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A PERSONAL CONSTRUCT APPROACH FOR EXAMINING THE ROLE OF THE SCHOOL PSYCHOLOGIST

by

© MICHAEL THOMAS REYNOLDS

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ABSTRACT

Literature reviewed in the area of school psychology indicated a growing interest in defining roles psychologists in the school should assume and how training programs can best develop these roles. The majority of this research focused on the functioned aspect of the role, rather than the characteristics underlying its development. The purpose of the present study was to examine some characteristics of the role of psychologist in the schools by applying the theory and methodology of George Kelly's personal construct psychology.

The School Psychologist's Role Grid was constructed to examine subject's perceptions of how characteristic selected representative constructs were to some aspects of the role of psychologist in the schools. Two groups were used, one containing subjects who were experienced school psychologists, and the other containing students in training, in an effort to determine commonalities and differences in the structure and content of the role. Kelly's clinical method of analysis was applied to describe constructs characteristic of the role descriptions employed in the study. General trends were then examined to determine differences in the role subsystems for both groups.

Investigation of the results indicated tentative support for the existence of a specific subsystem for the role

of psychologist in the schools. Subjects who had previous work experience were able to make more extreme and consistent characterizations than their inexperienced counterparts. More agreement was evident for both groups when role descriptions contained a positive aspect. Results were related to personal construct psychology. The limitations and implications of these findings were then discussed and suggestions made for further research.

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CHAPTER I

INTRODUCTION

Throughout recorded history, scholars have addressed the problem of defining the nature of man. Until the late nineteenth century the majority of this discussion remained within the domain of philosophy. Beginning with the work of Freud, whose theory arose to some extent as a reaction to the early structuralists, a new field emerged within psychology. A survey of personality texts (e.g. Hall and Lindzey, 1970; Pervin, 1975) illustrates the extent to which conceptions differ today as to the development, structure and nature of the concept 'personality' and how the various theorists relate their conceptions to the understanding of man's nature.

George Kelly's Psychology of Personal Constructs (1955; 1963) is the theory focused on in the ensuing discussion. Over the past fifteen years Kelly's (1955) framework has gradually begun to attract a following who have generated research in a wide range of areas (Bannister and Fransella, 1971; Adams-Webber, 1979). Personal Construct Psychology is unusual in that the nature of the theory, its underlying philosophical assumptions, its formal attributes and methodology were presented in complete form in the original two volume work (Kelly, 1955). The inclusive nature of the presentation is in keeping with Kelly's philosophical position of constructive alternativism which

assumes "that all of our present interpretations of the universe are subject to revision or replacement" (Kelly, 1963, p. 15). For Kelly, the formulation of a theory of personality is the theorist's construction or interpretation of the constructions of other person's behavior in the world. He proposes that each man is attempting to make sense out of his world, and that the task of a theoretical framework is doubly reflexive in that it represents a 'metaconstruction' of other men's interpretations, and further is itself a direct reflection of the particular theorist's construction of his perceptions.

The essential concept of Personal Construct Psychology is the 'construct' which Kelly (1955) has described as:

> Man looking at his world through transparent patterns or templates which he creates and then attempts to fit over the realities of which the world is composed... Let us give the name constructs to these patterns that are tried on for size. They are ways of construing the world. (pp. 8-9).

The formal structure of the theory represents an attempt to define and systematically explore the structure which arises from these constructs and is presented in the form of a fundamental postulate and eleven corollaries. Kelly (1955) has suggested that the formal attributes of the theory can be operationalized through the use of his Role Construct Repertory Test, which may be used to generate formal (mathematical) information concerning the structure of the construct system, or in a clinical (descriptive) fashion which focuses on the content of the system.

Two reviews of personal construct psychology research (Bannister and Fransella, 1971; Adams-Webber, 1979) indicate that the majority of the research arising from the theory base to date has centered on formal analysis and the generation of new variations of repertory grid methodology (cf. Bannister and Mair, 1968). Fifteen years ago Bonarius (1965) observed that while a great deal of work was being done to define and quantify formal properties of the repertory grid, very little research attempted to relate these findings back to the original fundamental postulate and eleven corollaries except in an expost factor manner. The present review finds that this is generally still the case, with some notable exceptions.

There has recently been some research in the area of clarifying and defining the roles and training of helping professionals (Liftshitz, 1974; Ryle and Breen, 1974; Adams-Webber and Mirc, 1976 ... cited in Adams-Webber, 1979). The major theme running through these studies is that if our construct systems define our roles, and determine to a large extent how we will perceive ourselves and interrelate with others, it will be a valuable exercise to make explicit these construct systems. It is suggested that the clarification of the construct subsystem relating to the role of 'helping professional' may facilitate the process of training new professionals, and allow those individuals who supervise this training to make explicit what role aspects they feel are necessary for effective performance of the role.

Literature in the area of school psychology indicates a growing need to more clearly define the role and necessary prerequisites for training school psychologists. Articles by Hohenshil (1974), Telzrow (1975) and Reger (1975) to mention a few, offer suggestions as to what role the school psychologist should assume. In general, this literature focuses on defining role in terms of function (i.e. the school psychologist as: "assessment expert", "consultant", etc.). This literature review did not find any research to date which explicitly addresses the questions of what characteristics training schools feel necessary for effective training of school psychologists and whether the trainer's perceptions of the necessary characteristics are in agreement with those of the trainee.

The Purpose of the Study

If, as personal construct theory maintains, the individual's construct system serves as an accurate reflection of his perceptions and behavior in the world, an examination of the construct systems of individuals involved in the teaching and training of school psychologists may help clarify those aspects which are characteristic of the role of the school psychologist. The present study attempts to apply personal construct psychology's theory and methodology through the construction and utilization of an instrument called the School Psychologist's Role Grid to the problem of determining what constructs trainers feel are necessary in various aspects of the role of school

psychologist and whether any agreement exists between their perceptions and those of the trainees in the school psychology program in the Department of Educational Psychology.

Kelly's personal construct psychology, which represents the framework of the present study, will be reviewed in detail, as will the instrument which has been constructed using its guidelines. Results from the School Psychologist's Role Grid will then be presented in a clinical (descriptive) fashion and discussed in terms of their implications for training school psychologists at the University of Alberta and where possible what global implications these results might have for more clearly defining the role of the school psychologist in general.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

An initial examination of various survey texts in personality theory (Hall and Lindzey, 1970; Levy, 1970; Pervin, 1975) reveals an array of differing conceptions concerning the development, structure and nature of the concept 'personality' and its relationship to the human being. One such survey (Hall and Lindzey, 1970) suggests that "no substantive definition of personality can be applied with any generality", concluding that "personality is defined by the particular empirical concepts which are a part of the theory of personality employed by the observer" (p. 9). This observation is consistent with Kuhn's (1970) 'early developmental stage', which he characterizes as a number of disparate lines of investigation, actively striving to preserve their autonomous and competitive positions. The onus thus seems to be on the individual to select the theory which best answers the questions being posed by him within his domain of interest.

One such theory base, Personal Construct Psychology (Kelly, 1955; 1963), has recently begun to generate a body of research in a wide range of areas (Bannister and Fransella, 1971; Adams-Webber, 1979). Kelly (1961) defines personality as:

> our abstraction of the activity of a person and our subsequent generalization of this abstraction to all matters of his relationship

> to other persons, known and unknown, as well as to anything else that may be particularly valuable. Thus there are three main points to be kept in mind when dealing with personality; (1) It is a venture in abstract thinking undertaken by psychologists who examine the processes of the individual person, and not an object simply to be discovered by them; (2) it cannot ignore the person's relationship to other persons; and (3) it is bound to be value laden. (cited in Bannister and Mair, 1968, p. 44).

If the implication of this definition was that it could stand alone without elaboration, it would justifiably be open to criticism on many grounds. The opposite seems to be the case in the psychology of personal constructs however, with Kelly stating explicitly his perspective on the nature of theory, the philosophical assumptions underlying his theory, the formal constructs which constitute its structure and possible methodologies to operationalize and evaluate it.

The following sections will review each of these areas in some detail and present related research where it is applicable. The theory and research will then be critically evaluated. Finally, an application of a possible utilization of personal construct theory within the area of school psychology will be suggested.

Personal Construct Theory and Related Research

Philosophical Position

Much like Martin Luther's proclamation that each man is his own priest, Kelly construes each man as a

scientist. This 'man the scientist' model does not accept the notion that there is an exclusive society of science with clearly defined rules for membership. Rather, the challenge rests with the individual to actively explore and expand his representation of an everchanging world, which he perceives in a fashion that is unique to him.

Kelly (1955; 1963; 1970) has labelled this position constructive alternativism, stating that "we assume that all of our present interpretations of the universe are subject to revision or replacement" (Kelly, 1963, p. 15). This statement is not meant to imply a solipsistic framework in which external reality exists only as man creates it. Kelly maintains the existence of an external reality "but looks to man to propose what the character of its (sic) import may be" (Kelly, 1973, p. 209). Kelly (1955) has called these propositions 'constructs' which he describes as "man looking through transparent patterns or templates which he creates and then attempts to fit over the realities of which the world is composed" (pp. 8-9). The term 'construct' will be elaborated in greater detail in later sections of this chapter in which the formal structure of personal construct psychology will be discussed. It has a number of important implications for Kelly's philosophical position.

Most important is the implication that man is not a reactive organism whose behavior is a function and product of the contingencies the environment place upon him

(cf, Skinner, 1953). Rather 'man the scientist' is an active organism who structures and makes sense of his world by imposing 'constructs' on it, which take the form of hypotheses, subject to validation or reconstruction as he behaves and interacts in the world. Therefore, the study of man's behavior, which is often termed psychology, must take into account the construct system(s) of the organism being examined. Further, Kelly (1955) maintains that since an infinite array of constructions are possible, those scientists called psychologists must accept that their construction of human behavior is like any other, subject to revision, and perhaps eventually to invalidation.

Reviewing trends in present research in psychology Kelly, (1970) suggests that in many cases, notably the behavioral schools, the underlying philosophical assumption seems to be what he calls the "accumulative fragmentalism", which is truth collected piece by piece. Although not arguing against the collection of data, he proposes that the possibility exists that it may become the end rather than the means of achieving the goal of understanding human behavior. This observation is similar to Hall and Lindzey's (1970) notion of "single domain theories" which restrict themselves to studying clearly delimited aspects of behavior , with integration occurring sometime in the future. While there are clear benefits in terms of operationalizing and empirically quantifying hypothetical constructs in a limited domain, Kelly (1955) main-

tains that without a metastructure through which all of the pieces can fit together, they will remain isolated pieces. Kelly's (1955) personal construct psychology is offered as a possible metastructure for examining human behavior.

In summary, Kelly (1955; 1963) assumes that the universe is real and subject to an infinite array of constructions that man imposes on it. Rather than behavior being determined by the environment, it arises as a function of each 'man the scientist's' construction system, which he utilizes to understand his world through a series of successive approximations. Further, these construct systems are subject to revision, implying that no individual need be a "victim of his past" (Kelly, 1963, p. 43), although the range of applicability of the present system will in part determine its expansion and modification. Life for Kelly is characterized by the capacity of the living thing to represent its environment, which is a real world, through a hierarchically organized construct system, which is real to each individual. Thus both nature and human nature are phenomenologically existent.

In terms of its relationship to other philosophical systems, Kelly's (1955) constructive alternativism falls within the area of epistemology called gnosiology which he defines as the "systematic analysis of the conceptions employed by ordinary and scientific thought in interpreting the world, and including an investigation of the art of

knowledge, or the nature of knowledge as such" (Kelly, 1963, p. 16). In contrast with the relatively pure neo-phenomenological approaches of such theorists as Rogers, Kelly's philosophy utilizes pragmatic logic and empiricism (cf, his conception of 'man the scientist') to elucidate the phenomenological field (i.e. the construct system) of the individual.

The philosophical position of construct alternativism may be likened to a superordinate construct in Kelly's construction of the world, which in turn generates the formal structure of personal construct theory. As was the case with his statement of the philosophical assumptions underlying the theory, Kelly (1955) makes explicit his conception of how this theory should be stated and operationalized. The fundamental postulate and eleven corollaries, represent in toto the formal structure of the theory base and are meant to stand alone. The next sections will examine this formal structure and review representative research relevant to each aspect of it.

The Theory: Concepts and Formal Constructs

In the first volume of The Psychology of Personal Constructs (1955) Kelly expresses in detail his position on the nature of theory in psychology. At one point he states:

> Theories are the thinking of men who seek freedom amid the swirling events. The theories comprise prior assumptions about certain realms of these events.

> To the extent that the events may, from these prior assumptions, be construed, predicted, and their relative courses charted, men may exercise control and gain freedom in the process. (Vol. 1, p.22).

For Kelly, then, good theory not only allows men to make sense of the world, but also allows limits to be expanded so that growth can occur. It acts as a tool for anticipation of the future. For this expansion of the limits of knowledge to occur a true theory must be stated at a high level of abstraction, in order for it to rise above the constraints of substantive content, so as not to be limited by them. Bannister and Fransella (1971) introducing personal construct psychology state: "A true theory must define its own form - it must in effect delineate psychology" (p. 15). On the other hand, theory can be couched in a way that is amenable to empirical validation through hypothesis testing, although the collection of findings should not obscure what they originally set out to validate (i.e. the theory base).

Most important for Kelly is that a good psychological theory should be reflexive in nature. That is, a psychological theory is a construction of man's construing, which is itself always subject to reconstruction. Personal construct theory attempts to provide a framework within which people's behavior can be explained and understood, while at the same time attempting an exploration and exposition of the theory itself. Kelly (1969) suggests "science itself is a form of human behavior... why then, should we

feel compelled to use one set of parameters when we describe man-the-scientist and another set when we describe man-the-laboratory-subject" (p. 97).

Finally, Kelly (1963) maintains that a theory must have a focus of convenience, or a specific area where the theorists' attention will be directed. Personal construct psychology's focus is "the psychological reconstruction of life" (Kelly, 1963, p. 23) and originally arose from Kelly's experience as a psychotherapist. The majority of Kelly's (1955) second volume addresses 'fixed role therapy' and its concommittent diagnostic constructs. While these aspects will be discussed briefly in terms of research related to the formal constructs of the theory, they are in general outside the domain of the present discussion. The reader wishing a detailed discussion is referred to Kelly (1955; 1969). It is hoped that the following discussion and review will demonstrate the extent to which the original theory has been generalized to other areas.

The Fundamental Postulate states that "a person's processes are psychologically channelized by the ways in which he anticipates events".[1] The term "person" in this framework specifies that this theory will refer to the human organism as an event constantly in process. Therefore, entry in the system is a point in process, rather

1. The following discussion and definition of the fundamental postulate and its corollaries is drawn from Kelly's The Psychology of Personal Constructs (1955).

than an inert state, which to Kelly infers that it is not necessary to invoke any special notions such as dynamics, drives or motivation to explain why the organism does not remain inert. The term "channelized" explains the direction of the processes, not the transformation of states into processes as the theoretical focus, suggesting a network of pathways, flexible but structured, which both facilitates and restricts a person's range of action. "Anticipates" indicates the predictive and motivational features which point toward the future, that is "anticipation is both the push and pull of personal constructs" (Kelly, 1955, p. 49). "Events" stipulates that the constructions relate to the real world of events.

The final phrase "ways of anticipating events" has a number of implications, the first of these being that the psychological initiative always remains a property of the person. The basic determinants of the course of human action are not imbedded in past or future events, but rather in the way the individual organism anticipates events. The confirmation or disconfirmation of one's predictions are accorded the role of the psychologically significant processes in the person's development and functioning at both the intraindividual and the interenvironmental levels. Kelly (1973) states that:

> thus we envision the nature of life in its outreach for the future and not its perpetuation of its prior conditions or in its incessant reverberation of past events (p. 212).

It is with this fundamental postulate the Kelly illustrates and defines his conception of "man the scientist".

The Construction Corollary states that "a person anticipates events by construing their replications". Thus, basic to man making sense of his world and life in it, is the continual detection of repeated themes, and categorizing of these themes, and the segmenting of his world in terms of them. Kelly maintains that events never repeat themselves, but we can anticipate them through our constructions which allow us to infer similarity with some events while discriminating these from others.

The essential term within this corollary is 'construing', which implies the application of a construct to an event in the world. "A construct is a way in which some things are construed alike and yet different from others" (Kelly, 1955, p. 105). It is composed of a 'likeness' and a 'contrast' pole which differentiates it from the term 'concept' as it is used in conventional logic. Constructs abstract repeated properties of events and imply that the replicated properties may all reappear in another event. Prediction is therefore implicit in construing.

Furthermore, constructs provide the means of binding or grouping events so that they become predictable, manageable, and controllable. A person controls his own destiny "to the extent that he can develop a constructive system with which he identifies himself and which is sufficiently comprehensive to subsume the world around

him" (Kelly, 1955, p. 127). This definition will be elaborated in the following corollaries.

There has been no specific research addressing the Construction Corollary directly. At a more general level Kelly's (1955) original work and subsequent research by Bannister (1962a; 1962b), summaries of personal construct research by Bonarius (1965), Bannister and Fransella (1971) and Adams-Webber (1979) and Bannister and Mair's (1968) book on methodology all indicate that it is possible to examine individual construction systems.

The Individuality Corollary states that "persons differ from each other in their constructions of events". Thus two individual's perceptions of the same situation will never be identical due to their differing constructions. The present review of the literature has not disclosed any research which directly relates to this corollary.

The Organization Corollary states that "each person characteristically evolves, for his convenience in anticipating events, a construction system embracing ordinal relationships between constructs." A system of constructs minimizes the incompatibilities, and involves a hierarchy of constructs, which can be differentiated into superordinate and subordinate positions.

Several studies have adopted a hierarchical approach to assessing the structure of an individual's personal construct system. Smith and Leach (1972) have developed a method of 'hierarchical analysis' based on a repertory

grid format for determining individual's cognitive complexity. The research which related most closely to the organization corollary is the work of Hinkle (1965) which has been elaborated by Fransella (1972) and Crockett and Meisal (1974). In his original validation study (summarized in Bannister and Mair, 1968) Hinkle asked twenty-eight university students to nominate ten persons whom they knew well including themselves. Kelly's (1955) method of triads was employed to elicit ten bi-polar constructs from each individual. Then every subject was asked to indicate which pole of each of the constructs was clearly descriptive of the kind of person he would like to be. The subject was then asked to explain his preference, which elicited a superordinate construct. Using this laddering technique (see Bannister and Mair, 1968) Hinkle was able to determine the relative position of constructs within an individual's hierarchy, thus lending support to Kelly's (1955) conception of the ordinal relationship between constructs.

Fransella's (1968; 1969; 1972) work with stutterers also lends support to the concept of hierarchical integration of constructs. Fransella modified Hinkle's (1965) Implications Grid into a technique usually referred to as the Bi-Polar Impgrid which allows for the implications of both poles of each construct to be elicited. The focus of this research was to determine whether any specific construct subsystems were developed by stutterers to determine

their verbal behavior. Fransella's (1972) basic hypothesis was that stuttering would not diminish until the person construed himself to some extent at least as a fluent speaker. Results indicated that a superordinate construct "fluent-not fluent" was evident in the stutterer sample and that there were a greater number of implications arising out of this type of superordinate construct for the stuttering (as opposed to the nonstuttering group). The Bi-Polar Impgrid revealed elaborate subsystems relating speech to social behavior, self concept and in general to the stutterer's functioning in the world. Therapy was conducted with the focus being to modify the subjects' construction system so that they would move towards defining themselves at the "fluent" pole of the superordinate construct. Results indicated that fluent behavior increased in proportion to the number of implications connected to the "fluent" pole as illustrated in the Bi-Polar Impgrid. While this research is more directly relevant to the Choice Corollary, it does indicate that the relationship among constructs in the hierarchy can be illustrated, measured, and modified, with important consequences for behavior.

Honikman (1976, cited in Adams-Webber, 1979) has applied personal construct theory and repertory grid methodology to the problem of how architects can understand and respond to the needs of their clients. He carried out a study designed to identify the superordinate constructs used by people to evaluate specific areas of their homes

such as the living room, as well as the subordinate constructs used to elaborate the implications of their superordinate constructions in terms of the physical features of the area. While this research has been criticized in terms of its applicability to design in architecture (Stringer, 1976), it does present some confirmation of the notion of a hierarchy of constructs which can be measured for different individuals.

Shotter (1970) suggests that "the system so produced is best described as a system of compartments, where the compartments are distinguished from one another in terms of binary distinctions, i.e. constructs, and where each compartment may be identified by the relation that it bears to others in the system" (p. 243). Each of these 'compartments' can be viewed as a logical possibility for anticipating a given event within the explicit framework of a person's construct system. The individual arranges these compartments so he can move from one to another in some orderly fashion. For example Shotter (1970) notes that a system which consists of only eight constructs, each involving a single binary distinction, can encompass the entire sound system of a language with about forty distinct phonemes with approximately fifty percent redundancy.

In summary, although the volume of research is not great, what has been done seems to indicate support for the Organization Corollary. In particular the work of Hinkle (1965) and Fransella (1972) lends at least partial

support to Kelly's suggestion that each person sets up a characteristically personal hierarchical system of constructs where some constructs are more important than others.

The Dichotomy Corollary states "a person's construction system is composed of a finite number of dichotomous constructs". This might be interpreted as saying that a construct system is made up of nothing but constructs, and its organization is based on constructs about constructs, which may be set up on concretistic pyramids or abstractly cross-referenced in a hierarchical set of relationships. No man's thinking is, however, completely fluid and none experiences infinite possibilities of manoeuvre. Although the constructs themselves are dichotomous, and serve as axes of reference enabling the person to group some elements and discriminate these from others, an absolute "black - white" series of classifications is not implied. No one construct is isolated from all others in the hierarchy, which permits the individual to include 'shades of grey' (i.e. relative rather than absolute discriminations) in their construing of the world around them.

In discussing the implications of his 'dichotomy corollary' Kelly (1955; 1969) argues that the contrast pole of a personal construct is as necessary as the similarity pole in defining its meaning. He submits that the underlying relation between the alternative poles of each construct is essentially one of binary opposition. That

is, every construct involves a single bi-polar distinction, and it is meaningful insofar as it serves as the basis of perceived similarity and contrast among the elements to which it is applied. Within the minimal context of any construct, one of its poles represents a likeness between at least two elements, and its opposite pole represents their contrast to at least one other element. Kelly assumes that the dichotomous nature of personal constructs is an essential feature of our thinking, and that no construct can be fully understood without including both poles. "The Dichotomy Corollary assumes a structure of psychological processes which lends itself to binary mathematical analysis" (Kelly, 1955, p. 63).

While Kelly (1955) assumed that the distribution of elements with respect to alternative poles was 50/50 there is considerable evidence now that this is not the case. One series of experiments (Adams-Webber and Benjafield, 1973, 1974; and Benjafield and Adams-Webber, 1975, 1976) suggests that subjects tend to allot figures to positive poles sixty-two percent of the time and to their negative opposites thirty-eight percent of the time. Benjafield and Adams-Webber's (1976) 'golden section' hypothesis arises from these findings and states that there is an ideal proportion (i.e. 62/38) of positive (similarity) to opposite (contrast) choice of poles. Adams-Webber (1979) presents an extensive review of research (much of it unpublished) relating to this hypothesis. Finally, there exists a sub-

stantial amount of research concerning the mathematical properties of the Dichotomy Corollary (cf. Bannister and Mair, 1968) which lends support to the dichotomous nature of constructs.

There is also some evidence supporting Kelly's notion that a finite number of constructs are available. Hunt (1951) found that the number of constructs which could be elicited from each subject was quite limited. Not many new constructs appeared after some twenty or thirty triads had been presented. Very few novel constructs emerged following the fortieth triad. Bieri and Blacker (1956) also found that individual subjects tend to be highly consistent over a period of two weeks with respect to the number of different constructs which can be elicited from each of them by the presentation of twenty triads made up from the same list of figures. Crockett (1965) has used the number of constructs elicited from an individual as one index of the degree of 'differentiation' of his system.

Bannister and Mair (1968) conclude on the basis of the evidence summarized above that grids pull out a limited repertoire of constructs that the subject has available to him rather than what they term "the everlasting pages of an infinite personal directory" (p. 158). Thus the research, although still fairly scarce, lends support to this corollary.

The Choice Corollary states "a person chooses for himself that alternative through which he anticipates the

greater possibility for the elaboration of his system". Elaboration may take the form of definition (confirming in greater detail aspects of experience already actively construed) or extension (increasing the range of the construct system by exploration of partially understood areas). Kelly (1966) states:

> in our assumptive structure we do not specify nor do we imply, that a person seeks 'pleasure', that he has special 'needs', that there are 'rewards', or even that there are 'satisfactions'... To our way of thinking, there is a construing movement toward the anticipation of events, rather than a series of barters for temporal satisfactions and this movement is the essence of human life itself. (p. 68).

It is evident that Kelly considers this corollary to be crucial to the development of the construct system. There is, however, a paucity of research that relates directly to it. Fransella's (1968, 1972) research on stuttering illustrates the potency of the individual's choice (which is not necessarily a conscious decision). The person who stutters, according to Fransella, defines himself in terms of the contrast pole of the fluent-not fluent superordinate construct. His 'choice', or elaboration and definition of his system, relates back to the 'not fluent' pole, which, in effect, serves to entrench his stuttering behavior. The stutterer has developed a specific subsystem of constructs, the focus of convenience of which is his speech. The subsystem has implications for his social behavior and allows him to make predictions concerning its effect

on other individuals. Modification of the subsystem, although in many cases desirable, must be at the superordinate construct level such that a 'non-stutterer' subsystem can be elaborated, and fluency increased.

While the above studies do indicate some degree of support for the Choice Corollary, research has not yet supported Kelly's (1966) assumption that the elaborative choice represents a movement which "is the essence of life itself". As is the case with some of the other corollaries (notably the construction, individuality, and range corollaries) support takes a theoretical form in which the existence of the concepts is argued at a conceptual level (e.g. Bannister, 1970, 1977; and Bannister and Fransella, 1971), but little evidence of empirical support is provided.

The Range Corollary states "a construct is convenient for the anticipation of a finite range of events only". That is, each construct is assumed to have a limited range or convenience which comprises all those things to which the individual would find its application useful.

In addition, each construct is assumed to have a particular 'focus of convenience' which is defined as that sector of its range of convenience wherein it is maximally useful.

The concept 'range of convenience' has been applied to a number of studies utilizing clinical samples. Makhlouf-Norris et al (1970) report that 'monolithic'

conceptual structures are found primarily in the personal construct of obsessive-compulsive neurotics. In the face of increasing ambiguity, the subjects were observed to constrict the range of application of each of their constructs more and more, until the range of convenience became so narrow that there was little overlap between different constructions of events. Radley (1974) lends support to Kelly's (1961) observation that 'schizoid persons have a complex repertory, but their constructs lack sufficient ranges of convenience to enable the person to relate one of them to another'. That is, he withdraws more and more in a narrow, constricted, but still predictable world. However, all events outside the impoverished range of convenience of his highly truncated system will remain 'meaningless' to him in the sense that he cannot abstract palpable features of regularity from them (Radley, 1974). Bannister's (1960, 1962(b), 1963, 1965) early research on schizophrenic thought disorder reports similar findings to those reviewed above. Thus there is some evidence (at least in clinical populations) that the Range Corollary leads to testable hypotheses.

The Experience Corollary states "a person's construction system varies as he successfully construes the replication of events." This corollary embodies Kelly's conception of development which he construes "as a cycle embracing five phases: anticipation, investment, encounter, confirmation or disconfirmation and constructive revision" (Kelly,

1973, p. 215). Transition in the construct system may come about by the construct being employed at a different point in the constellation, its assuming the role of a different kind of distinction, and/or its relations to other constructs being altered. Thus constructs do not assume the role of static referrents, but are themselves always in process.

This corollary in conjunction with the Organization, Choice and Fragmentation corollaries may be considered (at least implicitly) as a model for the development of the construct system. Kelly (1955) contends that "if we are to see a person's psychological processes operating within a system which he constructs, we need also to account for the evolution of the system itself in a similarly lawful manner" (p. 77). Adams-Webber (1970a) suggests that the general curve of development of an individual's personal construct system involves the progressive differentiation of its structure into independently organized subsystems and the increasing integration of the operations of these subsystems within the system as a whole. This hypothesis contains explicit parallels with the developmental models of both Werner and Piaget. For instance, Werner's (1957) 'orthogenic' principle states that all cognitive development proceeds from states of relatively global, undifferentiated structures towards states of increasing differentiation and hierarchical integration of concepts. Crockett (1965) elaborates some of the implications of Werner's

principles within the specific framework of personal construct theory. Piaget (1960) argues that psychological structures evolve through a process of differentiation and reintegration of operational 'schemata' at increasingly higher levels of abstraction. Some developmental studies have been done using children as subjects but these relate directly to the development of sociality and will be discussed in relation to that corollary. In addition, much of the research discussed in the Organization Corollary (e. g. Fransella, 1968, 1969, 1972; and Hinkle, 1965; and Honikman, 1976) lends support to the notion that the construct system varies as construction occurs.

The Modulation Corollary states "the variation in a person's construction system is limited by the permeability of the constructs within whose range of convenience the variants lie". This corollary is an attempt by Kelly to define a parameter for change. The construct 'permeable-impermeable' refers to the degree to which a construct can assimilate new elements within its range of convenience, and generate new implications. Thus the core constructs which govern a person's maintenance processes are relatively impermeable when compared to those constructs of a more peripheral nature. According to Kelly, a construct is permeable if it allows new experience and new events to be discriminately added to those it already embraces. Thus the Modulation Corollary implies that the more permeable the superordinate constructs within a person's system, the

greater the amount of systematic change that can take place within the substructures which those constructs subsume.

Kelly's model of development again closely parallels that of Piaget (1960) who suggests that cognitive development proceeds continually towards an 'ideal stage' of functional differentiation between schemata and their logical integration at sufficiently high levels of abstraction such that the introduction of novelty does not create any disequilibrium. A newly assimilated experience will no longer alter mental structures which refer to it, nor the relation of mental structures to each other, because at the highest level of abstraction thought is 'reversible' and a compensatory thought is available with which equilibrium can be restored. That is, Piaget (1960) suggests that his principle of reversibility implies an equilibrium such that the structure of operational wholes is conserved while they assimilate new elements.

In a study of the tendency of subjects to repeat the same constructs on different occasions Fjeld and Landfield (1961) administered the Role Construct Repertory Test twice, to each of three groups composed of twenty undergraduates. When the same figures were used to elicit constructs on both occasions (Group I), subjects exhibited a high degree of agreement between the two sets of constructs they employed ($r=0.78$). When subjects were given the same list of role titles, but asked to nominate different figures (Group II) there was again a high degree of agreement

between the two sets of constructs elicited from them (r=0.79). Finally, when subjects were given a blank form of the test on the second occasion and instructed to re-administer it to themselves (Group III), the results were about the same as the other two conditions (r=0.80). Bonarius (1965) concludes that this evidence suggests that the constructs which are elicited by this procedure are relatively permeable, that is "open to the addition of new figures beyond those upon which they have explicitly been formed" (p. 5), since subjects are able to apply the same constructs to different figures when retested.

Makhlouf-Norris et al's (1970) research on obsessional compulsive neurotics suggests that the impermeability of superordinate constructs may underly the development of nonarticulated (either 'monolithic' or 'segmented') conceptual structures. Bannister's (1963, 1965a) research on thought disorder in schizophrenics suggests that as the individual continues to loosen his definitions of his constructs in terms of their relationship with other constructs in the face of environmental variation. That is, his superordinate constructs progressively 'loosen' and become impermeable to novel information.

In summary, there is some evidence using 'normal' subjects (e.g. Fjeld and Landfield, 1961) and clinical subjects (Bannister, 1963, 1965a; Makhlouf-Norris et al, 1970) that the permeability of the individual's superordinate constructs is an important prerequisite for adap-

tation to the environment. Further, there is some evidence that as these constructs become more impermeable pathology begins to emerge.

The Fragmentation Corollary states: "a person may successively employ a variety of construction subsystems which are inferentially mutually incompatible with each other". Kelly (1955) assumed that the degree of systematization in a set of interrelated constructs can be enhanced by limiting the domain of events in which it is customarily employed, with the superordinate constructs being used to resolve apparent inconsistencies at lower levels of abstraction. Thus, the more differentiated the structure of an individual's personal construct system, the more 'parallel processing' (Neisser, 1967; Ashley, 1968) of information input, in addition to its sequential processing, the less the demands created for the system as a whole.

It was Bieri (1955) who first introduced the notion of assessing the level of development of an individual's 'system of cognitive dimensions for construing behavior' in terms of its relative degree of differentiation, which he called 'cognitive complexity'. In general, subjects who tend to sort figures in a near identical way on several constructs are designated 'cognitively simple' (undifferentiated) in opposition to subjects who tend to sort figures differently on every construct (cognitively complex). Bieri (1955) reports a test-retest correlation of this

measure of 0.78 when the test was administered at the beginning and end of the session. Bavelas et al (1976) found a test-retest correlation of 0.67 over intervals which averaged several weeks. Bieri's (1955) original work has been applied to the area of 'person perception' (Adams-Webber, 1969, 1970a; Honess, 1976) and will be discussed in relation to the Sociality Corollary.

Bannister and co-workers (Bannister, 1960, 1962b; Bannister, Fransella and Agnew, 1971; Bannister, Adams-Webber, Penn and Radley, 1975) have demonstrated that schizophrenic patients who are judged to be clinically thought disordered exhibit a high degree of statistical independence on their Grid Test of Schizophrenic Thought Disorder. Bieri's (1955, 1966) and Adams-Webber's (1969) indices of differentiation between constructs in the repertory grid are in many ways analogous to Bannister's measure of clinical thought disorder. The above authors suggest that the thought disordered schizophrenic undergoes a process of 'serial invalidation' of his construct system such that it literally 'fragments' into a loose system whose degree of interrelationship is low.

Thus, there may be seen a growing body of research (of which the above review is representative rather than exhaustive) that supports the Fragmentation Corollary.

The Commonality Corollary states "to the extent that one person employs a construction of experience which is similar to that employed by another, his processes are

psychologically similar to those of the other person". The converse of the Individuality Corollary, this statement implies that persons are similar because they construe events in similar ways. It does not however imply like experience of an event, stemming from the event itself, or equivalence of perception inferred for similar behavioral manifestations. The constructs remain the reference point for any similarity experienced. Due to the close connection between the above and the Sociality Corollary, research relating to both will be discussed together.

The Sociality Corollary states "to the extent that one person construes the construction processes of another, he may play a role in a social process involving the other person". Within the explicit framework of Kelly's model of interpersonal relations, 'sociality' is fundamentally a question of the extent to which one individual can accurately infer the personal axes of reference of another person as a basis of effective communication and understanding.

Mair (1970a, b) has developed within the context of personal construct theory an elaborate 'conversational' technique by means of which two (or more) persons can explore together and share to some extent their own psychological perspectives. Mair approaches the problem from the point of view of the Sociality Corollary and Kelly's (1955, 1970) definition of a role relationship as a course of activity carried out in the light of one's understanding

of another person's outlook. Thomas (1977) has developed an 'exchange grid' technique for structuring the process of communication of the personal constructions of one individual to another and then assessing the effectiveness of this exchange of information.

The ability to share the perspectives of others, while enhancing and facilitating day to day interactions with people in general, may be crucial to the well-being of a permanent role relationship. Ryle (1975, 1976) and Ryle and Breen (1972) have developed a 'double dyad grid' which can be completed jointly by two persons. This procedure is based on Ryle's 'single dyad grid' technique, which is similar in structure to the standard repertory grid except that the elements are not individual people, but rather relationships between two persons (e.g. 'yourself in relation to your father'). Ryle (1976) suggests that "the dyad form of grid is of particular value where relationships are the main focus of interest, as for example, in the investigation of couples or in the investigation of role relationships" (p. 71). With a couple, four versions of the grid are completed, with each partner doing one for himself and one trying to anticipate the responses of the partner. Comparisons can be made between their two 'self grids' as yielding a measure of similarity between their personal construct system and revealing specific areas of difference. The 'self grid' of each partner can also be compared with his partner's predictions, as in Thomas'

(1977) 'exchange grid' technique, providing an index of "accurate empathy" (Ryle, 1976, p. 72) and locating misconstructions (Ryle, 1975). Results of this research are presented extensively in Ryle (1975) and seem to indicate the validity of using this technique for working with couples as well as support for the Sociality Corollary.

A series of studies by Duck (1973, 1975, 1977; Duck and Spencer, 1972) has shown convincingly that commonality between persons with respect to the content of their personal construct system provides a basis for predicting who will eventually become friends out of a previously unacquainted population. Duck (1973) proposes that "commonality of constructive processes is conducive to an increase in the probabilities for construing another's processes and this enhances the likelihood of social communication" (p. 25). This implies that the greater the similarity which we observe between a particular individual's personal construct system and that of another person ('commonality'), the greater will be his potential understanding of the other's construction of events ('sociality') and hence, the more likely that he will be able to communicate effectively with that person (i.e. establish a role relationship). He found an evolution from physical, to role, to interaction, to psychological constructs was evident as relationships developed.

There are also a number of studies relating to therapist-client interactions and the training of helping

professionals that fall within the range of convenience of the Sociality and Commonality Corollaries. Since these relate directly to this study's attempt to utilize personal construct theory as part of the training of school psychologists, they will be discussed in a separate section, presented later in this review.

Summary and Evaluation of the Theory and Methodology of Personal Construct Psychology

The level of abstraction at which Personal Construct Psychology (PCP) resides leads immediately to the question of whether it is possible to operationalize the formal constructs into a form amenable to empirical validation. Kelly, in keeping with his central tenet that it is constructs which allow man to make sense out of, and behave within the environment, designed The Role Construct Repertory Test (Kelly, 1955) to elicit these constructs from individuals.

In its original format the subject is presented with a role title list (e.g. mother, father, boss, etc.), comprised of twenty to thirty elements whom he identifies by name. The elements are then presented to him in groups of three with the S being instructed to identify some characteristic which is common to two of the elements (similarity or construct pole) and discriminate it from the third element (contrast pole). Every possible combination of triads is presented yielding a series of constellations of

elements (in this case roles) which relate to constructs. Kelly has suggested a number of alternatives for eliciting constructs. These include the Minimal Context Card Form (presented above), a Sequential Form in which only one member of the triad is replaced after each comparison (which he perceives as being the most exhaustive method), and the Self-Identification Form in which the 'self' card is included in each comparison. A further variation that Kelly (1955) suggests is that the role title list can be modified to meet the demands of the researcher's current topic of investigation (e.g. the present study is concerned with that particular subsystem relating to aspects of the role of 'school psychologist' and employs role descriptions relating directly to that subsystem). Although Kelly (1955) has suggested several methods for tabulating and analyzing this data, the grid form technique has become the dominant one. A nonparametric factor analytic technique was developed (Kelly, 1955, 1963) to permit quantitative analysis.

Early research into PCP and the "Rep Test" showed promising results. Hunt (1951) performed the first consistency study and found an average consistency of 69% (expressing construct similarity between two sessions). Fjeld and Landfield (1961) also studied construct consistency and found a Pearson r of 0.79. Bonarius (1965) reviewed Kelly's (1955) nonparametric factor analytic technique and subsequent modification, finding that the

Rep Test when used in a standard manner was "a safe instrument providing consistent information" (p. 17) with the proviso that each modification be rigorously studied in terms of its reliability and validity.

The plethora of modifications of the Rep Test (e.g. Hinkle, 1965; Fransella, 1972; Ryle, 1975; Thomas, 1977) do not always follow Bonarius' (1965) admonition. All of the above authors employ some form of quantitative analysis, utilizing a grid format. However, there still seems to exist a rather large separation between the original theory base and the methods presently employed to study it. Bonarius' (1965) observation that researchers seemed more interested in the repertory grid technique (in both the areas of research and clinical utility) than in testing specific hypotheses arising from the formal constructs still seems justified although the previous sections relating to specific corollaries show that this trend is beginning to reverse itself. An illustration of the lack of specificity between individual corollaries and research arising from them is the fact that many of the studies reviewed encompass a number of corollaries and seem to be related to specific ones more in an implicit expost facto manner than as an initial explicit statement about the foci of the studies. Therefore although a substantial body of research is now being generated in personal construct theory, much of it still indicates 'promise' rather than confirmation of the theory base.

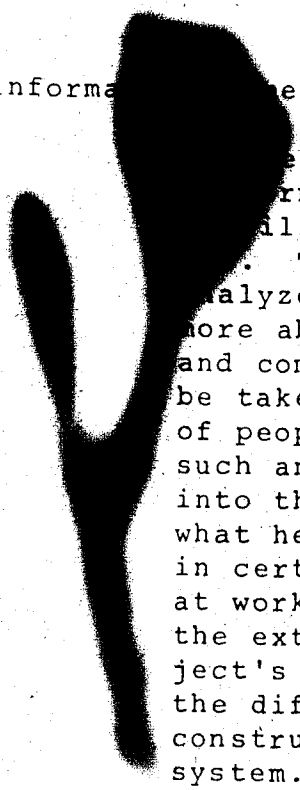
Some research has been done on the reliability and validity of data collected in the PCP area, but the nature of the instruments make classical evaluation difficult. Bannister and Fransella (1971) report Kelly as referring to reliability as a measure of the extent to which a test is insensitive to change. This comment is not intended to be facetious, but rather reflects the idea that continuous reconstruction is occurring. In fact, rigidity on the construct system may reflect pathology. Bannister (1962b), Bannister and Fransella (1966) and Makhlouf-Norris (1970), found that in schizophrenics and obsessive compulsive neurotics the high degree of consistency exhibited was an indication that the construct systems possessed atypically narrow ranges of conveniences and fewer implications among subsystems which resulted in inability to respond to novel demands the environment placed on them. Adams-Webber (1979) cites a number of studies reporting the reliability of various grid modifications but in general Bannister and Mair's (1968) conclusion that "there is no such thing as the reliability of the grid" (p. 156) still seems to be valid.

The predictive value of the grid method is beginning to be demonstrated in research. Knowles and Purves (1965) found that attitude to the experimenter and need for approval, as measured by grids, was related to the ease with which subjects responded to verbal conditioning. Landfield and Nawas (1964) demonstrated that improvement

was found to be related to the degree in which the therapist understands a patient's construct system. Single case studies have suggested that construct relationships are meaningful linked to what is known about certain individuals and that certain predictable patterns occur (Fransella and Adams, 1966; Bannister and Mair, 1968). Work on the relationship of implications to superordinate constructs (Hinkle, 1965; Fransella, 1972) suggests that the degree of differentiation of the construct system at least in part predicts the ability of the individual to adapt to novel demands in the environment.

The paucity of evidence in terms of the reliability and validity of the repertory grid technique may stem from a number of reasons. Although widely used in clinical settings (cf. Bannister and Mair, 1968), practitioners have been justifiably criticized for their failure to systematically report clinical data. Further, the degree of acceptance of single case study designs as a reputable experimental method has only recently come about (Hershen and Barlow, 1976). Another complication (mentioned above) of the repertory grid method is its degree of flexibility, which is at once its greatest asset and liability.

A final criticism of the literature reviewed is that the majority of the research done to date in personal construct theory has centered on the grid technique, especially in terms of its mathematical properties, while relatively little research is evident using it as a descriptive,



informa[illegible]erating device. Kelly (1955) suggests that

> [illegible]est results can be subjected both [illegible]rmal analysis, and, in the case of [illegible]illed clinician, to a clinical analy-[illegible]. The construct themselves can be [illegible]alyzed as to context or tone and as to [illegible]ore abstract features, such as permeability and communicability. The figures can also be taken into account - that is the kinds of people they are construed to be. From such an analysis one can get some insights into the facets of the subject's role - what he sees himself called upon to do in certain types of situations: at home, at work, and so on. Some judgement of the extent and flexibility of the subject's constructs can be made; also of the difficulties the subject has in construing some figures in his construct system. (pp. 232-233).

Thus, while the majority of studies explore relationships of grids [illegible] a formal (mathematical) way, few direct attention int[illegible]the facets of the subject's role'.

In summary the philosophical position and formal constructs of Kelly's (1955) Personal Construct Psychology have been reviewed and relevant representative research was cited. It was noted that while there is a growing body of research supporting the theory base as a whole, this research seems to be generally applied on an expost facto basis to the specific corollaries. Further the majority of the research takes the form of formal (mathematical) analysis of the various grids rather than examining the grids in a descriptive fashion which Kelly (1955) suggests will generate content information about the various facets of the individual's roles.

The final two sections of this review will focus first

on recent development in personal construct research relating to training of professional roles and second on studies addressing the role of the school psychologist.

Professional Roles: Does Training Make a Difference?

During the past few years there has been some research concerned with the effects of professional training on the structure and content of the personal construction system of the individual trainee. Ryle and Breen (1974a) investigated how British social-work students construed their roles and how their constructs changed in the course of a two year training program. They designed a 'dyad grid' in which elements consisted of relationships between the trainees and their clients, tutors, supervisors, and parents. These elements were rated on seven point scales based on sixteen uni-polar constructs selected to represent a range of judgements relevant to the particular roles being construed, for example 'behaves professionally towards'. Each of the twelve social work students completed this grid test within three months of starting training and repeated it on two subsequent occasions before completing training.

It was found that the percentage of total variation accounted for by the first two components was significantly smaller on the third occasion of testing than on the first. Further, the distance between the 'self-to-client' and 'ideal self-to-client' relationship decreased significantly

during training "indicating greater confidence in the social-work role" (p. 146). Ryle and Breen concludé that "the evidence of, in general, greater role confidence and the evidence of greater complexity of construing without greater conformity after the course experience are both encouraging" (p. 146).

Another study of changes taking place in students' construct systems during social-work training was carried out in Israel by Liftshitz (1974). She employed a shortened group form of the repertory grid to compare the personal perceptions and attitudes of a group of social-work students with those of their more experienced supervisors. Twelve figures selected from Kelly's (1955) original list of nineteen role titles was used to elicit twelve bi-polar constructs from each subject individually. Each of these figures was then rated dichotomously on every construct. The results indicated that the student group used the most concrete descriptive categories such as age, sex, and profession. The constructs of the supervisors on the other hand showed more abstract ability regarding concern for themselves, others and their task. "Their concepts centered on the professional ideal and revealed an internalization of cherished values" (p. 193). She concludes that training produces an increase in the level of abstraction of interpersonal construing and a change in 'personal models' used in validating constructs.

Adams-Webber and Mirc (1976 ... cited in Adams-Webber,

1979) used repertory grid procedures to assess the development of student teachers' conceptions of their future professional roles during their first six weeks of practice-teaching. The basic assumption of this research was that individual teachers evolve specific subsystems of inter-related constructs in terms of which they define their own pattern of involvement on activities such as teaching, testing, and counselling. These role subsystems can be viewed as also having implications for how the various functions of the teacher role are coordinated with those of related roles (e.g. principal). It was hypothesized that there would be gradual increases in the level of integration of the student teacher's role subsystems as they gained classroom experience. Also, Kelly's (1955) assumption that there is a high degree of specialization among subsystems within an individual's personal construct system implies that changes should be specific to their teacher role subsystem and not generalize to other systems of their construct systems.

The principals of seven schools each completed a grid composed of ten role titles which they ranked on nineteen constructs in terms of each role's degree of involvement in each construct. The same task was completed by sixty-four regular classroom teachers. Results indicated a fairly high degree of interaction between the role subsystems of the principals and the teachers working under them. Finally twenty-nine student teachers individually completed the same

repertory grid task prior to student teaching and on three subsequent occasions during their practice teaching. As a control for the possible practice effects a control grid made up of the same ten role figures were rank-ordered successively on fifteen personal constructs previously elicited. The order of the two grids was counterbalanced across the four occasions.

The data showed significant increases in the students' integration scores across the four experimental grids and no significant changes in the control grids. This result is consistent with the hypothesis that there would be gradual increases in the level of integration of the students' role subsystems as they acquired classroom experience. The lack of any systematic changes in the control grids lends support to the second hypothesis that the expected increases in integration would be specific to those constructs which are directly relevant to structuring the teacher's role and would not generalize to other sectors of their personal construct systems.

The results of this research and that of Ryle and Breen (1974) and Liftshitz (1974) provide evidence of the construct validity of the repertory grid as a method of measuring progressive changes in the content and structure of the construct systems of individuals undergoing professional training. The Liftshitz (1974) research is particularly relevant to the present study in that it compares role conceptions of expert trainers, of trainees and

qualitatively discusses distinctions between the two groups.

The Changing Role of the School Psychologist

Over the last ten years, there has been a marked increase in literature relating to the role and training of the school psychologist. The majority of these studies seem to equate the concept of role with function within a system.

Hohenshil (1974) and Telzrow (1975) have suggested that a school psychologist is a likely candidate to administer career education programs. Reger (1975) feels that school psychologists need to become more involved in instruction rather than in counselling in psychotherapy. Mearig (1974) sees school psychology as providing opportunities for child advocacy. The school psychologist, once perceived as a 'tester and classifier' has more recently functioned as an educational and psychological consultant (Fine and Tyler, 1971; Meyers, 1973, 1978). Graff and Clair (1973) summarizing current certification practices in the United States found much confusion among school administrators, counsellors, special education personnel and even school psychologists themselves as to the function of the psychologist in the schools. Janzen and Reynolds (1978) assessed the current role of school psychologists in Alberta and described a 'Process Model' (Brokes, 1975, in Parker, 1975) for training school psychologist functions in a consultant role.

The above studies have one common theme. When addressing both the role and training of school psychologist they speak in terms of function (e.g. the school psychologist as 'assessment expert' or 'consultant', etc.). There seems to exist a growing amount of controversy on who the school psychologist should be and how he should be trained. However, especially in regards to training, the present literature review did not discover any research relevant to the question of what characteristics are necessary for success in the training of school psychologists and whether the trainers' perceptions of the necessary characteristics are in agreement with those of the trainee.

Conclusions Relating Personal Construct Psychology and The Role of the School Psychologist

The literature reviewed in relation to the formal content of personal psychology (especially the Commonality and Sociality Corollaries) suggests that effectiveness of interpersonal relations increases as a function of awareness and integration of construct systems. Kelly (1955) and others (Duck, 1973; Ryle, 1975; Ryle and Breen, 1972; Thomas, 1977) suggest that repertory grid methodology is one technique that allows for the clarification of the individual's construct system. One possible way to tap into the constructs and focus on content, rather than structure is the use of Kelly's (1955) suggestion that the grid be interpreted in a qualitative fashion in terms of the relations of the role figures to the constructs and

the information's relation to the formal aspects of the theory.

Adams-Webber and Mirc's (1976) and Ryle and Breen's (1972) research in the area of training professionals suggests that specific subsystems develop relating to the professional role and training causes changes within those specific subsystems. There is, further, a growing concern about defining the roles of the school psychologist and developing appropriate training models, although none of the research has as yet focused on defining constructs relevant to the functioning of the school psychologist. It is suggested that Kelly's (1955) personal construct psychology may be useful in helping to determine what these constructs are, and their relative importance and consistency for both trainers and trainees.

CHAPTER III

CONSTRUCTION OF THE SCHOOL PSYCHOLOGISTS ROLE GRID

Rationale

Bannister and Fransella (1971) reported George Kelly as once saying: "If you want to know something about someone, ask him, he just might tell you". Kelly's (1955, 1963) theory of the Psychology of Personal Constructs and the methodology he proposes to examine it are in many ways a direct reflection of this statement. The development of the School Psychologists Role Grid represents an attempt to adhere to this conviction in the following ways:

The majority of the previously reviewed research has focused on formal (i.e. mathematical) analysis of variations of the repertory grid. While Kelly (1955) admits that this is a very important aspect for evaluating the applicability of the theory base, he further suggests that from clinical (descriptive) analysis "one can get some insights into the facets of the subject's role - what he sees himself called on to do in certain types of situations: at home, at work and so on" (Kelly, 1955, p. 232). This type of approach seems particularly amenable to the focus of the present study for a number of reasons.

In terms of the original theory base the Commonality, and especially the Sociality Corollaries are relevant to examining both the constructs subjects feel are necessary for defining the role subsystem (cf. Adams-Webber and Mirc,

1976) of the school psychologist and the amount of consistency between the trainers and trainees within a program developed to produce school psychologists. It is assumed that within the training process and development of role(s) of the school psychologists, certain constructs will emerge that at least in part define the nature of the role, although these constructs may be implicit. Further it is suggested that an attempt to make these constructs explicit may be useful for reducing, to some extent, the present confusion regarding what role school psychologists should assume. Unlike the research reviewed previously regarding the role of the school psychologist (Hohenshil, 1974; Reger, 1975; Telzrow, 1975, etc.) which focuses on function (i.e. the school psychologist as 'assessment expert', 'consultant', etc.) the present instrument focuses on making explicit constructs which Kelly (1955) suggests allows individuals to "play a role in a social process involving the other person". In this case the 'social process' is the training of school psychologists. Further for Kelly (1955) the extent to which "one person construes the construction processes of another" (cf. the Sociality Corollary) is an index of this developing social process.

The School Psychologists Role Grid (S.P.R.G.) is developed to first make explicit constructs which individuals involved in the school psychology training program at the University of Alberta feel are important in developing various aspects of the role of school psychologist. Its

second objective is to attempt to provide an index of the degree of consistency between trainers, trainees, and both groups in conjunction with each other as to how characteristic each construct is to each role description included in the instrument. The following sections describe the format for eliciting the constructs, selection of representative constructs employed in the final instrument, and their reliability and validity.

Method of Elicitation

A repertory grid was constructed (see Appendix A) using Culbertson's (1980) list of role descriptions for school psychologists which included:

1. a successful fellow school psychologist in training.
2. an unsuccessful fellow school psychologist in training.
3. myself as a psychologist-trainee in the schools.
4. myself as the school psychologist I'd like to be.
5. myself as seen by administration in relation to psychology in the schools.
6. an effective instructor in my field.
7. an ineffective instructor in my field.
8. a psychologist in the schools whose work I once admired but no longer do.
9. a psychologist in the schools whose work I admire.
10. a person I feel comfortable with talking about my work.
11. a person I feel uncomfortable with talking about

my work.*

The role descriptions are intended to elicit: 1. peer perceptions of constructs representing a successful - unsuccessful dimension when in training; 2. constructs concerning the self-ideal self dimension as it relates to the school psychologists' role; 3. constructs relating to effective vs. ineffective instruction within the training program; and 4. constructs concerning a comfortable-uncomfortable dimension in regards to communication about work as a school psychologist. The above role descriptions are analogous to Kelly's (1955) role title list with their function being to elicit constructs which arise from comparisons among the elements.

Kelly's (1955) 'self-characterization' format was employed in the construction of the S.P.R.G. utilizing the method of triads which he suggests represent the minimal context through which constructs can be obtained. In this format a series of representative 'sorts' of three role descriptions, one of which is always the 'self' element (in this case role description '3') are compared simultaneously with the task being to identify some dimension on which two of the elements are the same (i.e. the similarity or construct pole) and different from the third element (i.e. the contrast pole). The end product of these

*Note - The above role descriptions were employed to provide a future comparitive base between the school psychology program at the University of Alberta and the program Culbertson directs at the University of Wisconsin at Whitewater.

sort' is a series of bi-polar constructs (one for each 'sort' or comparison) which for Kelly (1955) are the representation of the individual's construction of reality, and serve as the basis for behaving in the world.

For the present study's purpose, eleven 'sorts' were selected in the following manner. First, in accordance with Kelly's (1955) self-characterization format, each sort contained the 'self' element (i.e. 'myself as a psychologist-trainee' in the schools). Second, the sorts were selected so that each triad would compare the 'self' element with all other role descriptions at least once over the eleven comparisons. Finally, the third element within each triad was selected such that it was approximately evenly distributed across the role description list.

The end product of the above procedure is the elicitation grid (see Appendix A) in the form of an eleven by eleven matrix, which was used to generate the constructs employed in the School Psychologist's Role Grid (S.P.R.G.) The role descriptions constitute the eleven columns of the matrix. Each of the eleven rows identifies the three role descriptions to be compared (sorted), thereby eliciting a single construct for each row, and a total of eleven bi-polar constructs for each subject.

The Elicitation Sample

Since one of the primary focuses of the present study was to attempt to make explicit constructs employed in the

training of school psychologists, the elicitation sample's subjects were individuals who were, or are at present involved in the teaching and supervision of a graduate individual assessment course which is part of the core program for school psychology at the University of Alberta. The sample consisted of six males and four females with a mean age of thirty-one years, six months. The sample included nine graduate students. Seven held Bachelor of Education degrees, although only four had teaching experience (an average of five years). Eight of the nine held Master of Education degrees and were currently enrolled in Ph. D. programs in the Department of Educational Psychology. Four of the graduate students had been employed as school psychologists with the average number of years experience being two and one-half years. The professor held a Ph. D. and had two years experience as teacher and ten years as a school psychologist before joining the department. All subjects voluntarily participated in the elicitation task.

Procedure for Elicitation of the Constructs

The elicitation grid (Appendix A) described in the previous section was administered to each subject individually. Included with each grid were a series of written instructions (See Appendix A) which the subjects were directed to read silently as the experimenter read them aloud. Each subject was then instructed to proceed with the comparison for the first triad of role descriptions,

and formulate a bi-polar construct while the experimenter was still present. The E then checked the construct to ensure that it was bi-polar and answered questions regarding the task itself. No examples of constructs were provided by the E, in an effort to eliminate possible halo effects which might have arisen as a function of his expectations of what constructs the task should elicit. Subjects were then instructed to provide constructs for the remainder of the triad sorts and return the completed elicitation grid to the experimenter.

Content Validity

Kelly (1955) suggests that the constructs elicited employing his methodology are a valid reflection of the construction system the individual utilizes in making sense out of his world. In the present study, Kelly's (1955) self-identification method was utilized in a standard manner. Furthermore, the elements (role descriptions) employed in the elicitation grid clearly identify that the grid is concerned with various aspects of the school psychologist's role. It is suggested that through adherence to the theory basis/methodology, the constructs elicited from these elements will provide a valid representation of the role aspects examined.

R[redacted] ensure that the constructs elicited pos-

[redacted]lity over time, three subjects were

randomly selected and retested after one week had elapsed. Fjeld and Landfield's (1961) reliability estimate was employed with each subject being presented with an elicitation grid identical to the previous one employed, with the exception being that the E provided each with the initials they had used for each role description on the previous administration. All other instructions and procedures were identical. Results indicated that all three subjects were able to reproduce their original constructs at a 0.91 level of consistency. While the phenomenon of 'practice effect' may have elevated this level somewhat, this author suggests that this result indicates that the constructs elicited are stable and consistent above the level of chance.

Rationale for Selection of Constructs Utilized in the School Psychologist's Role Grid

One hundred and eleven bi-polar constructs were generated by the ten subjects who completed the elicitation grid and are listed in Appendix B. The inclusion of all of these constructs in the School Psychologist's Role Grid were prohibitive for a number of reasons. First in terms of both time factors and subject fatigue the rating of one hundred and eleven constructs for each of the eleven role descriptions seemed too much to ask of the volunteer subject population. The second, and more important consideration in reducing the size of the construct pool was the fact that each of the constructs elicited represented an

individual perception arising out of a comparison of role descriptions. While these individual constructions were valid in and of themselves they were beyond the scope of the present investigation whose focus was to utilize constructs that represented commonality across all subjects. Consequently a sorting task, employing three independent judges was carried out, in an effort to determine whether the original construct pool could be reduced to a limited number of overlapping or common constructs.

The Construct Sorting Task

Each of the one hundred and eleven constructs were transferred from the elicitation grids to cards, with one bi-polar construct on each card. The card 'deck' was then presented to the judges individually with their task being to determine which, if any, of the constructs seemed to 'cluster' together in terms of (1) overlapping through simple repetition or (2) be related in that their 'meaning' seemed similar. No time limit was imposed on the task. When the judge indicated that he was satisfied with his sort, he was then instructed "to select the construct from each cluster which best represents the entire cluster for you". The representative construct for each cluster and the constructs included in all clusters were then recorded and are presented in Appendix C.

Final Selection of Constructs

The criterion employed for selection of a construct

for the S.P.R.G. was one hundred percent agreement of all judges on constructs they selected to represent clusters. Although there is some variation in terms of the constructs which cluster under the representative constructs (See Appendix C) the eleven constructs selected for use in the S.P.R.G. represent complete agreement of the judges. In terms of Kelly's (1955) theory base, the final constructs selected seem to assume a superordinate position within the subsystem of bi-polar constructs relating to the role descriptions of school psychologist's provided. The eleven constructs selected are presented in Appendix D along with definitions of each which the author solicited from independent subjects and compiled into an aggregate form.

The School Psychologist's Role Grid

The final form of the S.P.R.G. (Appendix E) consists of the eleven role descriptions previously presented which constitute the columns of the matrix, and the eleven constructs obtained from the sort of the construct pool, which constitute the rows. It is assumed that these constructs represent relatively stable characteristics, which a sample of individuals directly involved in the training and supervision of school psychologists, feel are characteristic of the various role aspects examined in the role title description.

As was mentioned in the rationale section, the second objective in developing this instrument, was to attempt to determine the consistency with which both trainers and

trainees ascribe how characteristic the various constructs are for the role descriptions. The use of rating scales in repertory grids has been suggested by Bannister and Mair (1968) to be useful in allowing subjects to make finer discriminations than is possible using Kelly's (1955) original binary method. The index used in the present instrument is a Likert type seven point scale with a rating of seven meaning that the construct is "very characteristic" of the role description, six being "moderately characteristic", five - "slightly characteristic", four being "neutral or not applicable", three "slightly uncharacteristic", two "moderately uncharacteristic", and one being "very uncharacteristic". It is suggested that by having each subject in both the trainer and trainee groups (who will be discussed in the following chapter) rate each construct on each role description it will be possible to determine at a descriptive level how consistent their perceptions of the characteristics of the constructs in relation to each role are.

The characteristics of the samples employed will be discussed in the following chapter. It will also address itself to further discussing the reliability and validity of the S.P.R.G. and the descriptive analysis employed in the present study.

CHAPTER IV

PROCEDURE AND DESIGN

The Samples

Two populations were sampled in the present study, those being an 'expert' and a 'trainee' sample. Descriptions and definitions of each are presented below.

The "Experts"

In order for a subject to be selected for the 'expert' group the S must have either: (1) been employed as a trained psychologist in the schools, (2) been involved with the Department of Educational Psychology's training program for school psychologists, or (3) have received previous training as a school psychologist. For the purpose of the present study the terms "school psychologist" and "psychologist in the schools" are interchangeable and defined as those individuals who are directly involved in the assessment, counselling, and consultation of children within a school setting, and who possess graduate training which equips them to fulfill these roles.

The sample consisted of eight males and seven females, with the mean age being thirty-two years. Nine of the subjects held Bachelor of Education degrees and the average number of years teaching was eight. Six of the subjects had Master of Education degrees, and two held Master of Science degrees. Four were currently enrolled in Ph. D. programs in Educational Psychology and two subjects had

already obtained their Ph. D's. The remaining five subjects were completing Master of Education degrees and were included in the sample because each indicated experience working as a psychologist in the schools. The overall mean number of years experience for working as psychologists in the schools was three years.

The "Trainees"

Subjects in the "Trainee" group were all enrolled in a graduate course in assessment, which is part of the core program for school psychology in the Department of Educational Psychology. The major criterion for subjects to be included in this group was that they possessed no work experience as psychologists in the schools.

Of the twenty-three subjects who participated four met the criteria (i.e. had been employed as a psychologist in the schools) of the "Expert" group and were transferred to that group, and two did not complete the S.P.R.G. The final sample consisted of eleven females and six males, with a mean age of thirty-three years. One of the female subjects did not complete the remainder of the personal information form and is not included in the following descriptions of the remaining sixteen subjects. Fifteen possessed Bachelor of Education degrees, with the mean number of years teaching experience being nine years. One subject held a Bachelor of Science degree. Four of the sixteen subjects classified themselves as special students, six enrolled in graduate diploma programs. None of the

subjects possessed any experience working as psychologists in the schools.

The Instrument

The School Psychologist's Role Grid (Appendix E) was administered to both groups sampled. The rationale for its construction and a description of its characteristics have been reviewed in detail in the previous chapter and will be briefly summarized here. The S.P.R.G. may be described as an eleven by eleven matrix (grid) with the columns containing the eleven representative constructs. Subjects were provided with a seven point Likert type scale (as suggested by Bannister and Mair, 1968) which ranged from a rating of seven being "very characteristic" to one being "very uncharacteristic" and four being a "neutral or not applicable" rating. The intent of this scale was to allow subjects to provide an index of how characteristic they considered each construct to be for each role description.

Validity

While no formal analysis of the content or construct validity was possible, it is suggested that both are in evidence and arise from the original theory base (Kelly, 1955). In terms of the content validity Kelly (1955, 1963) argues that the constructions man imposes upon the world (i.e. the constructs) represent the content of his existence. The content validity of this instrument was established:

1. through adherence to the theory base and

methodology described by Kelly.

2. through inclusion of only those constructs which three independent judges felt were representative of the clusters contained in the construct pool.

It should also be noted in this section that some research (e.g. Adams-Webber, 1970b; Landfield, 1968) suggests that elicited constructs are more meaningful to be individuals. Since comparisons in this instrument are primarily nomomethic, a compromise was reached in that elicited constructs which were judged to be representative were employed.

The construct validity of the instrument is suggested to be evidenced by the fact that all constructs were elicited from subjects directly involved in the training and supervision of school psychologists and arose from a comparison of role descriptions which directly related to various aspects of the role of the school psychologist in training.

Reliability

The reliability of the constructs elicited was discussed in the previous chapter. In an effort to determine whether the ratings obtained by the S.P.R.G. were consistent over time three subjects were randomly selected and readministered the instrument after one week had elapsed. As was the case in the previously discussed reliability check, the initials the subjects had assigned to the role descriptions were provided, while all other procedures remained constant. The reliability estimate was obtained by com-

puting the number of matching ratings for all cells for each subject and converting the figure into a percentage. The mean matching score for the three subjects was sixty-three percent, which, considering the number of ratings involved (i.e. one hundred and twenty-one) indicates a fair degree of consistency over time. It should be noted that the limited number of subjects available for the reliability estimate reduces the generalizability of the results obtained.

Procedure

The three page School Psychologist's Role Grid (Appendix E), which included an instruction page, the grid itself, and a page soliciting personal information was administered to both the 'Expert' and the 'Trainee' groups. In order to ensure that the instructions were lucid and on task, the experimenter presented them to four individuals who were not included in either of the above groups. All four subjects were able to understand the instructions and proceed with the task, and reported no difficulties arising from the presented format.

The S.P.R.G. was administered to the 'Trainee' group during a regularly scheduled class period. The included instructions (see Appendix E) were presented orally by the experimenter and an example of the rating scale was given. The experimenter then answered questions related to the completion of the task. A grid was completed by each subject with no time limit being imposed.

The S.P.R.G. was completed by the 'Expert' group on an individual basis, with the exceptions of the four subjects who were transferred to this sample from the Trainee group because they met its criteria. All instructions and procedures were presented by the experimenter in a manner identical to that employed with the Trainee group.

Experimental Design and Data Analysis

The basic experimental design utilized was an operalization of Kelly's (1955) clinical (descriptive) method for examining the relation of constructs to role descriptions.

Two samples were utilized in the design. Group 1 (referred to as the "Trainee"group) consisted of seventeen subjects. Group 2 (referred to as the "Expert" group) consisted of fifteen subjects.

The School Psychologist's Role Grid was the sole instrument employed to examine the degree of 'characteristicalness' with which subjects rated each construct for each role description. The resulting data consisted of one hundred and twenty-one discrete ratings for each subject in both groups. A qualitative analysis was carried out as described below.

First the mean rating for each cell of the matrix and its standard deviation was completed across subjects for each group. The mean rating was interpreted to be an overall rating of how characteristic each construct was for each role description for both the Expert and Trainee groups. The standard deviations resulting from the mean ratings

were considered to represent an index of consistency (i.e. the lower the standard deviation the less variable the ratings were between subjects, within each group) of the ratings. For the purpose of this study a call will be judged to be consistent if the standard deviation is less than, or equal to, 1.5. This measure of consistency was selected so that within any given cell ratings could vary one point from the mean rating in either direction.

Research Questions

The exploratory nature of the present study precludes the possibility of formulating specific hypotheses which could be either confirmed or disconfirmed. Instead the following questions will be examined in the following manner.

The major focus of the present study is to determine how characteristic subjects perceive constructs elicited from the trainers to be, in relation to the role descriptions of school psychologists employed in the S.P.R.G.

The eleven role descriptions (which contain ratings for all eleven constructs) will be separately examined with the questions being:

1. (a) What constructs for each group seem most characteristic for each role description?

   (b) Are these constructs' ratings consistent across subjects?

2. (a) What constructs for each group seem least characteristic for each role description?

   (b) Are these constructs' ratings consistent across subjects?

3. (a) Do the two groups' results agree in relation

to the two questions posed above?

(b) If not, in what areas is disagreement evident?

CHAPTER V

RESULTS

Introduction

As was stated in Chapter IV, a total of thirty-two subjects (seventeen 'Trainees' and fifteen 'Experts') completed the School Psychologist's Role Grid. All subjects were or had been involved in a graduate individual assessment course, which is a core requirement for the Department of Educational Psychology's school psychology program, in either teaching, supervision or student capacities.

The major focus of this study was to determine how characteristic subjects perceived constructs elicited from the trainers to be, in relation to the role descriptions included in the S.P.R.G. Rather than testing specific hypotheses related to this focus, the research questions listed in the previous chapter will be discussed in a descriptive manner for each role description. The results will then be examined to determine whether any general trends arising from the subjects' ratings were evident.

Role Description 1: A successful fellow school psychologist in training . (see Table 1)

The Trainees

The construct "thorough" ranked first and was rated as very characteristic for the role description. The con-

Table 1

Means and Standard Deviations for Subjects' Ratings of Role Description 1 for All Constructs

Construct	Trainee (n=17) X	S.D.	Expert (n-15) X	S.D.
Experienced-Inexperienced	6.12	*1.18	5.87	*1.20
Thorough-Not Thorough	6.59	*0.69	6.60	*0.71
Defensive-Open	3.06	2.15	1.53	*0.50
Relaxed-Anxious	5.47	1.88	6.20	*0.65
Efficient-Disorganized	6.12	*1.23	6.20	*1.22
Flexible-Rigid (in values)	6.12	*1.18	6.67	*0.60
Practical-Theoretical	5.18	1.82	5.87	*1.02
Outgoing-Reserved	4.77	1.55	5.53	*0.72
Reliable-Unreliable	6.50	*0.60	6.60	*0.88
Verbally Articulate-Verbally Hesitant	6.12	*0.76	6.27	*0.77
Authoritarian-Permissive	3.47	1.82	2.60	*1.36

* - indicates consistent rating

struct "reliable" was also rated as very characteristic consistently. The mean ratings for the constructs "articulate", "experienced", "flexible" and "efficient" (in descending order of consistency) were all rated as being moderately characteristic of the role description. The construct "defensive" was rated as slightly uncharacteristic of a successful fellow school psychologist in training, as was "authoritarian" (the latter being more consistent than the former, although neither reached the criterion level for consistency).

The Experts

The construct "flexible" attained the highest mean rating, and was judged to be very characteristic of the role description in a consistent manner across judges. The mean ratings of the constructs "reliable" and "thorough" were also judged to be very characteristic. "Relaxed", "efficient", "articulate" and "experienced" were rated by the experts as moderately characteristic. Experts gave the lowest mean rating to the construct "defensive", followed by "authoritarian", the former being very uncharacteristic, the latter moderately uncharacteristic. Both ratings were judged to be consistent.

Trainees vs. Experts

In general, for this role description Experts rated constructs more extremely, and more consistently, Both groups agreed that "defensive" and "authoritarian" were

the least desirable constructs for a successful school psychologist in training. The Experts judged "flexible" as being most characteristic by the Trainee group. Mean ratings for both groups on the highest rated constructs were closely grouped. In general, consistency of mean ratings of constructs for both groups decreased as ratings approached the uncharacteristic end of the rating scale, with the exception of the Experts' rating of "defensive" which implies they feel that the construct 'open' is moderately characteristic of the role description.

Role Description 2: An unsuccessful fellow school psychologist in training. (see Table 2)

The Trainees

As is evident from Table 2, all mean ratings for this role description were not consistent, indicating a low degree of agreement between subjects. The results should therefore be interpreted cautiously. Both the constructs "defensive" and "authoritarian" were rated as moderately characteristic of the role description. The constructs "outgoing", "verbally articulate" and "experienced" were raised as neutral or not applicable. The other constructs were rated on the uncharacteristic side of the scale which implies the contrast pole of the construct. That is, for the Trainee group, an unsuccessful fellow school psychologist in training is "not thorough", "theoretical" (as opposed to practical), "unreliable" and "rigid in values".

Table 2

Means and Standard Deviations for Subjects' Ratings of Role Description 2 for All Constructs

Construct	Trainee (n=17) X	S.D.	Expert (n=15) X	S.D.
Experienced-Inexperienced	4.35	1.88	2.93	1.61
Thorough-Not Thorough	2.73	1.53	2.60	*1.40
Defensive-Open	5.29	1.64	5.73	*1.48
Relaxed-Anxious	3.41	2.22	3.07	2.02
Efficient-Disorganized	3.41	1.94	2.67	1.53
Flexible-Rigid (in values)	3.18	1.62	2.47	1.75
Practical-Theoretical	2.71	1.64	2.93	1.57
Outgoing-Reserved	4.00	2.06	3.60	1.93
Reliable-Unreliable	3.29	1.81	3.00	1.67
Verbally Articulate-Verbally Hesitant	4.35	2.06	3.80	1.78
Authoritarian-Permissive	4.65	1.81	4.33	1.78

* - indicates consistent rating

The Experts

The construct "defensive" was consistently rated as being moderately characteristic of the role description. Unsuccessful fellow trainees were also consistently judged to be moderately "not thorough". All other ratings were not consistent between subjects and should be interpreted cautiously. The construct "authoritarian" was perceived to be neutral or not applicable. The unsuccessful fellow trainee was perceived as being slightly "rigid in values", "disorganized", "inexperienced", "theoretical" and "anxious", although the standard deviations indicate that subjects were variable in their ratings of these constructs.

Trainees vs. Experts

The lack of consistency in the ratings of both groups indicates that the subjects' perceptions of the various constructs importance to the role description were variable. In general subjects tended to rate the constructs on the uncharacteristic end of the rating scale, which implied that the contrast pole of the construct was more applicable to an unsuccessful trainee. This result seems consistent with the constructs included in the instrument. That is, with the exception of the constructs "Defensive-Open" and "Authoritarian-Permissive" the contrast poles of the constructs seem to have a more negative association than the similarity poles and it follows that an unsuccessful trainee is judged in a more negative fashion.

Comparison of Role Descriptions 1 and 2.

As was mentioned in Chapter III the role descriptions employed in the S.P.R.G. are 'paired' and this should theoretically be reflected in the ratings obtained. Generally both groups were more consistent in rating a successful trainee than an unsuccessful one. This might indicate that commonality of perceptions of the necessary criterion for success exist across subjects, but not for lack of success, as evidenced by the more variable ratings. Ratings for role description two clustered around the mid-point, as opposed to a tendency in role one to use the extreme ends of the scale. In general, constructs rated in role description one as characteristic were rated as uncharacteristic in role description two (e.g. a successful trainee is perceived as "open" as opposed to an unsuccessful trainee who is perceived as "defensive").

Role Description 3: Myself as a psychologist-trainee in the schools. (see Table 3)

The Trainees

This role description is related directly to the subject's perception of 'self'. The constructs "thorough" and "reliable" were perceived as very characteristic of the role description. "Efficient" and "flexible" were moderately characteristic. "Verbally articulate" and "outgoing" were seen as slightly characteristic of myself as a psychologist-trainee. As would be expected the construct "experienced"

Table 3

Means and Standard Deviations for Subjects' Ratings of Role Description 3 for all Constructs

Construct	Trainee (n=17) X	S.D.	Expert (n=15) X	S.D.
Experienced-Inexperienced	4.41	1.57	5.33	1.53
Thorough-Not Thorough	6.53	*0.70	6.20	*0.54
Defensive-Open	3.47	2.15	2.07	*0.57
Relaxed-Anxious	5.53	2.12	5.13	*1.20
Efficient-Disorganized	6.00	*0.84	6.00	*1.03
Flexible-Rigid (in values)	6.00	*0.84	6.07	*0.44
Practical-Theoretical	5.29	*1.40	5.53	*1.45
Outgoing-Reserved	5.35	*1.19	5.13	*1.26
Reliable-Unreliable	6.41	*0.77	6.67	*0.47
Verbally Articulate-Verbally Hesitant	5.47	*0.92	5.80	*0.75
Authoritarian-Permissive	3.59	1.78	2.87	*1.15

* - indicates consistent rating

was rated as not applicable for this group. The trainees saw themselves as moderately "open" although these ratings were not consistent. All mean ratings reported above, except as noted, were consistent.

The Experts

For the experts, the construct "reliable" was rated highest and perceived to be very characteristic. "Thorough", "flexible", "efficient" and "verbally articulate" were moderately characteristic for myself as a psychologist-trainee. The construct "defensive" was rated as moderately uncharacteristic and "authoritarian" as slightly uncharacteristic. All ratings reported were consistent.

Trainees vs. Experts

As was the case in the previous role descriptions, the Experts rated constructs in a more consistent fashion. "Reliable" was judged to be most characteristic followed by "thorough" for the Experts while the order was reversed for the Trainee group. The major difference between the two groups was that the Experts were able to consistently rate those constructs (i.e. "defensive" and "authoritarian") which they percieved to be uncharacteristic of the role description.

Role Description 4: Myself as the school psychologist I'd like to be (see Table 4)

The Trainees

Table 4

Means and Standard Deviations for Subjects' Ratings of Role Description 4 for all Constructs

Construct	Trainee (n=17) X	S.D.	Expert (n-15) X	S.D.
Experienced-Inexperienced	6.82	*0.51	7.00	*0.00
Thorough-Not Thorough	6.76	*0.42	6.93	*0.25
Defensive-Open	2.35	1.94	1.53	*0.50
Relaxed-Anxious	6.76	*0.81	5.87	1.67
Efficient-Disorganized	6.82	*0.38	6.73	*0.44
Flexible-Rigid (in values)	6.71	*0.46	6.67	*0.47
Practical-Theoretical	6.18	*1.04	6.13	*1.26
Outgoing-Reserved	5.53	*1.14	5.93	*0.85
Reliable-Unreliable	6.88	*0.32	6.93	*0.25
Verbally Articulate-Verbally Hesitant	6.65	*0.45	6.40	*0.80
Authoritarian-Permissive	3.41	1.72	2.87	*0.96

* - indicates consistent rating

The above role description is related to the subject's perception of his 'ideal self'. The constructs rated as very characteristic included "reliable", "experienced", "efficient", "thorough", "relaxed", "flexible", and "verbally articulate". "Practical" and "outgoing" were moderately characteristic. All of the above ratings exhibited a high degree of consistency. "Defensive" (implying 'open') was perceived as moderately uncharacteristic and "authoritarian" was slightly uncharacteristic. Neither of the above constructs were rated by the subjects in a consistent fashion.

The Experts

The constructs rated as most characteristic by this group were "experienced", "reliable", "thorough", "efficient", and "flexible". "Verbally articulate", "practical" and "outgoing" were seen as being moderately characteristic of the role description. "Defensive" was rated moderately uncharacteristic and "authoritarian" slightly uncharacteristic. All ratings reported were highly consistent, indicating a high degree of agreement between subjects.

Trainees vs. Experts

Subjects in both groups were able to consistently rate those constructs they felt were characteristic of the 'school psychologist I'd like to be'. Very little difference was observed in the ratings of the constructs between groups with the exception being that the Experts were more consis-

tent in their ratings of which constructs were uncharacteristic for the role description.

Comparison of Role Descriptions 3 and 4

In general constructs that were desirable (characteristic) were rated higher for role description 4 for both groups. The level of consistency was higher for the fourth role as compared to the third. The constructs "experienced", "reliable", "efficient" and "thorough" were the most highly valued in both role descriptions and "authoritarian" and "defensive" were rated least characteristic in both cases. Further, the differences between the ratings of constructs across the role descriptions was smaller for the Expert group.

Role Description 5: Myself as seen by administration in relation to psychology in the schools. (see Table 5)

The Trainees

The constructs "reliable" and "efficient" were rated as being very characteristic. Trainees felt it was moderately important to be perceived as "thorough", "flexible", "experienced", "relaxed", "practical", and "verbally articulate". The "authoritarian" and "defensive" constructs were rated as moderately uncharacteristic but, unlike the above ratings, did not demonstrate consistency.

Table 5

Means and Standard Deviations for Subjects' Ratings of Role Description 5 for All Constructs

Construct	Trainee (n=17) X	S.D.	Expert (n=15) X	S.D.
Experienced-Inexperienced	6.00	*0.91	5.47	1.75
Thorough-Not Thorough	6.43	*0.85	6.00	*1.21
Defensive-Open	3.24	2.31	2.13	*1.41
Relaxed-Anxious	5.76	*1.44	5.60	*1.08
Efficient-Disorganized	6.59	*0.49	6.20	*0.40
Flexible-Rigid (in values)	6.12	*0.76	5.93	*1.00
Practical-Theoretical	5.59	*1.19	5.47	*1.36
Outgoing-Reserved	5.71	*1.23	5.40	*1.02
Reliable-Unreliable	6.53	*0.85	6.73	*0.44
Verbally Articulate-Verbally Hesitant	5.59	*1.14	6.20	*0.54
Authoritarian-Permissive	3.76	1.66	3.07	1.53

* - indicates consistent rating

The Experts

The construct "reliable" was most characteristic of the role description. All other constructs with the exception of "experienced", "authoritarian", and "defensive" were rated consistently as moderately characteristic.

Experts vs. Trainees

The ratings assigned to the various constructs were consistent across groups with the construct "reliable" being perceived as most important for 'myself as seen by administration'. The one exception to this agreement between groups was that the construct "experienced" was rated consistently by subjects in the Trainee group but not by subjects in the Expert group.

Role Description 6: An effective instructor in my field.

(see Table 6)

The Trainees

The constructs rated very consistent for an effective instructor were "experienced", "reliable", and "thorough". Moderately characteristic constructs included "verbally articulate", "flexible", "efficient", and "relaxed". "Practical" and "outgoing" were perceived to be slightly characteristic of an effective instructor by the trainees. All other constructs were not related consistently.

The Experts

"Thorough" and "experienced" were rated as being very

Table 6

Means and Standard Deviations for Subjects' Ratings of Role Description 6 for All Constructs

Construct	Trainee (n=17) X	S.D.	Expert (n=15) X	S.D.
Experienced-Inexperienced	6.59	*0.60	6.60	*0.71
Thorough-Not Thorough	6.59	*0.69	6.67	*0.60
Defensive-Open	3.71	2.05	1.93	*1.06
Relaxed-Anxious	5.65	*1.41	5.87	1.82
Efficient-Disorganized	6.18	*1.04	6.47	*0.62
Flexible-Rigid (in values)	6.35	*0.68	6.33	*1.14
Practical-Theoretical	5.35	*1.23	5.53	1.89
Outgoing-Reserved	5.29	*1.40	5.33	*1.01
Reliable-Unreliable	6.59	*0.49	6.47	*0.81
Verbally Articulate-Verbally Hesitant	6.29	*1.02	6.47	*0.81
Authoritarian-Permissive	4.06	1.70	3.27	1.61

* - indicates consistent rating

characteristic of an effective instructor. Moderately rated constructs included "reliable", "verbally articulate", "efficient" and "flexible". The construct "defensive" was rated as moderately uncharacteristic of an effective instructor in my field.

Experts vs. Trainees

Ratings on the constructs for both groups were generally in agreement. That is, both Experts and Trainees agreed that 'an effective instructor in my field' should be characteristically "experienced", "thorough", and "reliable". Experts consistently agreed that "defensive" should be uncharacteristic of the role while Trainees were not consistent in their agreement. In terms of the moderately characteristic constructs ratings were similar between groups.

Role Description 7: An ineffective instructor in my field

(see Table 7)

The Trainees

None of the constructs rated for this role description were found to be consistent. Most of the constructs clustered around the not applicable rating. The subjects did not seem to agree on any one construct how characteristic it was of an ineffective instructor.

The Experts

The Expert group characterized an ineffective instruc-

Table 7

Means and Standard Deviations for Subjects' Ratings of Role Description 7 for All Constructs

Construct	Trainee (n=17) X	S.D.	Expert (n=15) X	S.D.
Experienced-Inexperienced	4.71	2.16	4.67	2.21
Thorough-Not Thorough	3.24	2.04	2.80	1.68
Defensive-Open	5.47	1.72	5.60	*1.31
Relaxed-Anxious	3.94	1.89	2.73	1.84
Efficient-Disorganized	2.82	1.58	2.40	*1.31
Flexible-Rigid (in values)	3.53	2.09	2.13	*0.88
Practical-Theoretical	3.00	1.71	3.73	1.91
Outgoing-Reserved	3.41	2.17	3.67	*1.35
Reliable-Unreliable	3.88	1.81	3.93	1.98
Verbally Articulate-Verbally Hesitant	4.47	1.97	4.07	1.69
Authoritarian-Permissive	4.24	2.26	5.13	1.54

* - indicates consistent rating

tor to be "rigid in values", "defensive" (as opposed to open), "disorganized", and "reserved" in a consistent fashion. All other construct ratings indicated a low agreement between subjects.

Trainees vs. Experts

Neither group exhibited a high degree of consistency rating concepts in terms of how characteristic they were of an ineffective instructor. All constructs were rated as either not applicable or uncharacteristic by both groups, with only the four mentioned above rated by the Experts expressing clear agreement.

Comparison of Role Descriptions 6 and 7

While it seems possible for both groups to reach agreement as to the constructs characteristic of an effective instructor, the reverse seems to be true when rating constructs in relation to an ineffective instructor. In addition, ratings for both groups of whether constructs are characteristic or uncharacteristic of an effective instructor are clear and tend toward the extremes of the scales; in general, ratings on the ineffective instructor tend to cluster around the neutral or not applicable area of the scale.

Role Description 8: A psychologist in the schools whose work I once admired but no longer do

(see Table 8)

Table 8

Means and Standard Deviations for Subjects' Ratings of Role Description 8 for All Constructs

Construct	Trainee (n=17) X	S.D.	Expert (n=15) X	S.D.
Experienced-Inexperienced	5.76	*1.48	6.27	*1.39
Thorough-Not Thorough	3.94	1.98	5.33	1.96
Defensive-Open	5.12	1.84	4.73	1.81
Relaxed-Anxious	3.88	1.97	3.67	1.74
Efficient-Disorganized	4.24	1.70	4.46	1.96
Flexible-Rigid (in values)	4.12	2.25	4.53	2.45
Practical-Theoretical	4.29	1.96	4.87	1.75
Outgoing-Reserved	5.06	1.70	4.73	2.05
Reliable-Unreliable	3.71	2.16	4.07	1.73
Verbally Articulate-Verbally Hesitant	5.35	1.85	5.27	1.88
Authoritarian-Permissive	4.59	2.06	3.80	1.90

* - indicates consistent rating

The Trainees

The sole consistent rating on this role description was the construct "experienced" which was seen as being moderately characteristic to the role.

The Experts

The Experts also rated "experienced" as being moderately characteristic of the role description in a consistent fashion. No other constructs were rated consistently.

Trainees vs. Experts

As was stated above, the sole consistent rating was that "experienced" is moderately characteristic of 'a psychologist in the schools whose work I once admired but no longer do'.

Role Description 9: A psychologist in the schools whose work I admire. (see Table 9)

The Trainees

Constructs noted as very characteristic of this role description were "experienced" and "thorough". Moderately characteristic constructs included "reliable", "verbally articulate", "efficient", "relaxed", "flexible", and "practical". The Trainees rated "outgoing" as being slightly characteristic of 'a psychologist in the schools whose work I admire'. All ratings reported were consistent.

The Experts

Table 9

Means and Standard Deviations for Subjects' Ratings of Role Description 9 for All Construct

Constructs	Trainee (n=17) X	S.D.	Expert (n=15) X	S.D.
Experienced-Inexperienced	6.76	*0.42	6.73	*0.44
Thorough-Not Thorough	6.71	*0.77	6.60	*0.49
Defensive-Open	2.88	1.74	1.87	1.50
Relaxed-Anxious	5.88	*1.32	5.73	1.57
Efficient-Disorganized	6.35	*0.76	6.67	*0.60
Flexible-Rigid (in values)	5.88	*1.18	6.40	*1.02
Practical-Theoretical	6.00	*1.08	5.87	*1.31
Outgoing-Reserved	5.35	*1.33	5.93	*1.39
Reliable-Unreliable	6.41	*0.84	6.60	*1.02
Verbally Articulate-Verbally Hesitant	6.35	*0.68	6.67	*0.70
Authoritarian-Permissive	3.76	1.70	3.27	1.53

* - indicates consistent rating

Included in the very characteristic rating category were the constructs "experienced", "thorough", "efficient", "reliable", and "verbally articulate". The constructs "flexible", "practical", and "outgoing" were rated as moderately characteristic. All of the above ratings of the role descriptions were judged to be consistent.

Trainees vs. Experts

In general the Expert group tends to employ more extreme ratings on all constructs which causes more ratings to be included in the very characteristic category. Further, while both groups rated the constructs "defensive" and "authoritarian" in the uncharacteristic end of the scale, insufficient agreement among subjects was reached for them to be considered consistent.

Comparison of Role Descriptions 8 and 9.

Subjects in general were able to agree consistently as to those constructs they perceived to be characteristic of a school psychologist they admire. The reverse held true for their ratings of constructs on a school psychologist whose work they no longer admire. For the latter role description ratings of constructs tended to cluster around the not applicable rating while subjects seemed able to make consistent judgements as to how characteristic the constructs were for the former role description (i.e. a school psychologist they admire).

Role Description 10: A person I feel comfortable with talking about my work. (see Table 10)

The Trainees

For the Trainees "a person I feel comfortable with talking about my work" possessed the constructs "experienced", "thorough", "verbally articulate", "reliable", and "outgoing", all of which the subjects rated consistently as being moderately characteristic for the role. No other constructs were perceived in a consistent fashion.

The Experts

The mean rating of moderately characteristic was assigned to the constructs "experienced", "thorough", "relaxed", "efficient", "flexible", "outgoing", and "verbally articulate" for the role description. Further they rated "defensive" as moderately uncharacteristic (i.e. they feel comfortable talking with someone who is 'open') and "authoritarian" as slightly uncharacteristic. All ratings reported above were judged to be consistent.

Trainees vs. Experts

Once again the Expert group's ratings tended to be more extreme and have more agreement expressed between subjects than was the case in the Trainee group. Both groups tended to agree on what constructs were characteristic of the person they felt comfortable talking about their work with. The Expert group also reached a consensus on

Table 10

Means and Standard Deviations for Subjects' Ratings of Role Description 10 for All Constructs

Constructs	Trainee (n=17) X	S.D.	Expert (N-15) X	S.D.
Experienced-Inexperienced	6.06	*1.16	6.07	*0.85
Thorough-Not Thorough	5.88	*1.32	6.20	*1.11
Defensive-Open	3.41	2.59	1.53	*0.61
Relaxed-Anxious	5.59	1.75	6.13	*0.81
Efficient-Disorganized	6.47	1.53	5.73	*1.00
Flexible-Rigid (in values)	5.88	1.53	6.00	*1.26
Practical-Theoretical	5.53	1.68	5.33	1.81
Outgoing-Reserved	5.94	*0.87	5.87	*0.88
Reliable-Unreliable	6.29	*1.45	6.13	1.54
Verbally Articulate-Verbally Hesitant	6.41	*0.84	6.33	*0.60
Authoritarian-Permissive	3.59	1.61	2.93	*1.44

* - indicates consistent rating

two constructs which were uncharacteristic of the role description (i.e. "defensive", and "authoritarian").

Role Description 11: A person I feel uncomfortable with talking about my work. (see Table 11)

The Trainees

The sole consistent rating on this role description was the construct "verbally articulate", which the Trainee rated as slightly characteristic of a person they feel uncomfortable with talking about their work. Ratings on all other constructs appeared to be variable.

The Experts

The construct "defensive" was rated moderately characteristic of a person the Experts feel uncomfortable with talking about their work, and "efficient" was rated as slightly characteristic. No other construct exhibited a consistent degree of agreement between raters.

Trainees vs. Experts

To summarize, Experts felt slightly and moderately uncomfortable (respectively) talking to an individual who was "efficient" and/or "defensive" while trainees felt moderately uncomfortable talking about their work with a verbally articulate individual. The lack of agreement between subjects on ratings of the other constructs may indicate that this role description relates to highly individualized perceptions which lead to more scatter in terms

Table 11

Means and Standard Deviations for Subjects' Ratings of Role Description 11 for All Constructs

Construct	Trainee (n=17) X	S.D.	Expert (n=15) X	S.D.
Experienced-Inexperienced	5.47	1.79	4.73	2.11
Thorough-Not Thorough	4.24	2.02	4.93	1.88
Defensive-Open	5.12	1.94	5.93	*1.12
Relaxed-Anxious	3.41	1.82	3.47	1.67
Efficient-Disorganized	4.24	2.10	5.00	*1.41
Flexible-Rigid (in values)	2.29	1.60	2.47	1.78
Practical-Theoretical	3.94	2.13	3.86	2.03
Outgoing-Reserved	4.35	1.97	4.20	1.72
Reliable-Unreliable	3.82	2.12	4.40	2.18
Verbally Articulate-Verbally Hesitant	5.41	*1.37	5.40	1.93
Authoritarian-Permissive	6.06	2.10	4.87	2.19

* - indicates consistent rating

of subjects' judgements on the various constructs.

Comparison of Role Descriptions 10 and 11.

The results indicate that subjects in both groups are more in agreement when determining which constructs are characteristic of people they feel comfortable talking to. More consistent rating for both groups were evident in role description 10. The Expert group rated consistently on more constructs than the Trainee group, and their ratings on role description 10 were in general slightly more extreme.

Summary of Results

The previous sections focused on subjects' ratings of the S.P.R.G.'s constructs for specific role descriptions. An examination of the results revealed a number of general trends, which were evident across the role descriptions, and suggested differences between the Expert and Trainee groups. The trends observed were:

1. The expert group tended to utilize the more extreme ends of the rating scale as compared to the Trainees. That is, the Experts' ratings on the S.P.R.G.'s constructs tended to be more characteristic or more uncharacteristic than those of the Trainee group.
2. The Experts' ratings on the S.P.R.G. constructs tended to be more consistent, as indicated by the fact that their ratings across all role descriptions were judged to be consistent for

seventy percent of the cells as compared to forty-six percent of the Trainees. This indicates that as a group, Experts tended to be more in agreement about how characteristic the constructs were for the various role descriptions.

3. Mean ratings for both groups were more consistent on role descriptions describing 'positive' aspects of the school psychologist. That is, when rating "a successful fellow-trainee", "a psychologist in the schools whose work I admire", "an effective instructor" and "a person I feel comfortable with talking about my work" there was greater rater agreement within groups, with eighty-two percent of the Expert sample rating consistently as compared to sixty-six percent for the Trainees. Agreement dropped substantially when rating the 'negative' aspect of the four role description pairs (i.e. "an unsuccessful trainee", "an ineffective instructor", "a psychologist in the schools whose work I once admired but no longer do", and "a person I feel uncomfortable with talking about my work") with the Experts rating constructs consistently twenty-one percent overall. In summary, for both the 'positive' and 'negative' aspects of these role descriptions, the Experts were sixteen percent more consistent than the Trainees. The level of

consistency decreased by fifty-one percent for both groups when they rated the 'negative' aspects of the role description pairs mentioned above.

4. Across role descriptions the Trainees focused on constructs that were more task oriented. Thus, they considered most important constructs related to meeting the expectations of the task at hand in a consistent manner (i.e. being 'reliable') and ensuring that as many variables as possible were accounted for (i.e. being 'thorough'). These two constructs were considered very characteristic in the majority of the role descriptions. The Trainee group as a whole was unable to agree consistently about which constructs were very uncharacteristic of a psychologist in the schools.

5. Across role descriptions the Experts tended to include the above mentioned constructs with one important addition. The construct 'flexible (in values)', which implies openness and the capacity to accept viewpoints other than one's own was also considered to be very characteristic of the school psychologist. The constructs 'defensive' and 'authoritarian' were consistently rated as very uncharacteristic. Thus for the Experts the school psychologist must not only be capable of performing tasks in a thorough and reliable manner, he must also be able to accept and utilize viewpoints

which are not always in agreement with his own.

CHAPTER VI

DISCUSSION

In this chapter, a brief summary of the study is presented followed by an overview of the S.P.R.G. role descriptions and elicited constructs in relation to the role of the school psychologist. The relationship between the trends observed in the results and the theory and research in personal construct psychology will then be discussed. Finally, limitations and implications of the study are given, as are suggestions for further research.

SUMMARY OF THE STUDY

The present study involved the development of an instrument which examined the content of the personal construct subsystem of the school psychologist. Culbertson's (1980) role descriptions were employed to elicit constructs characteristic of: successful versus unsuccessful fellow trainees, self as trainee versus self as the school psychologist I'd like to be, an effective versus an ineffective instructor, and a person I feel comfortable or uncomfortable with talking about my work. A sample of ten subjects (described in Chapter III) generated one hundred and eleven constructs from the 'elicitation grid'. Three judges sorted the construct pool, and selected eleven constructs as being representative of the clusters contained within the pool. It was suggested that the procedure and the criteria used

in the sorts yielded constructs which were common to and representative of the construct subsystem of the group. These constructs and the eleven previously mentioned role descriptions were utilized to construct the School Psychologist's Role Grid (S.P.R.G.) which is described in detail in Chapter III.

The S.P.R.G. was administered to fifteen 'Experts' and seventeen 'Trainees'. The data consisted of one hundred and twenty-one discrete ratings for each subject using Likert type seven point scale on which subjects determined how characteristic each of the constructs was for the eleven role descriptions. A mean rating was computed for each cell of the grid for both groups. The standard deviation of ratings for each cell was employed as an index of consistency, or degree of agreement between subjects, and was also computed separately for each group. An arbitrary value of 1.5 standard deviations, which allowed raters to vary one point in either direction from the mean, was used as the criterion level for consistency. Kelly's (1955) suggestion for clinical analysis of repertory grid data was utilized to examine the results in a descriptive manner.

Results reported in the previous chapter indicated that it was possible to identify most and least characteristic constructs, and differences between the groups for the different role descriptions. Rather than restating the results in an exhaustive fashion in this chapter, they

will be incorporated into the discussion as illustrations of the more general trends observed and reported in the previous chapter.

Role Descriptions and Elicited Constructs

As mentioned previously, the role descriptions employed in the present study were designed by Culbertson (1980) in an attempt to elicit constructs which would at least in part define the subsystem of psychologists in the schools. Particular emphasis was placed on eliciting constructs characterizing success in training, self as a trainee, effective instruction, and communication about work as compared to their opposite descriptions (e.g. lack of success in training).

This type of focus represents a substantial departure from the literature reviewed regarding the role and training of school psychologist in that it attempts to discover the personal constructs which constitute what Adams-Webber and Mirc (1976) have suggested is a discrete subsystem defining a role for the individual. In contrast to this type of approach the literature reviewed in the present study concerning the role and training of the school psychologist (Fine and Tyler, 1971; Graff and Clair, 1973; Hohenshil, 1974; Janzen and Reynolds, 1978; Mearig, 1974; Reger, 1975; Telzrow, 1975) focused on models of training and function (e.g. assessment expert, consultant, etc.). Thus while the results of the present study may reflect

in part the content (in the form of elicited constructs) of Brokes' (1975) Process Model which Janzen and Reynolds (1978) describe as the model utilized in the training program this sample was drawn from, the results themselves do not directly indicate support for the model itself.

As mentioned in Chapter III the constructs utilized in the construction of the S.P.R.G. were elicited from subjects involved in the teaching and supervision of one core course within the program, the course focus being individual assessment. Out of the one hundred and eleven constructs elicited, eleven were selected by independent judges to be representative of the clusters which emerged from the total construct pool of the sample.

Ideally, it would have been preferable (cf. Kelly, 1955) to have elicited constructs from each subject in the final Expert and Trainee samples. This method would not have permitted between subject comparisons however, and a compromise was reached using the following rationale. If, as Adams-Webber and Mirc (1976) suggest, a specific subsystem forms for the professional role, individuals trained within one program's construct subsystems should possess certain common elements, which reflect constructs contained within the training process. Part of the training process would therefore involve the extent to which trainees incorporated these constructs in the subsystem related to the role of school psychologist. The S.P.R.G. attempted to measure the extent to which the constructs were incor-

porated by having the Trainee subjects rate how characteristic each of the constructs were for the role descriptions and comparing these results to an 'Expert' sample. Thus while the S.P.R.G.'s constructs were supplied to rather than elicited from the subjects, they did represent characteristics elicited from, and judged to be representative of characteristics experts considered important to the role descriptions.

As Chapter V indicated, it was possible for both groups to utilize the constructs to characterize the various role descriptions. Differences between the groups were observed and reported regarding which constructs were most and least characteristic of the individual role descriptions and how consistent the ratings were. The following discussions of trends arising from the results suggests that the School Psychologist's Role Grid is a viable alternative of assessing the nature and development of the construct subsystem related to the role of school psychologist.

Discussion of Results in Relation to Personal Construct Psychology

At the most general level the results of this study provide support for Kelly's (1955) Construction Corollary which states: "a person anticipates events by construing their replications". It was possible through the use of the elicitation grid to identify constructs which subjects felt were characteristic, in varying degrees, of the role

descriptions employed in the S.P.R.G. Further, as will become evident in the following discussion, these constructs suggest at least partial support for other corollaries contained in the theory base.

The first trend reported was that the Expert group tended to utilize the more extreme ends of the rating scale, as compared to the Trainees. Kelly's (1955) Experience Corollary states: "a person's construction system varies as he successfully construes the replication of events". A study by Adams-Webber (1970a) suggests that the normal course of development of an individual's construct system involves the progressive differentiation of its structure into independently organized subsystems, and the increasing integration of the operations of these subsystems within the systems as a whole. Since one of the criteria for inclusion in the Trainee group was that they possessed no previous experience working as psychologists in the schools, it follows that they had minimal opportunities to 'construe the replication of events' that directly relate to this role. The Trainee's subsystem related to school psychology was not yet organized to the extent that it permitted more extreme judgements to be made. If, as Kelly maintains, our present construct system serves as the base from which we make our predictions, it seem logical that novices will be more moderate than their more experienced counterparts. Further support for this explanation is provided with studies by Adams-Webber (1970b) and Landfield (1968) who

suggest that rating extremity is an index of how meaningful the construct is for the individual using it. The less developed construct systems of the Trainees would be less able to ascribe meanings to the role descriptions than their Expert counterparts who had a wider experience base in relation to the role.

The ratings for role description 1: a successful fellow school psychologist in training, provide an illustration of the above mentioned observations. For the Trainee group the constructs 'reliable' and 'thorough' were rated as very characteristic of the role description in comparison to the Experts' ratings of 'flexible', 'experienced', 'reliable', and 'thorough'. The Trainees major focus was therefore to present themselves as doing work which included and accounted for the relevant aspects of the work at hand in a consistent fashion. While the Expert group agreed that these constructs were very characteristic of a successful trainee, their addition of the constructs 'flexible' and 'experienced' are important. 'Flexibility' implies that not only should the successful trainee be able to do a complete ('thorough') job of the task at hand, he should further possess a wide range of alternatives that he can select from to apply to this task. In order to be able to do this, the construct 'experienced' must be a very important characteristic of the individual. Experts also rated 'defensive' as being very uncharacteristic of this role description which, on the rate scale used, implies the

contrast pole of the construct. That is, for flexibility and experience to develop, the successful trainee should be very characteristically open to novel ideas.

In summary, it was suggested that the trend toward more extreme ratings of the constructs for the role descriptions by the Experts indicated that as a function of their experience as psychologists in the schools, their construct subsystems relating to this role was more clearly defined (meaningful) and effectively integrated than was the case in the Trainee group. This allowed the Expert subjects to make more extreme ratings on the constructs.

The second trend observed was that the Expert ratings on the S.P.R.G. were more consistent (seventy as compared to forty-six percent of the cells rated consistently), indicating a higher level of agreement between the subjects in this group. This may be explained in part by the more advanced integration of the subsystem discussed in relation to the previously observed trend. Further, Kelly's (1955) Commonality Corollary states: "to the extent that one person employs a construction of experience similar to those of the other person". The higher consistency in the Expert group suggests that more commonality exists between them than is present for the Trainees. This implies that some elements exist that are common across individuals for the role of school psychologist and that agreement of these commonalities increases as a function of increased experience.

An implication of this observation is that individuals

involved in training school psychologists might utilize the repertory grid methodology to identify and clarify constructs involved in their training program which best indicate the nature of the role they are attempting to pass on to their students. This would first allow clarification of those characteristics which the specific program feels are necessary to the role of psychologist in the schools. Second, since the extent to which one person construes the construction process of another allows him to play a role in the social process of the other person (cf. Sociality Corollary), explicit clarification of constructs directly related to professional development of the school psychologist should facilitate more understanding and effective communication between trainees and supervisors.

To illustrate, Experts in the present study felt that the construct 'defensive' was very uncharacteristic of a successful trainee. This term might be defined and utilized in any number of ways. Kelly's (1955) elicitation technique showed that in the case of the present sample the construct 'defensive' had as its contrast pole 'open' and a number of constructs clustered under the defensive-open dimension. These included inhibited-assertive, closed-open, and predictable-spontaneous. If the supervisor is aware that he is using these constructs (others included were 'reliable', 'flexible', 'thorough', and 'experienced') as part of his criterion system for identifying and characterizing successful trainees, he can develop and modify programs to focus

on these constructs. Further the trainee can more effectively play his role in the training process. Duck's (1973, 1975, 1977; Duck and Spencer, 1973) research suggests that "commonality of constructive processes is conducive to and increases the probabilities for construing another's processes and this enhances the likelihood of social communication" (p. 25). While the present study is not suggesting that the explication of constructs such as the one mentioned above (i.e. relating to a successful trainee) will guarantee a more effective training process, it is suggested that this process will contribute to better understanding and communication of various aspects considered to be important within training.

In summary a trend was observed for the Experts to be more consistent in their ratings of constructs. It was suggested that this result provided support for the existence of more commonality of construction for the Experts which indicated that the training program sampled facilitated the development of a subsystem for the role of school psychologist which possessed a number of common and identifiable constructs. It was further suggested that the identification and explication of these common constructs might facilitate the development of that subsystem of the Trainee which concerns the role of the school psychologist.

The final trend observed was that both groups tended to be more consistent in their ratings of the role descriptions which illustrated 'positive' elements for their nega-

tive counterparts. These included 'a successful fellow school psychologist in training', 'a psychologist in the schools whose work I admire' and 'a person I feel comfortable with talking about my work' as opposed to 'an unsuccessful fellow school psychologist in training', 'an ineffective instructor in my field', 'a psychologist in the schools whose work I once admired but no longer do' and 'a person I feel uncomfortable with talking about my work'. A difference in consistency of fifty-one percent was observed for both groups in favor of the 'positive' role descriptions. Further the Expert group consistency level for ratings was observed to be twenty-one percent higher than the Trainee group's in the case of both positive and negative role descriptions.

Previous discussion has suggested possible reasons for the Expert group's higher consistency level but has generally focused on positive role descriptions. Results for the negative role descriptions indicated that the Expert group rated consistently for twenty-one percent of the constructs as compared to five percent for the Trainees. Thus while the consistency level was not high, the Expert group could at least in part define what constructs were characteristic of role descriptions containing negative elements. This may be taken as further support that their construct subsystem for the role of school psychologist is more developed that the subsystem of the Trainees. That is, the subsystem also contains constructs

which serve as guidelines for determining what characteristics the role should not contain. The Trainees, in comparison, were only able to identify constructs which were uncharacteristic five percent of the time. The possibility that their construct subsystems are less integrated and defined partially explains this lack of consistency. A facet of this explanation is that the novelty of the role leads these subjects to focus on concepts which will validate their development into the role. Hence characteristic elements will be the Trainees' initial focus and their ratings will reflect this. Further the training program itself focuses on characteristic qualities and skills necessary to function as a psychologist in the schools. The Expert group on the other hand has a broader base of experience, which would include instances where constructs were tested and invalidated. These constructs might come to be defined as uncharacteristic of the school psychologist subsystem. For this sample of Experts, the constructs 'defensive' and 'authoritarian' were discovered to be the most uncharacteristic dimensions (which implies least desirable) for a school psychologist to possess.

Some research in personal construct psychology has found similar results to the present study in terms of subjects more consistently employing characteristic ratings (i.e. using the construct pole which has a positive valence). Benjafield and Adams-Webber (1976) postulate a 'golden section hypothesis' which suggests that positive information

represents a simpler concept than its negative counterpart and that the former underlies the latter. This follows Kanhouse and Hanson's (1972 ... cited in Adams-Webber, 1979) suggestion that because positive information is so common, it acts as a perceptual ground against which negative information stands out as a figure. Benjafield and Adams-Webber (1976) have suggested that the proportion of positive to negative constructs is sixty-two to thirty-eight. A count of the proportion of characteristic to uncharacteristic ratings in the present study revealed proportions similar to the above with the Trainees proportion being sixty-eight to thirty-two and the Experts seventy to thirty (i.e. characteristic to uncharacteristic ratings). Regarding the general trend that Experts rated more consistently for both characteristic and uncharacteristic ratings, it is suggested that the greater development of the Experts' construct subsystem provided them with a more clearly defined 'ground' from which the uncharacteristic elements ('figures') could be identified and rated in a consistent fashion.

In summary, it is suggested that the ability of the Experts to rate negative role descriptions more consistently is a function of their construct subsystem being more developed through experience as a psychologist in the schools. It is further suggested that the present study's results closely approximate previous findings that show subjects to utilize the similarity (positive) pole of the construct more frequently than the contrast (negative) pole.

Conclusions

At the most general level, the present study supported the possibility that Kelly's (1955) personal construct psychology is a viable approach for examining the role of the school psychologist in training. Constructs elicited from an expert sample demonstrated that common constructs existed. Differences were observed between the Expert and Trainee groups in terms of how characteristic the constructs were for the role descriptions, and how consistent the ratings themselves were. It was suggested that these findings arose from the fact that the Expert's construct subsystem were more developed and integrated than those of the Trainee's. Differences between the groups' consistency levels also suggested that the training process served to facilitate a clearly defined subsystem which defines the role of the psychologist in the schools. It should be stressed that the exploratory nature of the present study served more to generate tentative suggestions of connections between theory and research, than firmly substantiated conclusions about the various aspects of the role of the school psychologist.

Critical Evaluation and Implications for Further Research

All results in the present study were obtained from the S.P.R.G. A number of characteristics of the instrument, data collection, and analysis of the results suggest that conclusions shown be couched tentatively. The following

limitations address the above areas:

1. The S.P.R.G. employed 'supplied' constructs to obtain its results. It is possible that individual subjects assigned different meanings to the constructs which would greatly reduce the generalizability of most and least characteristic constructs selected for the various role descriptions.
2. Results were collected on only one occasion. While it was suggested that a comparison of beginning trainees and people considered to be experts would give some indication of developmental differences in the role subsystems, results could not be directly related to single subjects. Stronger support for the concept of a role subsystem which becomes more elaborated and integrated would have been possible by readministration of the S.P.R.G. to individual subjects as training progressed.
3. The mean ratings and consistency scores represented a composite picture of the subjects. Within both samples, years of experience, level of training, sex, age, and intelligence were not controlled for, which greatly reduced the number of specific conclusions that could be reached. Further these composite scores did not accurately portray individual subsystems.
4. Although some effort was directed to assessing the

reliability of the S.P.R.G., it was at best tentative. Although Kelly (1955) suggests that reliability might be taken as a measure of how insensitive an instrument is to change, it is suggested that without further and more in depth comparisons of individual grids, the present instrument's reliability must be considered with caution as the present study did not measure change for enough individual subjects over time to make reliability estimates conclusive.

5. The amount of descriptive information generated from the grid makes discussion of group results using Kelly's (1955) clinical analysis very cumbersome in a group study. Information selected from these results for discussion may reflect biases of the experimenter.

6. Results of the present study were generated from the population of a single training program and reflect its characteristics rather than more generally defining a subsystem related to the role of psychologist in the schools.

Thus while the results indicate at a general level the subsystem's characteristics as perceived by the two groups, the method of analysis used in the present study may present results which are not appropriate to individual subjects. The following suggestions are made for further research:

1. That the S.P.R.G. be modified to include a com-

bination of representative constructs that the trainers feel are important and constructs which are elicited from the trainees. This would allow more individual elaboration of the subsystem.

2. A construct pool could be formed and sorted in an identical manner to the present study but utilizing a trainee sample to establish whether ratings of constructs would increase in terms of their commonality and consistency for the Trainee group. If the trends observed in the present study were reversed in favor of the Trainees, results would highlight differences between the subsystems of Trainees and Experts as well as indicating areas of agreement.

3. That administration and analysis of the grid be done on an individual basis, and that the grid be readministered as the training program continues. This would provide the trainee and supervisor with a qualitative record of the development of the subsystem and allow for individual identification of areas of strength and weakness.

4. Future studies should include a control grid which would serve to indicate whether changes that occur during training are specific to certain subsystems, or have a wider impact on the construct system as a whole.

5. The present study focused on a university population.

Further research could be done comparing these results with psychologists presently working in the schools; teachers, and administrators. The grid format could be used as an information generating device which would permit identification of constructs underlying agreement and/or conflict.

BIBLIOGRAPHY

BIBLIOGRAPHY

Adams-Webber, J. Cognitive complexity and sociality. British Journal of Social and Clincial Psychology, 1969, 8, 211-216.

Adams-Webber, J. Actual Structure and potential chaos. In D. Bannister (ed.) Perspectives in Personal Construct theory. London: Academic Press, 1970.

Adams-Webber, J. Elicited versus provided constructs in repertory grid technique: a review. British Journal of Medical Psychology. 1970b, 43, 349-354.

Adams-Webber, J. R. Personal Construct Theory Concepts and Applications. New York: John Wiley & Sons, 1979.

Adams-Webber, J. and Benjafield, J. The relation between lexical marking and rating extremity in interpersonal judgement. Canadian Journal of Behavioral Science, 1973, 5, 234-241.

Adams-Webber, J. and Benjafield, J. Pollyanna's private self (1974) in J. Adams-Webber Personal Construct Theory Concepts and Applications. New York: John Wiley & Sons, 1979.

Ashley, R. W. The contribution of information theory to pathological mechanisms in psychiatry. British Journal of Psychiatry, 1968, 114, 1485-1498.

Bannister, D. and Fransella, F. Grid Test of Schizophrenic Thought Disorder. Devon: Psychological Test Publications, 1967.

Bannister, D., Fransella, F. and Agnew, J. Characteristics and validity of the grid test of thought disorder. British Journal of Social and Clinical Psychology, 1971, 10, 144-151.

Bannister, D. and Main, J. The Evaluation of Personal Constructs. London: Academic Press, 1968.

Bannister, D. and Salmon, P. Schizophrenic thought disorder: specific or diffuse? British Journal of Medical Psychology. 1966, 39, 215-219.

Bavelas, J. B., Chan, A. S., and Guthrie, J. A. Reliability and validity of traits measured by Kelly's repertory grid. Canadian Journal of Behavioral Science. 1976, 8, 23-28.

Benjafield, J. and Adams-Webber, J. Assimilation projection and construct balance. British Journal of Psychology, 1975, 66, 169-173.

Benjafield, J. and Adams-Webber, J. The golden section hypothesis. British Journal of Psychology, 1976, 67, 11-15.

Bieri, J. Cognitive complexity - simplicity and predictive behavior. Journal of Abnormal and Social Psychology, 1955, 51, 263-268.

Bieri, J. and Blacker, E. The generality of cognitive complexity in the perception of people and ink blots. Journal of Abnormal and Social Psychology, 1956, 53. 112-117.

Bonarius, J. C. "Research in personal construct psychology" in B. Maher (ed.) Progress in Experimental Research. London: Academic Press, 1965, 2.

Brokes, A. A process model of consultation. In Clyde A. Parker (ed.) Psychological Consultation Helping Teachers Meet Special Needs. Minneapolis: University of Minnesota, 1975.

Crockett, W. H. Cognitive complexity and impression formation. In B. A. Maher (ed.), Progress in Experimental Personality Research. New York: Academic Press, 1965, 2.

Crockett, W. H. and Meisel, P. Construct connectedness, strength of disconfirmation and impression change. Journal of Personality. 1974, 42, 290-299.

Culbertson, F. - personal correspondence, April, 1980.

Duck, S. W. and Spencer, C. Personal constructs and friendship formation. Journal of Personality and Social Psychology, 1972, 23, 40-45.

Duck, S. W. Personal Relationships and Personal Constructs: A Study of Friendship Formation. London: Wiley, 1973.

Duck, S. W. Personality similarity and friendship choices by adolescents. European Journal of Psychology, 1975, 5, 351-365.

Duck, S. W. Inquiry, hypothesis, and the question validation: personal construct systems in the development of acquaintance. In S. W. Duck (ed.) Theory and Practice in Interpersonal Attraction. London: Academic Press, 1977.

Fine, M. J. and Tyler, M. M. Concerns and directions in teacher consultation. Journal of School Psychology, 1971, v, 371-376.

Fjeld, S. P. and Landfield, A. E. Personal construct consistency. Psychological Reports, 1961, 8, 127-129.

Fransella, F. Self concept and the stutterer. British Journal of Psychiatry, 1968, 144, 1531-1535.

Fransella, F. The stutterer as subject or object? In D. B. Grey and G. England (eds.) Stuttering and Conditioning Therapies. Monterey, California: Institute of Speech and Hearing, 1969.

Fransella, F. Personal Change and Reconstruction. London: Academic Press, 1972.

Fransella, F. and Adams, B. An illustration of the repertory grid technique in a clinical setting. British Journal of Social and Clinical Psychology, 1966, 5, 51-62.

Graff, M. and Clair, T. Requirements for certification of school psychologists. American Psychologist, 1973, 28, 704-709.

Hall, C. S. and Lindzey, G. Theories of Personality. New York: Wiley, 1957.

Hersen, M. and Barlow, D. Single Case Experimental Designs New York: Pergamon Press, 1976.

Hinkle, D. N. The change of personal constructs from the viewpoint of a theory of implications. Unpublished Ph. D. thesis, Ohio State University, 1965.

Hohenshil, T. The vocational school psychologist. A speciality in quest of a program. Journal of School Psychology, 1974, 11, 16-18.

Honess, T. Cognitive complexity and social prediction. British Journal of Social and Clinical Psychology, 1976, 15, 23-32.

Honikman, B. Construct theory as an approach to architectural and environmental design. In P. Slater (ed.) Explorations of Intrapersonal Space. London: Wiley, 1976, 1.

Hunt, D. E. Studies in role concept repertory: conceptual consistency. Unpublished M.A. thesis, Ohio State University, 1951.

Ivey, A. E. Counselling and Psychotherapy: Skills, theories and practice. New Jersey: Prentice-Hall Inc., 1980.

Janzen, J. and Reynolds, M. T. History, Needs, Assessment and a Model of Training School Psychologists. Paper presented at Second Annual International Conference of School Psychology, London, 1978.

Kelly, G. A. The Psychology of Personal Constructs, New York: Norton, 1955, 1 & 2.

Kelly, G. A. A Theory of Personality: The Psychology of Personal Constructs. New York: Norton, 1963.

Kelly, G. A. A brief introduction to personal construct theory. Unpublished manuscript. Brandeis University, 1966. In Bannister and Mair, (eds) The Evolution of Personal Constructs. London: Academic Press, 1968.

Kelly, G. A. Clinical Psychology and Personality: The Selected Papers of George Kelly (B. A. Maher, ed.) New York: Wiley, 1969.

Kelly, G. A. "A brief introduction to personal construct theory" in D. Bannister (ed.) Perspectives in Personal Construct Theory. London: Academic Press, 1970.

Kelly, G. A. "Personal Construct Theory" in T. Millon (ed.) Theories of Psychopathology and Personality. Toronto: W. B. Saunders Co., 1973.

Knowles, J. and Purves, C. The use of repertory grid technique to assess the influence of the subject - experimenter relationship in verbal conditioning. Bulletin of British Psychology and Sociology, 1965, 18, 59.

Kuhn, T. S. The structure of scientific revolutions. Second edition. Chicago, Ill.: University of Chicago Press, 1970.

Landfield, A. W. The extremity rating revisited within the context of personal construct psychology. British Journal of Medical Psychology, 1968, 7, 135-139.

Landfield, A. and Nawas, M. Psychotherapeutic improvement as a function of communication and adoption of therapist's values. Journal of Counselling Psychology, 1964, 11, 336-341.

Levy, L. H. Conceptions of Personality: theories and research New York: Random House, 1970.

Liftshitz, M. Quality professionals: does training make a difference? A personal construct theory study of the issue. British Journal of Social and Clinical Psychology. 1974, 13, 183-189.

Mair, J. M. Psychologists are human too. In D. Bannister (ed.) Perspective in Personal Construct Theory. London: Academic Press, 1970a.

Mair, J. M. Experimenting with individuals. British Journal of Medical Psychology. 1970b, 43, 245-256

Makhlouf-Norris, F., H. G. Jones, and H. Norris. Articulation of the conceptual structure in the obsessional neuroses. British Journal of Social and Clinical Psychology, 1970, 9, 264-274.

Mearig, J. On becoming a child advocate in school, psychology Journal of School Psychology, 1974, 12 (2), 121-129.

Meyers, J. A. A consultive model for school psychological services. Journal of School Psychology, 1973, 11, 5-15.

Meyers, J. A. Training school psychologists for a consultation role. The School Psychologist Digest, 1978, 7, 26-32.

Neisser, U. Cognitive Psychology. New York: Appleton-Century-Crofts, 1967.

Pervin, L. A. Personality: Theory, Assessment and Research, Second Edition. New York: John Wiley & Sons, Inc., 1975.

Piaget, J. The Psychology of Intelligence. New York: Harcourt-Brace, 1960.

Radley, A. R. Schizophrenic thought disorder and the nature of personal constructs. British Journal of Social and Clinical Psychology, 1974, 13, 315-327.

Reger, R. Review of school psychological materials. Journal of School Psychology, 1975, 13(1), 82-83.

Ryle, A. Frame & Cages: The Repertory Grid Approach to Human Understanding. London: University of Sussex Press, 1975.

Ryle, A. Some clinical applications of grid technique. In P. Slater (ed.) Explorations in Intrapersonal Space. London: Wiley, 1976.

Ryle A., and D. Breen A comparison of adjusted and maladjusted couples using the double dyad grid. British Journal of Medical Psychology, 1972, 45, 375-382.

Ryle, A., and D. Breen Change in the course of social work training: a repertory grid study. British Journal of Medical Psychology, 1974, 47, 139-147.

Shotter, J. Men, the man-makers: George Kelly and the Psychology of Personal Constructs. In D. Bannister (ed.) Perspectives in Personal Construct Theory, London: Academic Press, 1970.

Skinner, B. F. Science and human behavior. New York: MacMillan, 1953.

Smith, S. and Leach, C. A hierarchical measure of cognitive complexity. British Journal of Psychology, 1972, 63, 561-568.

Stringer, P. The demands of personal construct theory: a commentary. In G. T. Moore and R. G. Colledge (eds). Environmental Knowing: Theories, Research and Methods Strandsberg, Pa.: Dowden Hutchison & Ross, 1976.

Telzrow, C. The school psychologist as director of career education. Psychology in the Schools. 1975, 12 (2) 197-200.

Werner, H. Comparative Psychology of Mental Development. New York: International Universities Press, 1957.

APPENDIX A

THE ELICITATION-GRID

The accompanying form represents a listing of persons or roles that persons might play in relation to your work or training as a psychologist in the school. Responses to this form must be completed in the following manner:

PART A

For each role on the list, write in the name or initials of the person who best fits the role description for you. If no one fits the description exactly, select the individual who best approximates it. DO NOT USE THE SAME INDIVIDUAL FOR MORE THAN ONE ROLE DESCRIPTION. If the role list seems to call for a duplicate name, substitute the name of the person who next best fits the role.

PART B

Step 1. Now look at the first row in the matrix. Note that there are circles in the squares under the columns numbered 1, 3, and 10. Consider the three individuals whom you have listed for these role descriptions. In what important way are two of these three people alike and at the same time, essentially different from the third?

Step 2. Fill in the circles of the two that are alike so that they are solid.

Step 3. In the column marked "CONSTRUCT", write down, in a w[illegible] or phrase, the important way that these two people

[illegible]. Write, in the column marked "CONTRAST", the o[illegible]f the word or phrase you wrote in the first column.

[illegible] 5. Repeat Steps 1 through 4 for the remaining ro[illegible]ing the circles in each row to determine which three pe[illegible]re to be compared.

PART C

[illegible]he final section solicits background information rega[illegible]ing educational and vocational experiences. Information [illegible]rom this and all other sections will be treated in the stri[illegible]test confidence. Thank you for your assistance.

1. Age ___ Sex ___ Name (optional) _____

2. Degr[illegible] held: Degree _____ University _____

_____ _____

_____ _____

3. Current degree program: _____

4. Have you ever been employed as a teacher? Yes ___ No ___
a. If Yes for how long? ____ b. Where? _____

5. Have you ever been employed as a psychologist in the sch[illegible]ls? Yes ___ No ___ a. If Yes for how long? _____
b. [illegible]ere _____

O											O	1	a successful fellow school psychologist in training
	O									O		2	an unsuccessful fellow school psychologist in training
O	O	O	O	O	O	O	O	O	O	O	O	3	myself as a psychologist-trainee in the schools
O		O	O					O				4	myself as the school psychologist I'd like to be
				O			O					5	myself as seen by administration in relation to psych. in the schools
						O		O				6	an effective instructor in my field
					O				O			7	an ineffective instructor in my field
				O	O							8	a psychologist in the schools whose work I once admired but no longer do
			O			O						9	a psychologist in the schools whose work I admire
		O									O	10	a person I feel comfortable with talking about my work
	O						O					11	a person I feel uncomfortable with talking about my work
11	10	9	8	7	6	5	4	3	2	1			
													CONSTRUCT
													CONTRAST

APPENDIX B

CONSTRUCTS ELICITED

	Construct Pole	Contrast Pole
1.	active orientation to therapy	professional distance from client-student
2.	lack of aptitude	tendency to have unrealistic expectations of client-student
3.	able to delegate authority effectively	assumes too much responsibility
4.	impatience with shortcomings	competence
5.	willingness to innovate in spite of criticism	tendency to placate
6.	perfectionistic	tendency to give up or abandon difficult cases
7.	tendency to overlook some available alternatives	completes task as required
8.	tendency to procrastinate on major or uninteresting tasks	gets tasks done on time
9.	works well as a team member	tendency to isolate self; reluctance to consult others
10.	tendency to focus on details without appreciating larger issues	able to comprehend situations and see implications
11.	broad range of assessment and treatment skills	well developed skills in a relatively narrow area
12.	trustworthy	unreliable
13.	rigid	flexible
14.	self-confident	reserved
15.	assertive	inhibited
16.	relaxed	tense
17.	preoccupied	attentive
18.	helpful	confusing

19.	warm - caring	unresponsive
20.	spontaneous	inhibited
21.	authoritarian	permissive
22.	patient	impatient
23.	practical	impractical
24.	histrionic	underspoken
25.	intensely knowledgeable	mildly knowledgeable
26.	methodical	absent minded
27.	verbal finesse	verbal stumbling
28.	efficient	inefficient
29.	intense	flippant
30.	reserved	ebullient
31.	quick witted	reflective
32.	opportunist	conscientious
33.	temperamental	consistent
34.	concern about children	lack of concern
35.	not persistent	persistent
36.	analytical	not analytical
37.	conscientious	unconscientious
38.	current technically	not current technically
39.	concern	lack of concern
40.	thorough	not thorough
41.	excellent report writer	poor report writer
42.	easy going	not easy going
43.	flighty	serious
44.	reliable	unreliable
45.	egalitarian	authoritarian

46.	uptight	relaxed
47.	experienced	inexperienced
48.	willing to enter a mutual learning experience	a 'know it all'
49.	confidence due to experience	unconfident due to lack of experience
50.	pretentious	relaxed
51.	quiet competence	flashy
52.	knowledge based experience	lack of knowledge based experience
53.	ease in explaining difficult concepts in a simple way	difficulty in explaining concepts clearly
54.	defensive and artificial	open and natural
55.	inexperienced	experienced
56.	dedicated	job doesn't take priority over family life
57.	irresponsible	fulfills required duties.
58.	confidence from experience	unsure from lack of experience
59.	flexible.	rigid (in values)
60.	capacity for immense understanding of others	less experienced in the field.
61.	lack of knowledge	concerned about up-dating knowledge
62.	competent	disappointing
63.	efficient	disorganized
64.	reserved with others	well organized
65.	non-judgmental	judgemental
66.	under pressures of time	enough time to do all that needs to be done

67.	practical	theoretical
68.	difficulty relating to people	ease relating to people
69.	experienced	inexperienced
70.	organized	disorganized
71.	less directive	more directive
72.	greater self-confidence	less self-confidence
73.	relaxed	anxious
74.	more perceptive	less perceptive
75.	accepting of others	less accepting of others
76.	egocentric	exocentric
77.	realistic	idealistic
78.	understanding	rigid
79.	impatient	patient
80.	ordered	changing
81.	nurturant	harsh
82.	aggressive	submissive
83.	high standards	low standards
84.	respectable	denigrated
85.	reassuring	paternalistic
86.	companionable	argumentative
87.	dependent	autonomous
88.	excitement	reflective
89.	emotionally stable	unstable
90.	intellectually rigid	flexible
91.	spontaneous (behaviorally)	predictable (controlled)

92.	trusting	suspicious
93.	friendly	distant
94.	lacking integrity	ethical
95.	humanistic	egocentric
96.	seeking positive growth and change	locked into negative experience
97.	intellectual	realistic
98.	defensive	open
99.	self-confident	uncertain
100.	open	closed
101.	honest	dishonest
102.	outgoing	reserved
103.	effective	ineffective
104.	quiet	noisy
105.	unsuspecting	plotting
106.	capable	incapable
107.	ambitious	unambitious
108.	reliable	unreliable
109.	successful	unsuccessful
110.	articulate	hesitating

APPENDIX C

JUDGES SORTS OF CONSTRUCTS

Judge 1

Cluster 1

40.	thorough	not thorough *
26.	methodical	absent-minded
32.	opportunistic	conscientious
37.	conscientious	unconscientious
6.	perfectionistic	tendency to give up or abandon difficult cases
7.	tendency to overlook some available alternatives	completes task as required

Cluster 2

108.	reliable	unreliable *
44.	reliable	unreliable
57.	irresponsible	fulfills required duties
12.	trustworthy	unreliable

Cluster 3

59.	flexible	rigid (in values) *
13.	rigid	flexible
90.	intellectually rigid	flexible
78.	understanding	rigid

Cluster 4

73.	relaxed	anxious *
50.	pretentious	relaxed
46.	uptight	relaxed
42.	easy-going	not easy-going
16.	relaxed	tense

Cluster 5

67.	practical	theoretical *
97.	intellectual	realistic
77.	realistic	idealistic
23.	practical	impractical

Cluster 6

69.	experienced	inexperienced *
106.	capable	incapable
58.	confidence from experience	unsure from lack of experience

* - constructs underlined were selected as representative of the clusters.

Cluster 6 (continued)

61.	lack of knowledge	concerned about updating knowledge
62.	competent	disappointing
47.	experienced	inexperienced
49.	confidence due to experience	unconfident due to lack of experience
52.	knowledge-based experience	lack of knowledge-based experience
55.	inexperienced	experienced
25.	intensely knowledgeable	mildly knowledgeable

Cluster 7

63.	efficient	disorganized *
28.	efficient	inefficient
66.	under pressure of time	enough time to do all that needs to be done
70.	organized	disorganized
103.	effective	ineffective

Cluster 8

102.	outgoing	reserved *
43.	flighty	serious
29.	intense	flippant
30.	reserved	ebulliant

Cluster 9

110.	articulate	hesitant *
68.	difficulty relating to people	ease relating to people
53.	ease in explaining difficult concepts in a simple way	difficulty in explaining difficult concepts clearly
27.	verbalffitness	verbal stumbling

Cluster 10

98.	defensive	open *
54.	defensive and artificial	open and natural
100.	open	closed
15.	assertive	uninhibited
20.	spontaneous	inhibited
91.	spontaneous (behaviorally)	predictable (controlled)

Cluster 11

21.	authoritarian	permissive *
45.	egalitarian	authoritarian
71.	less directive	more directive

Judge 2

Cluster 1

98.	defensive	open *
80.	ordered	changing
48.	willing to enter a mutual learning experience	a 'know it all'
54.	defensive and artificial	open and natural
90.	intellectually rigid	flexible
92.	trusting	suspicious
78.	understanding	rigid
91.	spontaneous (behaviorally)	predictable (controlled)
68.	difficulty relating to people	ease relating to people
99.	self-confident	uncertain
100.	open	closed

Cluster 2

44.	reliable	unreliable *
84.	respectable	denigrated
101.	honest	dishonest
105.	unsuspecting	plotting
8.	tendency to procrastinate on major or uninteresting tasks	gets tasks done on time
34.	concern about children	lack of concern
108.	reliable	unreliable
12.	trustworthy	reliable
57.	irresponsible	fulfills required duties
94.	lacking integrity	ethical
107.	ambitious	unambitious
62.	competent	disappointing
32.	opportunist	conscientious
109.	successful	unsuccessful
106.	capable	incapable

Cluster 3

63.	efficient	disorganized *
18.	helpful	confusing
70.	organized	disorganized
103.	effective	ineffective
28.	efficient	inefficient

Cluster 4

40.	thorough	not thorough *
41.	excellent report writer	poor report writer

Cluster 4 (continued)

83.	high standards	low standards
7.	tendency to overlook some available alternatives	completes task as required
56.	dedicated	job doesn't take priority over family life
6.	perfectionistic	tendency to give up or abandon difficult cases
66.	under pressures of time	enough time to do all that needs to be done
10.	tendency to focus on details without appreciating larger issues	able to comprehend situations and see implications
4.	impatience with shortcomings	competence
26.	methodical	absent minded
35.	not persistent	persistent
38.	current technically	not current technically
25.	intensely knowledgeable	mildly knowledgeable
11.	broad range of assessment and treatment skills	well developed skills in a relatively narrow area

Cluster 5

67.	practical	theoretical *
77.	realistic	idealistic
36.	analytical	not analytical
97.	intellectual	realistic
23.	practical	impractical

Cluster 6

21.	authoritarian	permissive *
86.	companionable	argumentative
85.	reassuring	paternalistic
45.	egalitarian	authoritarian
81.	nurturant	harsh
82.	aggressive	submissive
71.	less directive	more directive
65.	non-judgmental	judgmental

Cluster 7

59.	flexible	rigid (in values) *
96.	seeking positive growth	locked into negative experiences

Cluster 7 (continued)

2.	lack of aptitude	tendency to have unrealistic expectations of client/student
5.	willingness to inovate in spite of criticisms	tendency to placate
13.	rigid	flexible

Cluster 8

73.	relaxed	anxious *
79.	impatient	patient
29.	intense	flippant
43.	flighty	serious
33.	temperamental	consistent
89.	emotionally stable	unstable
53.	ease in explaining difficult concepts in a simple way	difficulty in explaining difficult concepts clearly
95.	humanistic	egocentric
42.	easy going	not easy going
50.	pretentious	relaxed
46.	uptight	relaxed
16.	relaxed	tense
74.	more perceptive	less perceptive
22.	patient	impatient

Cluster 9

110.	articulate	hesitating *
88.	excitement	reflective
31.	quick witted	reflective
24.	histrionic	underspoken
27.	verbal finesse	verbal stumbling
15.	assertive	inhibited

Cluster 10

102.	outgoing	reserved *
76.	egocentric	exocentric
104.	quiet	noisy
37.	conscientious	unconscientious
51.	quiet competence	flashy
17.	preoccupied	attentive
87.	dependent	autonomous
1.	active orientation to therapy	professional distance from client-student
20.	spontaneous	inhibited
19.	warm-caring	unresponsive
72.	greater-self confidence	little self-confidence
75.	accepting of others	less accepting of others

Cluster 10 (continued)

93.	[illegible]ly	distant
14.	[illegible]nfident	reserved
9.	[illegible]ell as a team	tendency to isolate self; reluctance to consult others
3.	[illegible] to delegate	assumes too much re-
	[illegible]hority effectively	sponsibility
0.	[illegible]served	ebullient
4.	[illegible]eserved with others	well organized

Cluster [illegible]

[illegible]	experienced	inexperienced *
6[illegible]	lack of knowledge	concerned with updating knowledge
6[illegible]	capacity for immense understanding of others	less experienced in the field
69.	experienced	inexperienced
55.	inexperienced	experienced
58.	confidence from experience	unsure from lack of experience
49.	confidence due to experience	unconfident due to lack of experience
52.	knowledge based [illegible]perience	lack of knowledge based experience

Judge 3

Cluster 1

108.	reliable	unreliable *
44.	reliable	unreliable
57.	irresponsible	fulfills required duties
12.	trustworthy	unreliable
62.	competent	disappointing
109.	successful	unsuccessful

Cluster 2

63.	efficient	disorganized *
18.	helpful	confusing
70.	organized	disorganized
103.	effective	ineffective
28.	efficient	inefficient

Cluster 3

110.	articulate	hesitating *
88.	excitement	reflective
31.	quick witted	reflective

Cluster 3 (continued)

24.	histrionic	underspoken
15.	assertive	inhibited

Cluster 4

40.	thorough	not thorough *
26.	methodical	absent minded
6.	perfectionistic	tendency to isolate self, reluctance to consult others
7.	tendency to overlook available alternative	completes task as required
37.	conscientious	unconscientious
83.	high standards	low standards

Cluster 5

98.	defensive	open *
15.	assertive	inhibited
20.	spontaneous	inhibited
91.	spontaneous (behaviorally)	predictable (controlled)
54.	defensive and artificial	open and natural
48.	willing to enter a mutual learning experience	a 'know it all'
80.	ordered	changing

Cluster 6

102.	outgoing	reserved *
29.	intense	flippant
30.	reserved	ebullient
43.	flighty	serious
51.	quiet competence	flashy
9.	works well as a team member	tendency to isolate self, reluctance to consult others
64.	reserved with others	well organized
37.	conscientious	unconscientious

Cluster 7

47.	experienced	inexperienced *
61.	lack of knowledge	concerned about updating knowledge
69.	experienced	inexperienced
55.	inexperienced	experienced
49.	confidence due to experience	unconfident due to lack of experience
52.	knowledge based experience	lack of knowledge based experience

Cluster 7 (continued)

60.	capacity of immense understanding of others	less experienced in the field
106.	capable	incapable

Cluster 8

73.	relaxed	anxious *
42.	easy going	not easy going
43.	flighty	serious
79.	impatient	patient
16.	relaxed	anxious
22.	patient	impatient
33.	temperamental	consistent
89.	emotionally stable	unstable

Cluster 9

21.	authoritarian	permissive *
45.	egalitarian	authoritarian
65.	non-judgemental	judgemental
85.	reassuring	paternalistic
71.	less directive	more directive
86.	companionable	argumentative

Cluster 10

59.	flexible	rigid (in values) *
13.	rigid	flexible
96.	seeking positive growth and change	locked into negative experiences
78.	understanding	rigid
2.	lack of aptitude	tendency to have unrealistic expectations of client/student

Cluster 11

67.	practical	theoretical *
97.	intellectual	realistic
23.	practical	impractical
77.	realistic	idealistic

APPENDIX D

CONSTRUCT DEFINITIONS

The following definitions represent aggregate compositions solicited from the Expert sample:

1. experienced - inexperienced
   Activity which includes training, observation or practice, and personal participation. The knowledge and skills obtained result in an individual being 'experienced'.

2. thorough - not thorough
   A task orientation which is exact and accurate, especially in regards to the details which are addressed.

3. defensive - open
   A position in which the individual feels he must continually justify his actions to protect himself from the feedback and criticism of others. As contrasted with 'open' where the individual invites feedback without feeling that it constituess a threat to his own actions and integrity.

4. relaxed - anxious
   To become less tense and looser in relation to perception of self and presentation to others of role performance. As opposed to 'anxious' which implies uneasiness and apprehension about the performance of the role and others perception of this performance.

5. efficient - disorganized
   The individual is able to produce the desired result with a minimum of effort, expense or waste. Also implies working well, in a competent fashion. Disorganized implied a lack of efficiency.

6. flexible - rigid (in values)
   The individual is able to adapt and accommodate to change, is open to recognizing viewpoints other than his own. The converse, 'rigid' implies a lack of flexibility which suggests that the individual has a single focus that others may either be included or excluded from.

7. practical - theoretical
   For this sample 'practical' implied a pragmatic task oriented approach which focuses on satisfactory completion of the task, and maximal use of skills and resources without necessarily relating results back to any one theory base. Theoretical implied that the individual's major focus was on defining more abstract elements that relate to the tasks at hand.

8. outgoing - reserved
'Outgoing' for this sample implied an individual willing to share thoughts and feelings with others as opposed to 'reserved' which implied a tendency to be reticent and avoid close contact with fellow students and/or workers.

9. reliable - unreliable
For this sample 'reliable' implied that the individual was to be trusted, worthy of confidence, and could be depended on to complete tasks assigned in a complete and competent fashion. The reverse of the characteristics was implied for 'unreliability'.

10. verbally articulate - verbally hesitant
The 'verbally articulate' individual is able to express concepts and finding in such a manner that they clearly express the information being disseminated. This contrasts with the 'verbally hesitant' individual whose communication of information is unclear as a function of the halting and tentative manner in which it is presented.

11. authoritarian - permissive
For this sample 'authoritarian' implied an individual who believes in and subscribed to unquestioning obedience to authority as opposed to a 'permissive' individual who supports individual freedom of judgement and action.

APPENDIX E

THE SCHOOL PSYCHOLOGISTS'S ROLE GRID

INSTRUCTIONS

The accompanying form shows a list of person/role descriptions that relate to psychology in the schools.

PART A

Turn to page 2 and look at the matrix. It is composed of columns with the role descriptions described across the top, and rows of constructs divided into "CONSTRUCT" and "CONTRAST" parts, which are listed along the sides (e.g. experienced-inexperienced). Note that it is possible to compare each construct with each role by moving across the columns from left to right.

PART B

Look at the first role description (i.e. "a successful fellow school psychologist in training") and think of the individual you know who best fits the description. Place his/her initials next to the description. Perform the same task for each of the ten other roles. DO NOT REPEAT NAMES. If the role listed seems to call for a duplicate name, substitute the name of the person who next best fits the role.

PART C

Step 1. Examine the seven point scale at the top right corner of page 2. You will be using the scale to rate each construct for each role description.

Step 2. Now look at the first row which contains the construct: experienced-inexperienced and think of what this dimension means for you.

Step 3. Go to the far left of the page (i.e. role description 1.) and rate this construct on the seven point scale for role 1 (e.g. If I feel that experience is very characteristic of a successful trainee I would place a 7 in that square).

Step 4. Repeat Step 3 for the other ten role descriptions (i.e. rate role 2,3,4...11 for the construct "experienced-inexperienced", moving from left to right.

Step 5. Go to construct 2 "thorough-not thorough" and rate it for each of the role descriptions.

Step 6. Rate the remaining constructs in the same manner, repeating Steps 2 through 4. When you have completed the task, please check to ensure that you have a rating for each of the squares.

THANK YOU FOR YOUR COOPERATION AND TIME.

Use the following rating system:

7. very characteristic
6. moderately characteristic
5. slightly characteristic
4. neutral, or not applicable
3. slightly uncharacteristic
2. moderately uncharacteristic
1. very uncharacteristic

ROLE DESCRIPTION:	a successful fellow school psychologist in training	an unsuccessful fellow school psychologist in training	myself as the school psychologist-trainee in the school	myself as the school psychologist I'd like to be	relation to be an effective school psychologist as seen by admin. in my field	an ineffective instructor in schools	a psychologist in my field	a psychologist in schools whose work I once admired	a psychologist in the schools whose work I admire	a person I feel comfortable with talking about my work	a person I feel uncomfortable with talking about my work
1	2	3	4	5	6	7	8	9	10	11	
											1
											2
											3
											4
											5
											6
											7
											8
											9
											10
											11

	CONSTRUCT	CONTRAST
1	experienced	inexperienced
2	thorough	not thorough
3	defensive	open
4	relaxed	anxious
5	efficient	disorganized
6	flexible	rigid (in values)
7	practical	theoretical
8	outgoing	reserved
9	reliable	unreliable
10	verbally articulate	verbally hesitant
11	authoritarian	permissive

PART D

The final section solicits background information regarding educational and vocational experiences. Information from this and all other sections will be treated in the strictest confidence.

1. Age ____ Sex ____ Name (optional) _____

2. Degrees held: Degree _____ University _____

_____ _____

_____ _____

3. Current degree program: _____

4. Courses completed: _____ _____

_____ _____

_____ _____

5. Have you ever been employed as a teacher? Yes ___ No ___

a. If yes for how long? _____ b. Where? _____

6. Have you ever been employed as a psychologist in the schools? Yes ____ No ____

a. If yes for how long? _____ Where? _____