionality are presented in Table 2. Although the difference between means for the variable of congruence was in the direction opposite to that predicted, the difference is very small. The differences between means for the variables of level

Table 1
Intercorrelations of Dependent Variables of
Congruence, Level of Regard, Empathic
Understanding and Unconditionality

Variables	Congruence	Level of Regard	Empathic Understanding
Level of Regard	.74		
Empathic Understanding	.70	.83	
Unconditionality	.47	.50	.53

Table 2
Means and Standard Deviations of Dynamic and Static
Groups on Congruence, Level of Regard, Empathic
Understanding and Unconditionality

Variable	Dynamic		Static	
	Mean	S.D.	Mean	S.D.
Congruence	12.924	6.693	13.376	7.853
Level of Regard	15.577	10.601	11.263	9.739
Empathic Understanding	2.010	7.546	0.050	7.365
Unconditionality	-1.067	6.629	-0.851	6.666

of regard and empathic understanding were in the predicted direction. The difference between means for the variable of unconditionality was in the direction opposite to that predicted, but again, the difference was very small.

The results of the multivariate analysis of variance were as follows. The F ratio for the multivariate test of equality of mean vectors was 3.0093. The degrees of freedom were three and seventy-two. The probability level was 0.0357. These results indicated that teachers who were more dynamic and teachers who were more static differed significantly in the communication of congruence, level of regard and empathic understanding.

Because of the sequential nature of the dependent variables, a Step-down F procedure was utilized to explore the contribution of the dependent variables to this difference. The results of the Step-down F procedure are presented in Table 3. There is no significant difference between teachers classified as more dynamic and those classified as more static on the variable of congruence. However, there was a significant difference on the dependent variable level of regard when congruence was used as a covariate.

Table 3
Results of Step-down F Procedure for Dependent
Variables of Congruence, Level of Regard and
Empathic Understanding

Variable	Step-down F	P Less Than
1. Congruence	0.0733	0.7874
2. Level of Regard	9.0487	0.0037 *
3. Empathic Understanding	0.0206	0.8864

* Significant at 0.05 level

There was no significant difference in the communication of empathic understanding when the effects of congruence and level of regard were removed.

The result of the univariate analysis of variance utilized to investigate possible differences between more dynamic and more static teachers on the variable of unconditionality was as follows. The F ratio was 0.0200 with one and seventy-four degrees of freedom. There was therefore, no significant difference on the variable of unconditionality between teachers who possessed a more dynamic set and teachers who possessed a more static set.

In the section to follow, the results of this empirical investigation are discussed.

2. Discussion of the Results

In general, the results support the contention that teachers who possess a more dynamic set exhibit different levels of congruence, level of regard and empathic understanding than teachers who possess a more static set.

In examining the results of the Step-down F procedure, it is evident that teachers who are more dynamic do not differ significantly on the congruence factor from teachers who are more static. Actually, in

observing the means for these two groups on the variable of congruence, the results are in the direction opposite to that predicted. This difference in means, however, is so small as to be almost equal. There are several possible explanations for this lack of significant difference on the variable of congruence. First, the Relationship Inventory is designed to measure the student's perception of the teacher's level of congruence rather than the teacher's actual level of congruence. In a classroom setting congruence may not be clearly defined. A teacher may appear congruent to a student but in actual fact may be quite incongruent. This discrepancy between perception of congruence and actual presence of congruence in the teacher may be due to the following factors. Teacher training aims at developing a level of competence and confidence in the teacher. Teachers who are more able to role-play the ideal teacher may appear more congruent to the adolescent student than other teachers who are less able to play this role. One has only to look at various actors portraying a particular character to understand that the actor who is most able to comfortably and confidently play the role of the said character is viewed by the audience as most real or most congruent. This

may be true for the teacher who is being viewed by his students. It is also possible that more experienced teachers who have developed confidence in presenting material and in relating to adolescents might appear more congruent than inexperienced teachers. The experience level of the teachers was not accounted for in this study. Thus, differences may have resulted if the experience level of the teachers had been considered and if a more direct measure of the individual teacher's level of congruence had been used.

Second, students may have been victims of their own expectations. Teachers are expected to be mature or congruent. They are held up by society as models of helping people. The adolescent student who is in a process of identifying himself may perceive that because teachers are expected to be congruent, they are in reality congruent. Thus, actual differences between individual teachers on level of congruence would not be perceived. This is substantiated to some degree by Barrett-Lennard (1962, p. 11) who says that a client's desire or readiness to find understanding in his therapist may appreciably distort his perceptions of the actual relationship in a positive direction. Perhaps the same holds true in the student's perception of

his teacher as this relationship is also viewed as a helping relationship.

In summary, the measure of congruence may have been inappropriate for use with adolescents. The actual level of congruence of the teacher may not have been measured adequately by the instrument. Extraneous variables may have influenced the results and accounted for the lack of differentiation on the variable of congruence.

In examining the results of the Step-down F procedure for level of regard with the effect of congruence removed, it is evident that teachers who are more dynamic differ significantly from teachers who are more static. The result relating to level of regard is consistent with the theory. Level of regard may be viewed as a pre-disposition to respond in a particular way to another person. Congruence is a basic attitude necessary to the development of a high level of regard. The communication of regard is a step beyond congruence and involves some action on the part of the teacher. The communication of regard could be construed as an objectivated purpose. Uznadze claims that both more dynamic and more static individuals are able to objectivate. They differ in that more dynamic

individuals objectivate with ease and are able to move to objectivated purposes more readily. Thus, one would expect the more dynamic individual to communicate higher levels of regard than the more static person.

Positive regard provides for the student a secure atmosphere in which "... delicate tentative new thoughts and productive processes can emerge" (Rogers, 1975, p. 9). Positive regard provides a contextual base for the teacher and allows him to move to the next level, that of empathic understanding of the student.

Some explanation is necessary in view of the lack of significant differentiation on the variable of empathic understanding. There are two possibilities: a statistical explanation and a situational explanation.

First, the statistical explanation is discussed. As will be recalled, Rogers views his helping relationship variables as being sequential in nature. He views congruence as the most basic element, followed by level of regard and empathic understanding. Consequently, a high correlation between these variables is expected. In this study, the correlation between level of regard and empathic understanding is 0.83. Thus, when a Step-down F procedure is used, and the effect of level of regard is removed, there is nothing left to indicate

significant differences on the variable of empathic understanding. These differences disappear naturally because of the high interrelationship between level of regard and empathic understanding.

Second, the situational explanation is explored. Earlier in this study, a link was established between the characteristics possessed by individuals who possess a more dynamic set and those characteristics of the fully functioning person. The more fully functioning person is by definition more congruent and would exhibit high levels of positive regard. The more fully functioning person would have the capacity for high levels of empathic understanding as well. However, he would not necessarily communicate high levels of empathic understanding if the conditions were not appropriate. Rogers offers some support for this in his statement: "I find it easier to feel this kind of understanding and to communicate it to individual clients than to students in a class ..." (Rogers, 1961, p. 53). In this study, teachers were involved in relating to as many as thirty-five students in a classroom setting. Most teachers had contact with their students for not more than one period or forty minutes per day. It is possible that teachers did not have

sufficient opportunity to communicate on a meaningful interpersonal level with the individual student in order to demonstrate their different levels of empathic understanding. As well, empathic understanding, unlike level of regard, implies specific overt communication. The fact that teachers in this study were interacting with several students in as many as six different classes per day might have interfered with this specific overt communication. Also, since each student was exposed to as many as eight teachers per day and since the student did not have a choice in evaluating a particular teacher on the Relationship Inventory, there may have been a tendency for students to evaluate the teacher cited in comparison to his seven other teachers. This would have resulted in a watered-down or diluted result on the Relationship Inventory. Further, the adolescent student may have difficulty separating the teacher's evaluative role from the teacher's attempt to understand the student as a person. A student may reason in the following manner: if the teacher really understands me and knows how important this course is to me, why did he give me such a poor rating? Thus, the adolescent student who has difficulty separating his concept of himself from his actions may have had difficulty

identifying accurately the level of empathic understanding communicated by the teacher.

In summary, the statistical and situational reasons cited above may have contributed to the lack of a significant difference between more dynamic and more static teachers on the variable of empathic understanding.

As will be recalled, no directional hypothesis was made regarding the variable of unconditionality. This decision was based on an examination of some of the items used in the Relationship Inventory to define this variable. These items were ambivalent and could be interpreted as reflecting either positive or negative feeling. The researcher questioned the validity of this variable as a measure of Rogers' facilitative condition. However, in this study the variable of unconditionality was examined in an exploratory manner. Unconditionality implies absence of evaluation in relating to another person. In a classroom setting, the teacher is required to be evaluative and conditional in regard to the student's academic performance and behaviour. Although Rogers suggests that the teacher can communicate acceptance of the student as a person within the limits of his role as evaluator, the

researcher has doubts. Although the teacher may attempt to separate these two aspects, the adolescent student who is in a process of identifying who he is, may have difficulty separating the teacher's evaluation of his academic performance and behaviour from the teacher's non-evaluative acceptance of him as a person. Perhaps, as with empathic understanding, the communication of the teacher's level of unconditionality is interfered with by the context in which the relationship occurs.

3. Suggestions for Further Research

Based on the results of this study, further research is needed to provide clarification of the relationship between type of set and Rogers' facilitative conditions.

First, it is suggested that this research be repeated using elementary school teachers rather than secondary school teachers as subjects. Elementary teachers have more contact with their students than secondary teachers, since elementary teachers tend to teach all subjects to a specific group of students. This kind of interaction would allow for the establishment of a more meaningful relationship between the teacher and individual student and thus would tend to result in differing perceptions of the communicated

levels of the facilitative conditions, particularly empathic understanding.

Second, this study could be repeated using as subjects secondary school teachers who have contact with small groups of students — for example, shop teachers. Again, the smaller number of students involved might allow more time for the teacher to establish a meaningful relationship with the individual student within the confines of the secondary school rotation system. This would hopefully result in higher levels of empathic understanding being communicated by teachers who possess a high capacity to empathize in comparison to teachers who possess less capacity to empathize.

Third, a further suggestion would be to repeat this study accounting for the expertness of the teachers involved. Barrett-Lennard (1962) showed that clients perceive more experienced therapists as communicating higher levels of the facilitative conditions. Presumably a similar result would occur in the teacher-student interaction. This would apply particularly to empathic understanding as Rogers conceives of empathic understanding as both an attitude and a skill. The skill aspect would be influenced by practice and

feedback. Thus, one would expect more experienced teachers to communicate higher levels of empathic understanding than inexperienced teachers, assuming that the capacity to empathize is similar.

Fourth, it is suggested that further research take into account the leadership style of principals of schools from which teachers are selected as subjects. This is in accordance with Thomson's research (1972) in which he found that teachers working under task-oriented principals were perceived by their students as exhibiting significantly higher levels of the facilitative conditions than teachers who worked under permissive-oriented principals. Accounting for the principal's leadership style might allow for more extreme scores on the facilitative dimensions.

Fifth, this study could be repeated using counsellors in an educational setting as subjects. Again, the opportunity to assess the communication of the facilitative conditions, particularly empathic understanding, in a more individualized setting might result in differences between more dynamic and more static persons. Counsellors have more opportunity to interact on a one-to-one basis with students than do teachers. This one-to-one contact over a period of

time would allow for the development of a more meaningful interpersonal relationship and thus would allow for greater differentiation in the communication of empathic understanding in particular. This reasoning is consistent with Rogers' statement that it is easier to communicate empathic understanding in a one-to-one relationship than it is in a classroom setting.

Sixth, it is suggested that the scales developed by Truax and Carkhuff could be utilized to assess the level of the facilitative dimensions. The method employs trained raters to assess the helper's level of communication of the facilitative conditions. Using trained raters' perceptions might allow for more accurate differentiation of the communicated levels of the facilitative conditions.

Finally, it is suggested that students be asked to identify their most preferred and least preferred teacher. The level of the facilitative conditions offered by both these teachers would be assessed by the student using the Relationship Inventory. Teachers would be further tested for type of set exhibited. This procedure might prevent the diluting effect which could occur when a student is requested to evaluate one specific teacher randomly chosen from the total of his

seven or eight teachers. This diluting effect could be due to a tendency for the student to evaluate the identified teacher in terms of his relationship with his other teachers. Thus, the actual relationship existing between type of set and communicated level of facilitative conditions might be higher than what was found.

It is hoped that subsequent research incorporating the above suggestions will contribute to a further understanding of the relationship between the individual's characteristic type of set and his ability to communicate Rogers' facilitative conditions. The further investigation of empathic understanding seems particularly essential as it is posited by Rogers, Carkhuff and Barrett-Lennard as the key ingredient in helping.

Summary and Conclusions

The purpose of this study was to investigate the relationship between the individual's characteristic type of set and his ability to communicate Rogers' facilitative conditions of congruence, unconditional positive regard and empathic understanding.

In this study, the theory was related to the educational setting. The relationship between type of set and the teacher's communication of the facilitative conditions in the classroom setting was examined.

Individuals who exhibit a more dynamic set as opposed to a more static set tend to be harmonious, flexible, adaptable to a complex environment, efficient in processing information and able to focus on the needs of others. These characteristics resemble those which Rogers uses to describe fully functioning persons who are more able to exhibit congruence, unconditional positive regard and empathic understanding.

Accordingly, it was hypothesized that teachers who possess a more dynamic set exhibit higher levels of congruence, level of regard and empathic understanding than teachers who possess a more static set. No directional hypothesis was made regarding the variable

of unconditionality. There was not sufficient theoretical justification for making such a hypothesis because it seems somewhat unclear as to what the variable unconditionality is measuring. The variable of unconditionality was included, however, to be investigated in an exploratory manner.

To test the hypothesis, two research instruments were used. The Uznadze Set Test-Visual Modality was utilized to measure type of set and the Relationship Inventory developed by Barrett-Lennard was utilized to measure the communicated level of the facilitative conditions.

The research subjects were one hundred six teachers involved in two secondary schools. A minimum of seven students was randomly selected from a class of each of the teachers involved in the study.

Teachers were classified as more dynamic or more static according to their extinction scores on the Uznadze Set Test-Visual Modality. Multivariate analysis of variance followed by the Step-down F procedure was utilized to analyze the data relevant to the hypothesis. Univariate analysis of variance was used to analyze the data relevant to the variable of unconditionality.

The result of the analysis of variance supported the hypothesis. The result of the multivariate analysis indicated that teachers who had a dynamic set and teachers who had a static set differed significantly in the communication of congruence, level of regard and empathic understanding. Results of the Step-down F indicated that the variable level of regard accounted for most of this significant difference. No significant difference was found on the variable of unconditionality.

The contribution of this study is primarily theoretical but does have some practical potential. The theoretical contribution resides in the link provided between the theories of Rogers and Uznadze. Rogers' theory was clarified through its application to an area not previously investigated. The practical contribution lies in the potential for utilizing the Uznadze Set Test-Visual Modality, which is relatively simple to administer and interpret, to select teachers and other helping persons. This research provided some support for the link between type of set of the teacher and his communication of Rogers' facilitative conditions. Caution must also be exercised however in generalizing the results of this study to other

populations and situations. More extensive research using large numbers of randomly selected subjects is required before the results can be generalized. The Uznadze Set Test-Visual Modality does seem to show some potential as a useful indicator of the effective teacher.

Suggestions for further research were made. These suggestions included repeating the study with elementary teachers or secondary teachers involved with small groups of students or counsellors in a school setting. Other suggestions were to account for the expertness of the subjects involved and the leadership style of the principal in each school as well as the possibility of utilizing other measuring instruments for Rogers' facilitative conditions.

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APPENDIX A

Verbal Instructions and Administration
Procedure for the Uznadze Set
Test-Visual Modality

APPENDIX A

Verbal Instructions and Administration Procedure for
the Uznadze Set Test-Visual Modality

Teachers are administered individually, the Uznadze Set Test in the visual modality. Teachers are given the following instructions.

This machine is called a tachistoscope and I am going to use it to show you some circles. Look in the eyepiece now and you should see a white field. (Wait for the subject to look into the tachistoscope). When I say ready, you should look at the white field. I will show you two circles for a brief period of time. Each time I do this, please tell me if the circles are equal or unequal in size. If you think that they are unequal in size, tell me if the largest circle is on the right side or on the left side. Do you understand the instructions? Let's begin. Ready.

A Scientific Prototype two Channel Tachistoscope is utilized to present the two stimulus slides consisting of a) two unequal circles and b) two equal circles.

The setting stimulus slide consists of a large circle thirty millimeters in diameter on the right and a small circle of fifteen millimeters on the left. The critical stimulus slide consists of two equal circles of 22.5 millimeters in diameter.

Each stimulus slide is presented for 0.1 seconds duration with an interval of ten seconds between trials.

Fixation of Set

Setting trials consist of presentation of unequal stimuli for fifteen trials. Then a test for set is made. Testing for set, that is, critical trials, involves presenting the slide containing equal stimuli without informing the subject. If no fixation appears, that is, the equal stimuli are perceived as equal in size, setting trials are resumed. Critical trials are made subsequently on the thirtieth and fortieth trial until a set has been fixated or to a maximum of forty setting trials. Verbal responses after each trial are recorded.

Extinction of Set

When a set is fixed, that is, when the two equal stimuli are perceived as unequal, trials for extinction begin. To extinguish the fixed set, presentation of equal stimuli, that is, critical trials, is continued

until the equal stimuli are perceived adequately for five consecutive trials or to a maximum of thirty critical trials. Verbal responses after each trial are recorded.

At the completion of testing, each teacher is requested not to discuss the experiment with other teachers until all testing has been completed.

APPENDIX B

The Uznadze Set Test-Visual
Modality Scoring Sheet

APPENDIX B

The Uznadze Set Test-Visual Modality Scoring Sheet

	L(left)	R(right)	E(equal)		L(left)	R(right)	E(equal)
	<u>EXCITATION</u>				<u>EXTINCTION</u>		
1.	L.	R.	E	1.	L.	R.	E
2.	L.	R.	E	2.	L.	R.	E
3.	L.	R.	E	3.	L.	R.	E
4.	L.	R.	E	4.	L.	R.	E
5.	L.	R.	E	5.	L.	R.	E
6.	L.	R.	E	6.	L.	R.	E
7.	L.	R.	E	7.	L.	R.	E
8.	L.	R.	E	8.	L.	R.	E
9.	L.	R.	E	9.	L.	R.	E
10.	L.	R.	E	10.	L.	R.	E
11.	L.	R.	E	11.	L.	R.	E
12.	L.	R.	E	12.	L.	R.	E
13.	L.	R.	E	13.	L.	R.	E
14.	L.	R.	E	14.	L.	R.	E
15.	L.	R.	E	15.	L.	R.	E
* 16.	L.	R.	E	16.	L.	R.	E
17.	L.	R.	E	17.	L.	R.	E
18.	L.	R.	E	18.	L.	R.	E
19.	L.	R.	E	19.	L.	R.	E
20.	L.	R.	E	20.	L.	R.	E
21.	L.	R.	E	21.	L.	R.	E
22.	L.	R.	E	22.	L.	R.	E
23.	L.	R.	E	23.	L.	R.	E
24.	L.	R.	E	24.	L.	R.	E
25.	L.	R.	E	25.	L.	R.	E
26.	L.	R.	E	26.	L.	R.	E
27.	L.	R.	E	27.	L.	R.	E
28.	L.	R.	E	28.	L.	R.	E
29.	L.	R.	E	29.	L.	R.	E
* 30.	L.	R.	E	30.	L.	R.	E
31.	L.	R.	E				
32.	L.	R.	E				
33.	L.	R.	E				
34.	L.	R.	E				
35.	L.	R.	E				
36.	L.	R.	E				
37.	L.	R.	E				
38.	L.	R.	E				
39.	L.	R.	E				
* 40.	L.	R.	E				

* Critical Tests

APPENDIX C

The Relationship Inventory

APPENDIX C

The Relationship Inventory

Instructions

1. Please do not write on this form. Record your responses on the answer sheet provided. Write the name of the TEACHER who teaches you during this class period in the space available on the answer sheet.

Do not write your name on the answer sheet. Your responses to the following statements will remain anonymous. The data obtained from you and other _____ County high school students will be used only for purposes of research being conducted at the University of Ottawa.

2. Following are listed ways that a person may feel or behave toward another person. Please consider each statement with respect to whether you think it is true or not true in your present relationship with the TEACHER who teaches you during this class period.

Mark your response to each statement according to how strongly you feel it is true or not true. Write +3, +2, +1, or -1, -2, -3, to stand for the following answers:

- | | |
|---|--|
| +3: Yes, I strongly feel that it is true. | -1: No, I feel that it is probably untrue. |
| +2: Yes, I feel it is true. | -2: No, I feel it is not true. |
| +1: Yes, I feel that it is probably true, or more true than untrue. | -3: No, I strongly feel that it is not true. |

1. He respects me.
2. He tries to see things through my eyes.
3. He pretends that he likes me or understands me more than he really does.
4. His interest in me depends partly on what I am talking to him about.
5. He is willing to tell me his own thoughts and feelings when he is sure that I really want to know them.
6. He disapproves of me.
7. He understands my words but not the way I feel.
8. What he says to me never conflicts with what he thinks or feels.
9. He always responds to me with warmth and interest — or always with coldness and disinterest.
10. He tells me his opinions or feelings more than I really want to know them.
11. He is curious about "the way I tick", but not really interested in me as a person.

12. He is interested in knowing what my experiences mean to me.
13. He is disturbed whenever I talk about or ask about certain things.
14. His feeling toward me does not depend on how I am feeling toward him.
15. He prefers to talk only about me and not at all about him.
16. He likes seeing me.
17. He nearly always knows exactly what I mean.
18. I feel that he has unspoken feelings or concerns that are getting in the way of our relationship.
19. His attitude toward me depends partly on how I am feeling about myself.
20. He will freely tell me his own thoughts and feelings, when I want to know them.
21. He is indifferent to me.
22. At times he jumps to the conclusion that I feel more strongly or more concerned about something than I actually do.
23. He behaves just the way that he is, in our relationship.
24. Sometimes he responds to me in a more positive and friendly way than he does at other times.

25. He says more about himself than I am really interested to hear.
26. He appreciates me.
27. Sometimes he thinks that I feel a certain way, because he feels that way.
28. I do not think that he hides anything from himself that he feels with me.
29. He likes me in some ways, dislikes me in others.
30. He adopts a professional role that makes it hard for me to know what he is like as a person.
31. He is friendly and warm toward me.
32. He understands me.
33. If I feel negatively toward him he responds negatively to me.
34. He tells me what he thinks about me, whether I want to know it or not.
35. He cares about me.
36. His own attitudes toward some of the things I say, or do, stop him from really understanding me.
37. He does not avoid anything that is important to our relationship.
38. Whether I am expressing "good" feelings or "bad" ones, seems to make no difference to how positively — or how negatively — he feels toward me.

39. He is comfortable when I ask him something about himself.
40. He feels that I am dull and uninteresting.
41. He understands what I say, from a detached, objective point of view.
42. I feel that I can trust him to be honest with me.
43. Sometimes he is warmly responsive to me, at other times cold or disapproving.
44. He expresses ideas or feelings of his own that I am not really interested in.
45. He is interested in me.
46. He appreciates what my experiences feel like to me.
47. He is secure and comfortable in our relationship.
48. Depending on his mood, he sometimes responds to me with quite a lot more warmth and interest than he does at other times.
49. He wants to say as little as possible about his own thoughts and feelings.
50. He just tolerates me.
51. He is playing a role with me.
52. He is equally appreciative — or equally unappreciative — of me, whatever I am telling him about myself.

53. His own feelings and thoughts are always available to me, but never imposed on me.
54. He does not really care what happens to me.
55. He does not realize how strongly I feel about some of the things we discuss.
56. There are times when I feel that his outward response is quite different from his inner reaction to me.
57. His general feeling toward me varies considerably.
58. He is willing for me to use our time to get to know him better, if or when I want to.
59. He seems to really value me.
60. He responds to me mechanically.
61. I don't think that he is being honest with himself about the way he feels toward me.
62. Whether I like or dislike myself makes no difference to the way he feels about me.
63. He is more interested in expressing and communicating himself than in knowing and understanding me.
64. He dislikes me.
65. I feel that he is being genuine with me.
66. Sometimes he responds quite positively to me; at other times he seems indifferent.

67. He is unwilling to tell me how he feels about me.
68. He is impatient with me.
69. Sometimes he is not at all comfortable but we go on, outwardly ignoring it.
70. He likes me better when I behave in some ways than he does when I behave in other ways.
71. He is willing to tell me his actual response to anything I say or do.
72. He feels deep affection for me.
73. He usually understands all of what I say to him.
74. He does not try to mislead me about his own thoughts or feelings.
75. Whether I feel fine or feel awful makes no difference to how warmly and appreciatively — or how coldly and unappreciatively — he feels toward me.
76. He tends to evade any attempt that I make to get to know him better.
77. He regards me as a disagreeable person.
78. What he says gives a false impression of his total reaction to me.
79. I can be very critical of him or very appreciative of him without it changing his feeling toward me.
80. At times he feels contempt for me.

81. When I do not say what I mean at all clearly, he still understands me.
82. He tries to avoid telling me anything that might upset me.
83. His general feeling toward me (of liking, respect, dislike, trust, criticism, anger, etc.) reflects the way that I am feeling toward him.
84. He tries to understand me from his own point of view.
85. He can be deeply and fully aware of my most painful feelings without being distressed or burdened by them himself.

APPENDIX D

The Relationship Inventory Answer Sheet

APPENDIX D

The Relationship Inventory Answer Sheet

Teacher's Name: _____

- | | | | |
|-----------|-----------|-----------|-----------|
| 1. _____ | 22. _____ | 43. _____ | 64. _____ |
| 2. _____ | 23. _____ | 44. _____ | 65. _____ |
| 3. _____ | 24. _____ | 45. _____ | 66. _____ |
| 4. _____ | 25. _____ | 46. _____ | 67. _____ |
| 5. _____ | 26. _____ | 47. _____ | 68. _____ |
| 6. _____ | 27. _____ | 48. _____ | 69. _____ |
| 7. _____ | 28. _____ | 49. _____ | 70. _____ |
| 8. _____ | 29. _____ | 50. _____ | 71. _____ |
| 9. _____ | 30. _____ | 51. _____ | 72. _____ |
| 10. _____ | 31. _____ | 52. _____ | 73. _____ |
| 11. _____ | 32. _____ | 53. _____ | 74. _____ |
| 12. _____ | 33. _____ | 54. _____ | 75. _____ |
| 13. _____ | 34. _____ | 55. _____ | 76. _____ |
| 14. _____ | 35. _____ | 56. _____ | 77. _____ |
| 15. _____ | 36. _____ | 57. _____ | 78. _____ |
| 16. _____ | 37. _____ | 58. _____ | 79. _____ |
| 17. _____ | 38. _____ | 59. _____ | 80. _____ |
| 18. _____ | 39. _____ | 60. _____ | 81. _____ |
| 19. _____ | 40. _____ | 61. _____ | 82. _____ |
| 20. _____ | 41. _____ | 62. _____ | 83. _____ |
| 21. _____ | 42. _____ | 63. _____ | 84. _____ |
| | | | 85. _____ |

APPENDIX E

Raw Data of Uznadze Set Test-Visual Modality

APPENDIX E

Table 4

Raw Data of Uznadze Set Test-Visual Modality

Subject	No. of Trials to Fixation	No. of Trials to Extinction
001	16	8
002	16	15
003	16	**
004	16	12
005	16	9
006	16	11
007	16	5
008	16	5
009	30	5
010	16	**
011	16	**
012	30	5
013	16	9
014	30	6
015	16	**
016	16	7
017	16	**
018	16	5
019	16	13
020	16	6
021	*	
022	16	6

Code * unable to fixate within 40 trials

Code ** unable to extinguish within 30 trials

Table 4 Continued

Subject	No. of Trials to Fixation	No. of Trials to Extinction
023	16	**
024	40	20
025	16	**
026	16	**
027	16	**
028	16	8
029	16	14
030	*	
031	30	7
032	16	6
033	16	5
034	16	12
035	16	12
036	16	10
037	*	
038	16	11
039	16	28
040	16	**
041	16	**
042	16	**
043	16	**
044	*	
045	30	**
046	*	

Code * unable to fixate within 40 trials

Code ** unable to extinguish within 30 trials

Table 4 Continued

Subject	No. of Trials to Fixation	No. of Trials to Extinction
047	16	11
048	30	9
049	16	20
050	40	8
051	16	8
052	16	5
053	16	22
054	16	14
055	16	**
056	16	**
057	16	**
058	16	22
059	16	13
060	16	22
061	16	9
062	16	**
063	16	5
064	40	6
065	16	**
066	16	9
067	16	26
068	16	25
069	16	7

Code * unable to fixate within 40 trials

Code ** unable to extinguish within 30 trials

Table 4 Continued

Subject	No. of Trials to Fixation	No. of Trials to Extinction
070	16	**
071	16	5
072	16	18
073	16	6
074	16	5
075	16	5
076	*	
077	16	**
078	16	**
079	16	6
080	16	18
081	30	12
082	16	9
083	16	14
084	16	8
085	*	
086	16	5
087	16	5
088	16	**
089	16	**
090	16	**
091	16	**

Code * unable to fixate within 40 trials

Code ** unable to extinguish within 30 trials

Table 4 Continued

Subject	No. of Trials to Fixation	No. of Trials to Extinction
092	16	7
093	16	26
094	16	11
095	16	6
096	16	6
097	16	12
098	16	17
099	16	**
100	16	16
101	16	**
102	16	6
103	16	10
104	30	13
105	16	17
106	16	19

Code * unable to fixate within 40 trials

Code ** unable to extinguish within 30 trials

APPENDIX F

Relationship Inventory Scores of Teachers
Classified as Dynamic

APPENDIX F

Table 5

Relationship Inventory Scores of Teachers
Classified as Dynamic

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U	Uncond.
001	8	001	+13	+30	+17	+16
		002	- 6	+26	- 7	-28
		003	+44	+50	+35	+33
		004	+15	+ 7	+13	-11
		005	-30	-17	-23	-12
		Mean	+ 7.200	+19.200	+ 7.000	- 0.400
005	9	001	+20	+ 7	+ 4	+ 4
		002	+15	+30	+ 9	+11
		003	+ 2	+ 6	-10	+ 1
		004	+37	+37	+19	+33
		005	+19	+16	+14	+12
		006	+33	+28	+14	-12
		Mean	+21.000	+20.166	+ 8.333	+ 8.166
007	5	001	+15	+15	+ 4	-20
		002	+26	+30	+ 4	- 1
		003	- 3	+23	- 5	-13
		004	+ 6	+ 7	- 4	-26
		005	+25	+39	+ 8	- 3
		006	+33	+23	+12	0
		007	+ 3	+ 2	-12	- 7
		008	+21	+11	+ 4	- 7
		Mean	+15.750	+18.750	+ 1.375	- 9.625
008	5	001	+ 6	+32	-23	0
		002	+28	+29	+ 6	+25
		003	+17	+21	+ 5	-13
		004	+30	+28	+21	+18
		005	- 1	+19	+ 1	+ 3
		006	-16	+22	-17	+ 1
		Mean	+10.666	+25.166	- 1.166	+ 5.666

Table 5 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U	Uncond.
009	5	001	+22	+36	+20	+16
		002	+ 9	+42	+12	+ 8
		003	+14	+20	+ 5	- 4
		004	+14	+28	+ 8	+ 9
		005	+26	+20	+ 5	+13
		006	+16	+ 1	-10	-15
		007	+23	+35	- 2	- 9
		Mean		+17.714	+26.000	+ 5.428
012	5	001	+20	+36	+15	+ 2
		002	+18	+10	+ 9	+ 1
		003	+14	+23	+ 3	+ 6
		004	-11	- 9	-18	-16
		005	+28	+27	+13	+12
		006	+16	+26	+ 2	-10
		007	+17	+13	+ 3	- 8
		Mean		+14.571	+18.000	+ 3.857
013	9	001	+21	+27	+ 9	+ 9
		002	0	-11	-12	- 3
		003	- 2	+20	-12	- 4
		004	+20	+26	+18	+14
		005	+ 7	+15	-13	+14
		Mean		+ 9.200	+15.400	- 2.000
014	6	001	+14	+24	+ 9	-14
		002	+ 9	- 3	+16	-12
		003	+12	+18	- 7	0
		004	+ 6	+ 7	- 4	-10
		005	- 5	+ 9	-13	- 1
		006	+17	+28	- 2	+ 6
		Mean		+ 8.833	+13.833	- 0.166

Table 5 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U	Uncond.
016	7	001	+33	+26	+12	+18
		002	+ 5	+30	+ 4	+ 4
		003	- 6	+11	- 6	- 6
		004	+16	+27	+10	-15
		005	+ 4	- 3	-15	-33
		006	+17	+18	- 5	- 8
		Mean	+11.500	+18.166	0.000	- 6.666
018	5	001	+34	+42	+30	+20
		002	+31	+22	+ 9	+13
		003	+17	+ 8	+16	+10
		004	+20	+25	+ 8	- 2
		005	+ 8	+14	+17	+12
		006	+20	+37	+21	+15
		Mean	+21.166	+24.666	+16.833	+11.333
020	6	001	+15	-15	-14	-10
		002	+26	+30	+20	+ 7
		003	-11	+ 5	- 2	-14
		004	+ 9	+28	+19	-11
		005	+19	- 5	- 8	-14
		006	+25	+28	+ 8	-10
		Mean	+13.833	+11.833	+ 3.833	- 8.666
022	6	001	+37	+40	+21	+ 8
		002	+30	+34	+14	+14
		003	+ 7	+35	- 8	- 5
		004	+38	+45	+22	+ 5
		005	+33	+40	+13	+23
		006	+31	+35	+ 8	+ 2
		007	+31	+31	+ 6	- 3
Mean	+29.571	+37.142	+10.857	+ 6.285		

Table 5 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U	Uncond.
028	8	001	+17	+17	- 9	+ 9
		002	+ 7	-15	- 5	+ 2
		003	+ 8	+18	-11	-13
		004	+21	+27	+14	+14
		005	+18	+39	+19	+26
		Mean	+14.200	+17.200	+ 1.600	+ 7.600
031	7	001	+14	+12	+ 2	+ 1
		002	+10	+22	+ 4	+ 8
		003	+20	+19	+24	+13
		004	+13	+31	+ 6	+ 6
		005	+14	+28	+10	-11
		006	- 8	+16	- 8	+ 2
Mean	+10.500	+21.333	+ 6.333	+ 3.166		
032	6	001	+10	+ 4	- 1	-16
		002	+ 5	- 9	- 8	-15
		003	+10	+ 5	- 7	- 6
		004	+ 3	-33	-15	-15
		005	+11	+11	+ 5	- 9
		006	+16	+15	-12	- 2
		007	+23	- 1	-18	-23
Mean	+11.142	- 1.142	- 8.000	-12.285		
033	5	001	+21	+31	+ 2	+16
		002	+36	+25	+16	- 3
		003	+17	+12	0	+ 2
		004	+18	+24	- 4	- 7
		005	+17	+24	+ 9	+34
		006	+28	+21	+14	+15
Mean	+22.833	+22.833	+ 6.166	+ 9.500		

Table 5 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Req.	Emp U	Uncond.
036	10	001	+10	+18	+11	+ 7
		002	+24	+27	+11	0
		003	-22	+15	-15	- 6
		004	+29	+41	+15	+36
		005	+32	+51	+29	+25
		006	+ 1	+16	- 4	-24
		007	+37	+45	+33	+10
		Mean	+15.857	+30.428	+11.428	+ 6.857
048	9	001	+37	+35	+13	+13
		002	+15	- 2	- 3	+ 5
		003	+25	- 7	+26	- 2
		004	-17	+22	- 4	- 4
		005	+18	+24	+22	- 8
		006	+ 3	+18	- 2	+29
		007	-25	+19	- 8	-47
		Mean	+ 8.000	+15.571	+ 6.285	- 2.000
050	8	001	+15	+14	- 5	-17
		002	+ 5	+ 4	- 6	-14
		003	+17	+21	+11	-14
		004	+ 9	+17	+ 7	-16
		005	+24	+36	- 6	+ 5
		Mean	+14.000	+18.400	+ 0.200	-11.200
051	8	001	+32	+14	+ 8	- 7
		002	+ 3	- 2	- 7	+ 1
		003	+17	+ 4	+ 7	+ 1
		004	+15	+ 8	+ 6	+18
		005	+12	+12	- 8	-14
		006	+19	+24	+ 7	+ 3
		007	+23	+35	+14	- 2
		Mean	+17.285	+13.571	+ 3.857	0.000

Table 5 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U	Uncond.
052	5	001	- 4	- 4	-13	-25
		002	+ 9	-10	-10	-22
		003	+ 1	-14	-12	-12
		004	+13	-11	-20	+ 9
		005	- 2	+ 9	-13	-13
		006	- 6	-28	-16	+ 3
		007	- 3	- 5	- 4	+ 6
		Mean	+ 1.142	- 9.000	-12.571	- 7.714
061	9	001	+17	+24	+17	- 8
		002	+11	+22	+11	+ 6
		003	+32	+44	+10	+15
		004	+17	+25	+15	-11
		005	+25	+34	+29	+30
		Mean	+20.400	+29.800	+16.400	+ 6.400
		063	5	001	-20	+ 4
002	+ 4			+11	+11	+ 3
003	+ 6			+15	- 1	+11
004	+14			+16	+ 1	- 2
005	+13			+24	+ 5	+22
006	- 1			+15	- 5	- 3
Mean	+ 2.666			+14.166	- 0.500	+ 3.833
064	6	001	+ 1	+10	-17	- 2
		002	- 3	+16	+ 1	-16
		003	+ 2	- 8	-25	-16
		004	- 7	-24	-27	+14
		005	- 8	-18	-11	+ 4
		006	+19	+17	- 4	+ 4
		007	-30	-28	-28	- 8
		Mean	- 3.714	- 5.000	-15.857	- 2.857

Table 5 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U	Uncond.
066	9	001	+13	+33	+11	-11
		002	+17	+31	+17	+ 1
		003	+20	+14	0	- 6
		004	-22	-18	-15	-17
		005	+13	+ 5	-16	-18
		006	+33	+51	+25	+19
		007	+17	+17	+19	+ 7
		Mean	+13.000	+19.000	+ 5.857	- 3.571
069	7	001	+ 9	+ 8	- 4	-20
		002	+ 2	+18	+12	- 7
		003	+16	+15	+ 9	+ 1
		004	+21	+18	+16	- 5
		005	+17	+26	+ 5	+ 1
		006	- 2	-16	- 7	+12
		Mean	+10.500	+11.500	+ 5.166	- 3.000
071	5	001	+ 7	-12	- 5	-19
		002	+27	+17	- 1	+14
		003	- 6	-37	-14	+ 3
		004	+10	+17	- 2	-18
		005	+13	+16	- 4	0
		006	+ 5	- 6	-21	-19
		Mean	+ 9.333	- 0.833	- 7.833	- 6.500
073	6	001	+28	+29	+ 6	- 1
		002	+29	+30	+19	- 1
		003	+30	+ 8	+12	+ 9
		004	+11	+21	+ 4	-10
		005	+11	+24	+12	- 3
		006	+ 6	- 4	+11	- 1
		007	+ 3	+19	+ 2	- 3
		008	+ 8	+17	+ 4	+10
		009	+14	+12	- 2	- 7
		010	+33	+39	+11	-14
		011	+31	+35	+15	+23
		Mean	+18.545	+20.909	+ 8.545	+ 0.181

Table 5 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Req.	Emp U	Uncond.
074	5	001	- 2	-34	-20	- 2
		002	+ 7	+18	-15	- 2
		003	- 4	-36	-18	0
		004	+ 3	- 4	-17	0
		005	- 7	-19	-25	+11
		006	- 9	0	-17	-24
		007	- 6	-30	-25	-25
		008	- 4	-21	-22	- 8
		Mean		- 2.750	-15.750	-19.875
075	5	001	+ 9	+19	- 6	- 6
		002	+25	+20	+ 4	- 2
		003	+19	+14	+ 9	+ 3
		004	+19	+39	+ 1	+13
		005	+28	+26	+ 7	+ 5
		Mean		+20.000	+23.600	+ 3.000
079	6	001	+ 6	0	+ 4	-12
		002	+16	+39	+ 5	+ 1
		003	+20	+14	+11	0
		004	+30	+21	+13	+ 7
		005	+13	+24	+ 7	- 1
		006	+11	+18	+ 6	- 5
		007	+ 1	-45	+18	- 1
		Mean		+13.857	+10.142	+ 4.000
082	9	001	+13	+21	+12	- 7
		002	-11	+11	-10	- 1
		003	+24	+33	+14	+10
		004	+25	+30	+19	-14
		005	+18	+33	+19	+ 6
		Mean		+13.800	+25.600	+10.800

Table 5 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U	Uncond.
084	8	001	+36	+32	+14	+45
		002	+23	+39	+14	+ 1
		003	+30	+15	- 1	0
		004	- 7	-47	-31	+ 2
		005	0	- 3	- 2	-23
		006	+13	- 2	- 5	- 7
		007	+27	+25	+ 9	+ 5
		Mean		+17.428	+ 8.428	- 0.285
086	5	001	+ 8	+13	+12	- 2
		002	- 5	+19	-10	+ 2
		003	+15	+ 8	+ 3	-20
		004	+18	+18	+ 5	-12
		005	+23	+30	+13	+ 7
		Mean		+11.800	+17.600	+ 4.600
087	5	001	+15	+18	-20	-18
		002	+ 2	- 7	-17	+11
		003	+27	+43	+20	+10
		004	- 8	- 1	-17	-17
		005	+28	+35	+ 8	- 8
		006	+30	+33	+ 6	-10
		007	+23	+33	+17	- 2
		Mean		+16.714	+22.000	- 0.428
092	7	001	+25	+30	+10	+12
		007	+11	+27	+12	- 5
		003	+30	+34	+14	+13
		004	+ 1	+37	+ 2	+24
		005	-10	-23	-23	-14
		006	+ 8	+13	+12	- 8
		007	+10	+ 4	- 6	- 2
		Mean		+10.714	+17.428	+ 3.000

Table 5 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U	Uncond.
095	6	001	+17	+26	0	-25
		002	+18	+22	+10	-16
		003	- 6	+11	+ 1	-26
		004	- 6	+ 7	- 7	-25
		005	- 1	-16	-17	- 5
		006	+19	+21	+12	-13
		Mean	+ 6.833	+11.833	- 0.166	-18.333
096	6	001	+42	+45	+34	+12
		002	-19	-14	- 6	-27
		003	+29	+18	- 1	+ 5
		004	+ 3	+ 8	-13	+ 1
		005	- 3	-23	-17	- 2
		006	- 6	- 4	- 1	-12
		Mean	+ 7.666	+ 5.000	- 0.666	- 3.833
102	6	001	+34	+30	+ 7	- 7
		002	+18	+12	-11	- 3
		003	+19	+14	-15	+11
		004	+33	+17	+17	+12
		005	+ 4	+27	- 2	-13
		006	+ 5	+ 8	-19	+ 9
		007	+ 2	- 6	-12	+ 2
		Mean	+16.428	+14.571	- 5.000	+ 1.571
103	10	001	+13	+11	- 9	-11
		002	+19	+14	+ 1	-10
		003	+27	+ 8	+11	-26
		004	+20	+23	+ 7	+ 1
		005	+ 7	+10	+ 6	- 4
		006	+ 9	+16	-22	+10
		007	+26	+27	+ 7	-16
		Mean	+17.285	+15.571	+ 0.142	- 8.000

APPENDIX G

Relationship Inventory Scores of Teachers
Classified as Static

APPENDIX G

Table 6
Relationship Inventory Scores of Teachers
Classified as Static

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U	Uncond.
003	*	001	+35	+35	+19	+ 8
		002	+ 8	+ 3	- 7	+ 3
		003	+ 8	+17	+ 1	-15
		004	- 1	+ 9	- 2	+ 3
		005	+35	+24	+ 6	+ 7
		006	+19	-14	-29	- 5
		Mean	+17.333	+12.333	- 2.000	+ 0.166
010	*	001	+ 3	- 2	+ 3	+ 6
		002	+23	+16	+ 8	+ 6
		003	+19	+21	+ 9	+14
		004	- 1	-19	- 2	-11
		005	+34	+36	+10	+ 8
		006	+11	- 4	-11	- 3
		007	+23	+19	+ 8	- 6
		Mean	+16.000	+ 9.571	+ 3.571	+ 2.000
011	*	001	+29	+16	+14	+ 9
		002	+31	+49	+17	+ 8
		003	+16	+14	-15	0
		004	+ 5	+12	- 5	-18
		005	+13	+15	-14	- 1
		006	+ 8	+20	-10	-21
		007	+21	+23	+15	+ 4
		Mean	+17.571	+21.285	+ 0.285	- 2.714
015	*	001	+16	+11	-10	+ 3
		002	-14	-33	-14	+ 5
		003	+ 3	-19	- 9	- 9
		004	+ 2	- 2	-13	- 3
		005	+30	+21	-19	- 5
		006	+15	+34	+ 4	+ 9
		007	-11	-40	-27	+23
		008	+30	+ 6	- 7	+ 1
		Mean	+ 8.875	- 2.750	-11.875	+ 3.000

* Unable to extinguish

Table 6 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U	Uncond.
017	*	001	+23	+34	+17	- 7
		002	+ 4	+13	+ 3	+ 3
		003	-13	0	-26	-14
		004	+ 4	+13	+ 1	-15
		005	+ 6	+ 3	-19	-15
		006	+ 6	+ 1	-17	-23
		007	-22	+12	- 2	- 5
		Mean	+ 1.142	+10.857	- 6.142	-10.857
023	*	001	-14	+18	-15	-35
		002	-11	+25	-23	+ 5
		003	- 7	-19	-11	+ 3
		004	- 5	- 3	- 7	- 9
		005	-19	- 6	-30	0
		006	+ 7	+ 6	+ 5	+ 6
		007	- 4	-34	-16	0
		Mean	- 7.571	- 1.857	-13.857	- 4.285
025	*	001	+36	+48	+31	+15
		002	+35	+46	+19	+14
		003	+21	+16	+ 2	- 2
		004	+21	+20	0	+11
		005	+19	+18	+ 6	- 3
		006	+16	+20	+ 1	+ 3
		007	+24	+25	+19	+12
		Mean	+24.571	+27.571	+11.142	+ 7.142
026	*	001	+ 9	+14	- 8	-11
		002	-20	-14	- 7	-18
		003	+28	+39	+10	+12
		004	+32	+26	+ 4	+10
		005	+ 5	+21	+ 7	0
		006	+ 3	-13	-14	-29
		Mean	+ 9.500	+12.166	- 1.333	- 6.000

* Unable to extinguish

Table 6 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U.	Uncond.	
027	*	001	- 6	-41	-25	+12	
		002	+11	+18	+ 1	+ 1	
		003	+32	+16	+ 5	-15	
		004	+13	+16	+10	-13	
		005	+27	+11	+10	- 4	
		006	+18	+11	+ 3	- 5	
		007	+19	+11	- 3	- 7	
		Mean		+16.285	+ 6.000	+ 0.142	- 4.428
039	28	001	+ 5	+17	+ 6	-16	
		002	+24	+19	+ 7	- 4	
		003	+14	+19	+ 4	- 4	
		004	+44	+38	+30	+26	
		005	+34	+39	+11	+10	
		006	+21	+27	+11	+ 9	
		Mean		+23.666	+26.500	+11.500	+ 3.500
		040	*	001	- 5	+ 9	+14
002	+15			+24	+14	-21	
003	+17			+ 1	-16	-19	
004	+43			+39	+18	+30	
005	-10			-35	-19	-11	
006	+20			+28	+ 4	- 6	
007	+21			+24	- 2	- 9	
Mean				+14.428	+12.857	+ 1.857	- 4.714
041	*	001	+27	+11	- 1	-22	
		002	+ 4	-33	- 4	- 1	
		003	+ 8	+ 8	- 5	-12	
		004	+27	+23	+12	- 8	
		005	+24	+ 5	- 9	-10	
		006	- 6	-28	-26	+19	
		Mean		+14.000	- 2.333	- 5.500	- 5.666

* Unable to extinguish

Table 6 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U.	Uncond.
042	*	001	+17	-16	- 7	-11
		002	+ 6	+34	+20	+11
		003	+11	+21	- 3	- 3
		004	- 1	-15	-12	-17
		005	+ 4	- 4	-13	-11
		006	+15	0	0	-10
		Mean	+ 8.666	+ 3.333	- 2.500	- 6.833
043	*	001	+11	+23	- 3	+ 8
		002	- 6	-11	-32	+ 3
		003	+11	- 2	- 4	-22
		004	+29	+24	+22	+ 5
		005	+11	+ 9	+ 6	+ 6
		006	- 3	- 5	- 9	-16
		007	- 2	-12	- 9	+ 3
		Mean	+ 7.285	+ 3.714	- 4.142	- 1.857
045	*	001	+15	+26	+ 2	+16
		002	+20	+27	+ 1	-12
		003	+32	+33	+17	- 3
		004	+15	+25	+ 2	- 8
		005	- 7	-28	-22	0
		006	+ 1	+10	+15	+12
		007	+11	-39	-15	+ 2
		008	+ 8	+13	- 5	-13
		Mean	+11.875	+ 8.375	- 0.625	- 0.750
049	20	001	+26	+30	+13	- 3
		002	+ 7	+ 1	- 8	-27
		003	+10	-11	-28	- 9
		004	+34	+52	+38	+25
		005	+25	+31	+20	+11
		006	+12	+ 9	+20	-18
		Mean	+19.000	+18.666	+ 9.166	- 3.500

* Unable to extinguish

Table 6 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U.	Uncond.
053	22	001	+25	+32	+19	+ 7
		002	+ 6	+12	+ 4	+11
		003	+10	- 8	-12	- 7
		004	+19	+18	-10	+13
		005	- 8	-18	-18	-10
		Mean	+10.400	+ 7.200	- 3.400	+ 2.800
055	*	001	+50	+54	+27	+43
		002	+ 2	+30	+ 6	- 4
		003	+14	+15	+25	- 3
		004	+10	+28	+ 4	+12
		005	+16	+20	+10	+ 6
		006	+14	+19	- 1	+ 5
		007	- 4	-13	-17	- 7
		Mean	+14.571	+21.857	+ 7.714	+ 7.428
056	*	001	+ 5	- 7	-13	0
		002	+29	+22	0	- 8
		003	-19	-28	-32	- 5
		004	+15	+10	-11	- 5
		005	- 4	+19	- 5	-27
		006	+34	+43	+ 9	0
		007	+17	+30	0	-10
		Mean	+11.000	+12.714	- 7.428	- 7.857
057	*	001	+34	+28	+ 7	+18
		002	+16	+ 7	+ 4	- 7
		003	- 4	-10	-13	-27
		004	+ 8	+13	+19	-34
		005	+ 2	+ 5	- 4	- 9
		006	+14	+16	- 1	- 3
		007	+28	+25	+18	+18
		Mean	+14.000	+12.000	+ 4.285	- 6.285

* Unable to extinguish

Table 6 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U.	Uncond.
058	22	001	- 8	- 3	- 5	- 9
		002	+11	+ 8	+ 4	+ 3
		003	+23	+16	+ 9	- 1
		004	+22	+39	+11	+ 5
		005	+ 8	+29	+19	+15
		006	+ 9	+15	+ 8	0
		007	- 3	+13	+12	- 9
		008	+29	+23	+17	- 9
		Mean		+11.375	+17.500	+ 9.375
060	22	001	+34	+32	+ 6	+ 2
		002	+13	+21	+ 1	-11
		003	+31	+44	+13	+ 1
		004	+ 6	+ 8	- 7	+ 1
		005	- 5	- 4	-16	-15
		006	- 9	-10	-27	-19
		007	+17	+15	- 4	-17
		008	+13	+13	- 2	+ 8
		Mean		+12.500	+14.875	- 4.500
062	*	001	+24	- 9	- 5	+11
		002	+38	+27	+18	+33
		003	+14	-11	-11	- 2
		004	- 6	-18	- 3	-20
		005	+18	+18	+ 6	+14
		006	+21	+18	+ 4	+15
		Mean		+18.166	+ 4.166	+ 1.500
065	*	001	+14	+29	+17	- 4
		002	+26	+30	+22	+14
		003	+27	+26	+16	+15
		004	+ 1	+ 4	-10	-16
		005	+11	+19	+ 2	+ 4
		006	-18	-30	-23	- 4
		007	+31	+28	+ 8	0
		008	-23	+ 3	-17	-30
		Mean		+ 8.625	+13.625	+ 1.875

* Unable to extinguish

Table 6 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U.	Uncond.
067	26	001	+12	+ 4	+ 1	- 3
		002	+11	- 4	- 4	-22
		003	+ 2	-10	-17	- 1
		004	+ 2	-10	-21	- 5
		005	+ 5	+15	+11	- 7
		Mean	+ 5.600	-1.000	-6.000	-7.600
068	25	001	+23	+23	+18	- 4
		002	+11	+13	+ 4	- 6
		003	+23	+11	+ 5	+16
		004	+26	+29	+ 3	- 5
		005	+11	-16	- 6	+25
		006	+ 5	-36	-30	+18
		007	+21	+21	+20	+22
		008	-14	-35	-30	-14
		009	+17	- 3	- 5	-13
		010	-11	-18	-10	0
		Mean	+11.200	-1.100	-3.100	+3.900
070	*	001	+17	+29	+ 8	+13
		002	+28	+34	+ 7	+ 7
		003	+26	+ 9	+ 3	+30
		004	+25	+22	+15	+18
		005	-17	-11	-15	+30
		006	+12	+ 4	-20	- 5
		007	+23	+ 34	+22	+ 7
		Mean	+16.285	+17.285	+2.857	+14.285
077	*	001	- 2	-17	-25	- 8
		002	+32	+17	+10	+19
		003	- 4	+28	+ 6	+ 7
		004	+27	+33	+ 5	+11
		005	+16	+28	0	- 6
		006	- 8	0	- 9	- 6
		Mean	+10.166	+14.833	-2.166	+2.833

* Unable to extinguish

Table 6 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U.	Uncond.
078	*	001	+ 1	+11	-31	-23
		002	+33	+14	- 7	+ 2
		003	+17	+32	+ 1	-26
		004	+17	+10	-19	- 8
		005	+10	+ 5	- 8	+ 6
		006	+21	-19	-18	+10
		Mean	+16.500	+ 8.833	-13.666	- 6.500
088	*	001	+23	+15	+ 2	- 2
		002	+ 6	+ 7	-11	+13
		003	- 8	-18	-20	+ 4
		004	+29	+31	+19	+ 5
		005	+26	+18	- 3	- 8
		006	+33	+33	+16	+ 7
		007	+33	+45	+31	+19
Mean	+20.285	+18.714	+ 4.857	+ 5.428		
089	*	001	+25	- 9	- 6	-14
		002	+22	+ 1	- 3	-14
		003	+26	+10	-25	-18
		004	+31	+33	+10	- 6
		005	+21	+27	+13	+ 1
		Mean	+25.000	+12.400	- 2.200	-10.200
090	*	001	+16	+27	+20	+ 7
		002	+43	+34	+15	+ 3
		003	+32	+27	+19	- 2
		004	+20	+ 2	-19	+16
		005	+12	+15	- 5	-32
		006	+14	+ 2	- 9	- 9
		007	+33	+35	+11	+13
Mean	+24.285	+20.285	+ 4.571	- 0.571		

* Unable to extinguish

Table 6 Continued

Teacher Subject	Set Extinction Score	Student Subject	Cong.	Level of Reg.	Emp U.	Uncond.
091	*	001	+ 2	+ 4	- 7	+ 5
		002	- 3	-41	-20	- 4
		003	- 6	- 4	- 6	-11
		004	+ 4	+ 5	+ 4	-11
		005	+18	+16	+ 6	+13
		006	- 9	-25	-15	- 6
		Mean	+ 1.000	- 7.500	- 6.333	- 2.333
093	26	001	+14	+18	+ 9	- 5
		002	+ 5	- 6	- 9	-17
		003	+ 5	- 2	- 1	-13
		004	+36	+40	+11	+ 7
		005	- 8	-11	- 9	+ 2
		006	+ 5	+27	+ 1	+12
		007	- 6	-42	-21	- 6
Mean	+ 7.285	+ 3.428	- 2.714	- 2.857		
099	*	001	+35	+43	+25	+23
		002	+45	+52	+36	+25
		003	+19	+30	+ 8	- 7
		004	+44	+48	+31	+42
		005	+28	+29	+15	+25
		006	+37	+35	+18	+11
		Mean	+34.666	+39.500	+22.166	+19.833
101	*	001	+19	+29	+23	+12
		002	+ 8	+10	-11	+ 7
		003	+28	+29	+24	+12
		004	- 3	+ 9	- 6	-18
		005	+ 2	- 8	- 7	-34
		006	-23	-17	0	-28
		007	+11	+15	+ 8	+ 6
Mean	+ 6.000	+ 9.571	+ 4.428	- 6.142		

* Unable to extinguish

APPENDIX H

Sample Letter to Teachers

APPENDIX H

Sample Letter to Teachers

27 February 1974.

Dear Colleague:

Your principal has granted me permission to carry out a research project at your high school. Now I must ask you as a teacher for your personal assistance.

The research project involves testing both teachers and some of their students.

Your part in the research will involve approximately half an hour of your time. Because I will administer the test to you individually, I must ask to do this during one of your free periods. The test will consist of a visual presentation of stimuli to which you will be asked to respond. All information received will be held in strictest confidence and reports will be made for the group as a whole, and not for any individual.

Later, on March 28, I will ask for your cooperation in allowing me to choose students from one of your classes to fill out a standard test questionnaire. This will require about one period for the students.

A counsellor in your school is assisting in the organization of the project. If you are unwilling to participate, please contact the Guidance Office before 3:00 p.m., Friday March 1. If they have not heard from you by this time, I will assume that you are willing to participate and will draw up a schedule for testing between March 4 and March 28.

Thank you for your cooperation.

Sincerely,

Helen Bunn.