A QUALITATIVE ANALYSIS OF HOW EXPERTS USE AND INTERPRET THE KINETIC SCHOOL DRAWING TECHNIQUE

by

Andrea Wendy Zians

A thesis submitted in conformity with the requirements for the degree of master of arts
Department of Human Development and Applied Psychology
Ontario Institute for Studies in Education of the University of Toronto

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Three expert clinicians were interviewed about their Kinetic School Drawing (KSD) interpretation methods. A sample KSD picture was given to the experts and three non-experts to analyze. Variation in the experts' analyses and differences in the experts and non-experts interpretation methods were seen.

Similar picture elements are analyzed by the experts. They look at interpersonal relationships, detail, picture style, and age appropriate drawing behaviour. Pictures are also analyzed globally.

Data concerning the processes involved in generating and substantiating picture hypotheses was also uncovered. Results of this study indicate that the process of interpretation used by the experts are multi-faceted, and dynamic. Current empirical studies and interpretation guidelines do not adequately address this procedure.

Non-expert usage of this tool is cautioned. Training and supervision are required in order to achieve competent and accurate use of this procedure.

II
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Chapter One

Speaking, acting, writing, and drawing are all normal everyday activities. Sometimes we reveal information about ourselves in the way we behave while engaged in these activities. A person can speak about their unhappiness, and betray emotional trouble. Another person's sense of humor reveals a terrific personality, and an author's writing can exhibit great intelligence. Drawing, another form of communication also discloses information about the artist's personality, intelligence, concerns and attitudes.

The belief that certain behaviours impart information about ourselves is part of the projective theory. The projective theory suggests that our own ideas and interpretations are imposed upon unstructured stimuli (Rabin, 1968). Psychologists and psychiatrists have studied this phenomenon in an attempt to better understand the human being. As early as the nineteenth century, psychiatrists have been interested in human response to unstructured visual stimuli such as inkblots (Rabin, 1968). The inkblot was one of the very first projective techniques (Rabin, 1968).

Today there are many projective techniques. These instruments are designed to elicit especially sensitive and subconscious aspects of our behaviour. They allow for a variety of responses and reveal the private world and personality process of the subject (Rabin, 1968).

The projective drawing procedure is an interesting and
clinically useful form of projective testing. It is assumed that clients project their private and subconscious feelings into pictures they draw. This thesis is designed to study a projective drawing technique (PDT) called the Kinetic School Drawing (KSD) (Prout & Phillips, 1974; Sarbaugh, 1974). There are many ways to interpret the data within projective drawings. The following review of the literature is a condensed but succinct summary of the theories and interpretation methods found within the literature.

**Projective Drawing Techniques**

The projective drawing technique is popular with psychologists who assess children (Koppitz, 1968). Prout (1983) surveyed school psychology practitioners and graduate students and discovered that projective drawing techniques were used "always" or "frequently" within the assessment of social emotional status.

Human figure drawings were used "always or frequently" by 83% of the practitioners surveyed. The House-Tree-Person (Buck & Hammer, 1948) was used "always or frequently" by 63% of the practitioners surveyed, and the Kinetic Family Drawing (Burns & Kaufman, 1972) was used "almost always" by 62% of the practitioners in the survey.

The projective drawing technique is popular because it is easy to use and enables the clinician to establish a quick and easy camaraderie with the child (Di Leo, 1983). The projective drawing procedure is easy and economical to administer (Hammer, 1971) and provides the practitioner with rich clinical data.
Children's drawings provide an adequate estimate of intelligence (Goodenough, 1926; Harris, 1963), self-perception (Koppitz, 1968; Machover, 1949), social emotional status (Burns & Kaufman, 1970; Burns & Kaufman, 1972; Di Leo, 1970; Di Leo, 1983; Koppitz, 1968; Machover, 1949; Sarbaugh, 1982), depict the child's view of him/herself in the family (Burns & Kaufman, 1970; Burns & Kaufman, 1972) and within the school setting (Andrews & Janzen, 1988; Knoff & Prout, 1985; Prout & Phillips, 1974; Prout & Celmer, 1984; Sarbaugh, 1982). There is also a vast amount of literature which outlines how drawings can reveal the child's cognitive and visual-motor development (Cox, 1993; Eng, 1970; Goodnow, 1977).

Drawing tends to be an interesting and fun way to begin an assessment (Anatasi, 1982; Di Leo, 1983; Koppitz, 1983). These techniques are a safe and non-threatening outlet for children to express personal feelings and attitudes. They also work well with children who are language deficient, shy, or unable to speak the same language as the clinician (Di Leo, 1983; Sarbaugh, 1982).

History and Development of Projective Drawing Techniques

The first drawing assessment device (Draw a Man, D-A-M) was created by Goodenough (1926) and later revised by Harris (1963). The test was originally intended as a device for measuring intellectual and conceptual maturity (Harris, 1963; Hammer, 1968; Burns & Kaufman, 1970). The child was asked to draw a picture of a man. Goodenough (1926) assumed that children draw with greater detail, when knowledgeable about the subject they are drawing (Goodenough, 1926). Detail therefore became the measure by which
intelligence was assessed. Points or scores were given for appropriate detail contained within the picture. The points were then correlated or converted to match an intellectual age (Goodenough, 1926; Harris, 1963). All in all the procedure achieved good ratings for both reliability and validity (Cox, 1993).

Use of the D-A-M as an intelligence scale led to the discovery that personality, feelings and attitudes were being revealed within the pictures (Goodenough, 1926; Harris, 1963; Hammer, 1968; Machover, 1949; Koppitz, 1968). Practitioners were puzzled because two children with very similar IQ's could draw the human figure so qualitatively differently (Hammer, 1968; Machover, 1949; Koppitz, 1968). It was quite possible for two children to receive the same points for including hands in their drawing, even though the quality of the hands were quite different. One child's picture could depict open, relaxed hands, and the other could contain clenched fists or hands in a pocket (Hammer, 1968).

What were the things that a child chose to include or exclude in the drawing telling the clinician about the child? What did these differences mean? It became apparent that the qualitative diagnostic information contained within the picture could be as valuable if not more valuable than the information provided about the child's intellectual capabilities (Hammer, 1968). The analysis of these drawing differences based upon both psychoanalytic theory and personality assessment gave birth to the projective drawing technique (Thomas & Silk, 1990).
One of the first projective drawing techniques was the House-Tree-Person (HTP), (Buck & Hammer, 1948). The client is asked to draw a house, a tree and a person. The house supposedly yields information about the child's home and familial relationships, the tree depicts feelings about the child's development and relationship with the environment and the person represents the child's view of him/herself and the ideal self (Burns & Kaufman, 1970).

The human figure is perhaps one of the most common things drawn by children (Cox, 1993; Di Leo, 1983; Eng, 1970; Koppitz, 1968), and tends to yield abundant diagnostic information for the clinician. Koppitz (1968) and Machover (1949) saw the drawing of a person as a self portrait or drawing of the idealized self. Both used the projective theory to understand abnormal signs and emotional indicators found within the drawing of the human figure. Koppitz (1968) also worked on understanding the human figure drawing from a developmental perspective.

The Draw a Family (DAF) by Hulse (1951) is a projective drawing technique in which the child is asked to draw his/her family. The picture's content is analyzed for subconscious projections. The clinical data obtained from the picture are limited due to the static portrayal of family life. This passivity does not yield much data about family dynamics, and relationships (Burns & Kaufman, 1970; Burns & Kaufman, 1972).

Burns and Kaufman (1970) compensated for this inertia by asking the child to draw his/her family engaged in an activity.
This element of action, or energy can be analyzed to reveal information about family dynamics, and relationships (Burns & Kaufman, 1970). The new procedure was called the Kinetic Family Drawing (KFD) (Burns & Kaufman, 1970). The KFD became an invaluable tool to the clinician working with young children (Burns & Kaufman, 1970; Di Leo, 1983; Knoff & Prout, 1985; Prout & Celmer, 1984; Sarbaugh, 1982).

Prout and Phillips (1974) made a simple adaptation to the KFD to create a new procedure called the Kinetic School Drawing (KSD). The KSD is similar to the KFD in the sense that the child is given the directions to draw a school picture with everyone in the picture engaged in activity.

The picture is then analyzed in the same fashion as the KFD. The signs, symbols, actions and styles used with the KFD, are also used with the KSD (Prout & Phillips, 1974). The picture supposedly yields data about the child's self perception, attitudes towards school and his/her significant others, self concept, and peer acceptance (Prout & Phillips, 1974).

To date there are only a handful of validity studies done on the KSD. A few of these studies will be briefly described at this point. We will deal with this topic again in greater detail when discussing objective scoring procedures for the KSD.

When the KSD was initially introduced, the authors claimed that studies on the KFD's validity and reliability should be generalized to the KSD, since the KSD was considered a slight variation of the KFD (Knoff & Prout, 1985).
To date there are a handful of validity studies reported within the KFD literature (Knoff & Prout, 1985). The results of these studies are inconclusive. For every study which demonstrated validity another study demonstrated a lack of it. In addition to this, an equal amount of validity studies proved to be inconclusive.

The results of the KFD reliability research indicated that there was high inter-rater reliability on objectified scoring procedures when the raters were trained to use the procedure. However the studies demonstrated low test-retest reliability (Knoff & Prout, 1985).

There is only a handful of KSD specific studies. Within the literature the KSD has achieved validity for specific measures in relation to academic achievement (Prout & Celmer, 1984), and specific drawing characteristics discriminated between learning disabled and non learning disabled when using Andrews and Janzen's (1988) global procedure of KSD interpretation.

A study by Schneider (1978) found that the KSD failed to demonstrate accurate validity. Walton (1983) claimed that her studies are proof of the tool's inherent validity; however, these have been criticized for the sampling methods, and uncontrolled variables like age and IQ, which render generalizability of the study to the population at large impossible (Knoff & Prout, 1985).

Aside from the data contained in Andrews and Janzen's (1988) Global Scoring Procedure there is an absence of studies concerning the reliability of the KSD.
It is important to note that procedures like the KSD, (as with many of the other projective techniques), have not attained acceptance by the more scientifically oriented clinician (Anatasi, 1982; Di Leo, 1983). Authors of projective procedures have yet to establish adequate norms, validity, and reliability (Anatasi, 1982; Peterson & Batsche, 1983; Salvia & Ysseldyke, 1981) for their techniques. These procedures are generally viewed as high inference techniques, which do not truly reflect the personality of the subject but the clinician's own view of the world and view of his/her client (Anastasi, 1982; Peterson & Batsche, 1983).

Despite these criticisms, clinicians who use the projective drawing procedure are convinced of their clinical utility (Anatasi, 1982). These clinicians have claimed that the procedure is not a test and should not be expected to meet the regular scientific requirements of a test (Anatasi, 1982; Di Leo, 1983; Knoff, 1983; Mostkoff & Lazarus 1983; Sarbaugh, 1982; Thomas & Silk, 1990). They have claimed that the projective drawing technique is a procedure which provides clinical insights and information in the same way that a clinical interview would. The intuitive approach of intangibles such as self image, feelings, conflicts, and relationships resist quantification (Sarbaugh, 1982).

Advocates of the procedure admit that the projective drawing procedure should not be used on its own. It is one small part of the clinician's battery, and can provide information that regular standardized tests are unable to supply (Di Leo, 1983). They also
claim that the final validity of the procedure rests within the skill and competence of the examiner using it (Anatasi, 1982; Di Leo, 1983; Koppitz, 1983).

Those who know the value of projectives use them, despite the lack of empirical support (Di Leo, 1983). When used by a competent and skilled examiner the procedure can yield valuable information which the clinician is unable to or unwilling to do without.

The Kinetic School Drawing (KSD)

The KSD is the focus of this thesis. The KSD is useful for all school related assessments. It has been cited as useful with children with verbal expression difficulties (Di Leo, 1983; Sarbaugh, 1982) and it can also be used with large groups of children in order to measure perception of the teacher (Prout & Phillips, 1974; Sarbaugh, 1982).

The KSD filled a void in the school psychologist's projective assessment battery. It was the first projective tool which dealt with the school setting (Knoff & Prout, 1985; Prout & Phillips, 1974; Soloman & Starr, 1968; Schneider, 1978). Today, within the school setting the KSD and KFD are given together to yield information about the two most influential settings of the child's life (Knoff & Prout, 1985; Sarbaugh, 1982; Schneider, 1978).

This thesis will deal specifically with the emotional and personality issues which a student can reveal in the drawings of their classroom. It is important to point this out, as the projective drawing procedure can be used to identify student's
conceptual and intellectual maturity (Rogers & Wright, 1971). and
cognitive development (Cox, 1993; Eng, 1970; Goodnow, 1977) as well.

Despite the fact, that this thesis will not deal with these
two areas in children's drawings it is necessary to point out that
clinicians using the KSD (or other projective drawing procedures)
should have a thorough understanding of both normal, and abnormal
drawing behaviour. Having a thorough understanding of drawing
behaviour reduces the risk of misdiagnosis and over-interpretation
(Cox, 1993; Di Leo, 1983; Sarbaugh, 1982).

Interpreting children's drawings without an understanding of
how children draw at various age levels leaves the clinician
vulnerable to misinterpretation. For instance, a strict
projective approach to drawing interpretation could cause the
clinician to neglect other causes for certain drawing behaviours.
For example, the literature associates a large head as a clinical
sign indicating concern for intellect (Di Leo, 1983). Cox (1993)
points out that there is a certain point in a child's development
when a large head is more of a reflection of a young child's
inability to plan and coordinate his/her drawing than of
pathology.

This thesis is designed to specifically understand and
examine how expert clinicians use and interpret the KSD based upon
the projective technique. However in the process the researcher
intends to look at some of the conceptual and intellectual data
that the expert clinicians investigate and incorporate into their
Scoring of Projective Drawing Techniques

Machover (1949) and Koppitz (1968; 1983) studied and analyzed the human figure drawing (HFD). They found that HFD's revealed information about the client's personality, and sense of self.

Machover (1949) wrote based upon her vast clinical experience with her patients and their human figure drawings. She used guidelines of personality analysis and psycho-analytic theory to formulate a method of studying the human figure drawing (Machover, 1949). She is criticized for her lack of empirical evidence to validate her theories (Cox, 1993). As a result, signs and drawing styles which she has written about are not given credibility by her critics. However, her critics still concede that her D-A-P test is a good global personality assessment device (Cox, 1993).

The system Machover (1949) has developed for analyzing human figure drawings is quite extensive. She considers many different variables.

The size of the figure, where it is placed on the sheet, the rapidity of graphic movement, the pressure, the solidity and variability of line used, the succession of parts drawn, the stance, the use of background or grounding effects, the extension of the arms toward the body or away from it, the spontaneity or rigidity, whether the figure is drawn profile or front view are all important aspects of the subject's self-presentation. In analysis, consideration is also given to the proportions of each part of the body, the tendency to incompletions, the amount of detailing and the area of concentration of detail, the amount and focus of reinforcements, of erasures and line changes, the degree of symmetry, treatment of mid line, and above all, the mood expressed in the face or in the postural tone of the figure (Machover, 1949 p. 35).

Koppitz's (1968) personality analysis guidelines were based
theories achieved more acceptance in the sense that they were not based solely upon her vast clinical knowledge. She sought to offer some scientific proof for her assumptions (Cox, 1993).

Koppitz (1968) created a list or inventory of normal and abnormal indicators found within children's human figure drawings. There are 30 developmental items, and 38 emotional indicators. The developmental items are an inventory or set of norms for normal drawing development. These items can give the clinician an understanding about the child's conceptual and cognitive development.

The emotional indicators do not reflect a child's development and maturation, they are considered to be reflection of the child's anxieties, concerns, and attitudes. The emotional indicators are items which Koppitz found occurred very rarely or infrequently in normal children's drawings and were often indicative of a problem.

For instance, shading of the hands was found to be a valid emotional indicator at the age 7 for boys and 8 for girls. After this age the shading of hands was most often found on the drawings of clinic patients and youngsters who steal. Although shading of the hands was not related to a specific activity it was indicative of anxiety over some real or imagined activities involving the hands (Koppitz, 1968). Aggressive behaviour could be revealed in long arms, which Koppitz (1968) found was drawn more often by aggressive children.
Each of Koppitz's (1968) emotional indicators met three criteria: (a) It had clinical validity, (b) It was an unusual drawing characteristic which occurred infrequently within the drawings of normal children, and (c) It was not related to age and maturation. The following is a condensed list of emotional indicators on HFDs which were considered valid for boys and girls aged 5-12 unless otherwise indicated.

Quality Signs: (a) poor integration of parts of figure, (boys 7, girls 6); (b) shading of face, shading of body and/or limbs (boys 9, girls 8); (c) shading of hands and/or neck (boys 8, girls 7); (d) gross asymmetry of limbs; (e) shading figure; (f) axis of figure tilted by 15 degrees or more; (g) tiny figure; (h) two inches high or less; (i) big figure, nine inches or more in height (boys and girls 8); (j) transparencies.

Special Features: (a) tiny head; (b) head less than 1/10th of total figure in height; (c) crossed eyes both eyes turned in or out; (d) teeth; (e) short arms, arms not long enough to reach waistline; (f) long arms, arms long enough to reach knee line; (g) arms clinging to side of body; (h) big hands, hands as large as face of figure; (i) hands cut off, arms without hands or fingers (hidden hands not scored); (j) legs pressed together; (k) genitals; (l) monster or grotesque figure; (m) three or more figures spontaneously drawn; (n) clouds; (o) rain; (p) snow.

Omissions: (a) no eyes; (b) no nose (boys 6, girls 5); (c) no body; (d) no arms (boys 6, girls 5); (f) no legs; (g) no feet (boys 9, girls 7); (h) no neck (boys 10, girls 9). (Koppitz, 1968)
Koppitz (1968) pointed out that when a clinician found any of the previously mentioned indicators, it was a signal for further investigation. She instructed that these emotional indicators need to be used in context of all the information that the clinician knows about the child. She also established that the occurrence of a single indicator by itself did not warrant concern until it was proven to be indicative of a problem. A clinician should also ensure that the hypotheses that are derived from the picture are cross checked and validated against other vital data like developmental level, and social/cultural issues (Cox, 1993; Koppitz, 1968).

Koppitz (1968) also provided instruction as to which other factors need to be taken into consideration while assessing a picture. The first is how the child drew, the second is whom the child drew, and the third is what the child was trying to say in their picture (Koppitz, 1968). When all these factors are combined with a careful interview and intake procedure the ensuing interpretations can be yield vital data about the child's emotional situation and personality.

**Kinetic drawings: Signs, symbols and Actions.** Koppitz (1969) and Machover (1949) sought to understand the human figure drawing as a reflection of personality and feelings of self worth. Their work lead to growth in other areas of the literature. Writers became interested in not only the solitary human figure but the drawing of the self in relation to other drawn figures (Burns &
Kaufman, 1970; Di Leo, 1983; Prout & Phillips, 1974; Sarbaugh, 1982). Clinicians like Di Leo (1970) and Burns and Kaufman, (1970) proceeded to the next step, and investigated drawings as an indication of emotional disturbance and deviance (Cox, 1993). Actions, styles, signs and symbols found within the picture were studied and these authors looked at a more global assessment of pictures as opposed to the specific analysis of details (Burns & Kaufman, 1972; Di Leo, 1983; Silk, 1990).

Burns and Kaufman (1970) made a major contribution to the field with their KFD (Kinetic Family Drawing). They provided invaluable insight into the analysis of picture content, actions, symbols and styles of family drawings. Their work became the basis for the analysis of future procedures like the KSD (Andrews & Janzen 1988; Knoff & Prout, 1985; Prout & Phillips, 1974; Sarbaugh, 1982).

Burns and Kaufman (1972) described how the typical well adjusted child drew his/her family. The authors suggested that human figures which appeared in the drawings should be analyzed in accordance with the guidelines set out by Machover and Koppitz (Burns & Kaufman, 1970).

The new element of the picture, action, was defined as energy or movement between people and was analyzed for the intensity and kind of energy depicted. Normal actions depicted harmony and showed no signs of barriers, conflicts or anxieties. Other types of energies depicted were: (a) competition and non-competition, (ball being thrown and to whom it is being thrown to); (b)
avoidance, (barriers set up around family member to avoid energy); and (c) anxiety (Burns and Kaufman, 1970, 1972).

Burns and Kaufman (1972) described the analysis of styles found within these sort of drawings. Abnormal styles were (a) compartmentalization, (b) encapsulation, (c) lining at bottom of the page, (d) underlining individual figures, (f) edging, and (g) lining at the top of the page. They also provided an extensive list of symbols found within children's family drawings and their meanings.

Based upon his own experiences and clinical cases, Di Leo (1970, 1983) made great contributions to the analysis of children's drawings. He stressed a holistic approach, as opposed to a narrow view of the specific details and indicators inherent in the picture. He suggested that the clinician take stock of the individual items and then consider them in context to each other and the entire picture. He recommended obtaining a first impression of the picture. This involved noting how various items fit in and whether or not the global impressions meshed with the specific signs inherent within the picture (Di Leo, 1983). He wrote that any analysis which failed to incorporate these two elements was prone to the pitfalls of misinterpretation.

Di Leo (1983) also stressed that the following characteristics should be of concern to the clinician (a) the size of human figures, (b) depiction of movement, (c) which sex drawn first, (d) omissions of self from family group, (e) omission of family members, (f) refusal to draw, (g) and geometric figures.
Signs and symbols in the picture should be noted and analyzed and the clinician had to discern if the symbol had any validity in relation to the child they were observing. He pointed out that details gained significance when other parts of the picture coincided.

Di Leo (1983) also cautioned not to neglect the child's developmental level when attributing psychological significance to picture items. Depending upon the age of the child, certain items within the picture may take on a conceptual or affective meaning.

**Perceptual and organic difficulties.** Di Leo's earlier works (1970) outlined how drawings can reveal information about the child's perceptual functioning. Di Leo (1970) provided norms for when a child should be able to replicate specific geometric shapes. These norms reflected what a clinician can expect in terms of visual motor performance from children at an early age.

Di Leo (1970) outlined how impaired ability to reproduce certain geometric forms and shapes reflects perceptual difficulties, and cerebral dysfunction. For example he noted that age in-appropriate rotations and difficulty in copying patterns, revealed perceptual difficulties. Gross and fine motor awkwardness, impulsive, vigourous scribbling and disparity between drawn concept of body image and mental age as revealed in other tests reflected cerebral dysfunction.

He also discussed the projective indicators typically found in drawings of children with organic disorders such as deafness,
and central language disorders. It is interesting to note that deaf children tended to portray their human figures without ears and mouths (Di Leo, 1970).

**A word about expertise.** From this brief overview of the literature it is apparent how truly complex and intricate the assessment of children's art can be. A drawing can be assessed for intelligence, emotional content, and cognitive and perceptual development. A healthy perspective of children's drawing development and an understanding of the projective aspects of drawing is also vital (Cox, 1990; Di Leo, 1983).

With proper use, the projective drawing technique can be an extremely valuable tool (Anatasi, 1982; Di Leo, 1970; Di Leo, 1983; Hammer, 1968; Koppitz, 1968; Koppitz, 1983; Sarbaugh, 1982). Clinicians who use the technique are cautioned to use sound clinical judgement. Failure to do so, could lead to misdiagnosis and over interpretation (Anatasi, 1982; Cox, 1993; Di Leo, 1983).

Too much attention to the signs and symbols found within the picture can cause the clinician to overlook the global meaning and intention of the picture (Andrews & Janzen, 1988; Di Leo, 1983; Sarbaugh, 1982). Likewise an inadequate working knowledge of the developmental stages of drawing can also lead to misdiagnosis. Cox (1993) warns practitioners to be sure that signs they believe to be indicative of emotional disturbance are not merely a reflection of the child's cognitive ability.

It appears from the literature that the lines between what is normal and abnormal often cross, and the clinician is responsible
to ensure that he/she can keep them straight within his/her assessment. A clinician must have the ability to observe and interpret what the picture is saying (Koppitz, 1968). He/she cannot rely on scoring systems or checklists when analyzing pictures (Anatasi, 1982; Di Leo, 1983; Koppitz, 1968). These "cook book approaches" (Koppitz, 1968) are deplorable, as they leave the clinician vulnerable to misdiagnose and misinterpret the picture (Anatasi, 1982; Di Leo, 1983; Koppitz, 1968). These scoring procedures often do not take into account many important variables such as the child's sex, intelligence and socio-cultural background (Koppitz, 1968). Sarbaugh (1982) describes the pitfalls of scoring lists and keys.

One may be enticed into believing that there is an absolute, a quantity, an entity. Not being provided with a particular kind of visual filter means that one must make assumptions, arrive at hypotheses, look for verification, try out new ideas, and continue a process of interacting with the available material. In terms of dynamics of the child's personality, one strong factor may outweigh many minor ones, but if one is counting factors, this critical point is all too easily ignored. (Sarbaugh, 1982 p.64)

There is another problem with scoring systems. As we have already stated, those who use the projective drawing procedure disagreed with attempts to elevate this clinical procedure to the status of a test. As a result they also objected to efforts which subjected these procedures to the usual psychometric analysis (Di Leo, 1983; Knoff, 1983; Sarbaugh, 1982).

Objectifying and quantifying these procedures is not only unproductive from a clinical perspective, but it can also be misleading. Scoring procedures imply that the scores and
interpretations are objective and quantifiable, and that the procedure can be used in much the same way as a test would be used (Anatasi, 1982). Advocates of this tool stressed that its value as a clinical tool lay within the skilled clinician's ability to use the procedure as a qualitative clinical procedure (Anatasi, 1982).

Hammer (1968) described a study which looked at psychologists who used projective art procedures. The purpose of the study was to examine how different clinicians made inferences about pictures. The clinicians in the study were put into two categories. The first group of clinicians used an affective approach when assessing the drawings. The second group employed a more cognitive approach. The first group used their intuition and obtained a feeling for the picture's message, while the second group searched the pictures for signs and symbols. The results of the study showed that the first group of psychologists were able to diagnostically sort the pictures while the second group who intellectualized the task were unable to do so (Hammer, 1968).

Hammer (1968) clearly pointed out that there are two types of clinicians. Those who can and cannot use the tool.

My own experience, derived from teaching the Annual Summer Workshop in Projective Drawings, is that in the hands of some students projective drawings are an exquisitely sensitive tool, and in the hands of others, those employing a wooden, stilted approach, they are like disconnected phones (Hammer, 1968 p 385).

**Scoring procedures and manuals.** In an attempt to make KSD
interpretation easier and more accessible to everyone, authors have created scoring systems for the KSD, and tried to quantify and objectify the procedure.

When Prout and Phillips (1974) first introduced the KSD they indicated to those interested in using this new tool that the interpretation of the KSD was very similar to the interpretation of the KFD. In fact the two were so similar that the KSD became known as a simple variation of the KFD (Knoff & Prout, 1985; Prout & Phillips, 1974; Prout & Celmer, 1984).

Initially, the only practical guidelines for using the KSD were to interpret it using the same methods one would use in interpreting the KFD (Prout & Phillips, 1974). These guidelines were quite vague and did not reflect the KSD specific signs and styles (Sarbaugh, 1982).

Prout and Celmer (1984) looked at the concurrent validity of the KSD. They matched KSD variables and academic achievement measurements. Although they reported their findings to be modest given the size of the sample, they also claimed that they were encouraging. Six out of the ten variables that they assessed correlated significantly with academic achievement, and three others approached significance. The measures which significantly correlated were (a) number of peers, (b) Reynolds score, (c) self drawing engaged in undesirable behaviour, (d) child's height, (e) teacher height, and (f) self engaged in academic behaviour. In short they concluded that low achieving children tended to draw smaller teacher and self figures. Lower achieving students also
included more peers in their drawings and placed themselves further away from both their peers and teachers. The drawings that low achieving children produced had a higher number of emotional indicators. These children also drew themselves outside of the classroom or engaged in non-academic behaviour, with the opposite phenomena found with higher achieving students. These variables served as the first KSD guidelines which could be clinically useful for the practitioner.

Knoff and Prout (1985) produced a manual for the Kinetic Family and School. The manual contained norms, validity and reliability studies and had a scoring protocol for professionals interested in using the KFD and KSD together.

There were administration guidelines, interpretation ideas and a checklist for both the KFD and KSD. The drawing characteristics in the checklists were divided into the following categories (a) actions of and between figures, (b) figure characteristics, (c) position, (d) distance and barriers, (e) style, and (f) symbols. After the checklist was an interview guideline to help the clinician glean more information from the student.

The checklist is useful in the sense that its categories and items contained many of the drawing items found within the literature. However, it falls short in the sense that it does not contain any validity or reliability data. Also, the checklist created by the authors does not provide the clinician with data other than a accumulation of picture data. The clinician is not
given any guidelines on how to develop hypotheses from the checklist.

Andrews and Janzen (1988) created a Global Approach to scoring the KSD. The authors wrote that it was necessary for there to be a scoring procedure which would (a) reflect the extensive literature necessary to evaluate children's drawings, and (b) reflect the global feeling the picture was trying to convey. The authors also wrote that a global scoring procedure was more likely to attain empirical support, and that there was less risk of misinterpreting the message of the picture.

The authors noted that the literature stressed the importance of assessing pictures globally (Burns & Kaufman, 1970; Di Leo, 1983; Hammer, 1958; Prout & Celmer, 1984; Reynolds, 1978; Sarbaugh, 1982) yet did not explain exactly how to do it. The scoring procedure created by Andrews and Janzen (1988) reflected their attempt to create guidelines for global analysis. The variables and associated indicators included in their reference guide and scoring sheet were: (a) drawing suggests pathology, (b) drawing suggests positive self concept, (c) emphasis on structure, (d) drawer is likeable, (e) visible action agrees with verbal description, (f) visible action and/or verbal description appears strange or unexpected, (g) self or other figures are highly distorted such that without verbal description it would not be recognizable, (h) activity of child, (i) activity of child in relation to peers, (j) activity of teacher, (k) problems indicated in student teacher relationship, (l) activities self and peers are
engaged in, (m) problems indicated in peer relationship, (n) self placement, (o) self behaviour, (p) self engaged in academic or non academic behaviour, (q) pathology indicated in the drawing.

The scoring sheet came with a reference guide that explained to the clinician how to assess some of the variables found within the scoring system. Analysis of certain variables like positive self-concept, pathology, structure, likeability, did not come with adequate interpretation guidelines. Assessment of these variables depends upon the clinician's personal knowledge of the literature and clinical experience.

Andrews and Janzen (1988) also provided preliminary evidence for their procedure. What they found was quite encouraging. They found that the inter rater reliability was good for well defined characteristics, but picture elements which were harder to objectify like self concept did not achieve adequate measures of inter rater reliability.

In terms of validity, they found that there were definite patterns in how non-learning disabled (nld) and learning disabled (ld) children drew school pictures. In short these patterns were (a) significantly more nlds than lds drew with structure, (b) drawings achieved likeable ratings, (c) drew positive interactions with peers and drew themselves engaged in similar activities to their peers and teachers.

They also found that significantly more ld's drew strange representations, drew pictures which rated negative interactions with peers, drew the self engaged in dissimilar activities from
interactions. LD's tended to draw significantly more pictures outside of the school and the self engaged in undesirable behaviour. They also represented the maximum amount of evidence of depression, impulsivity, school problems and moderate evidence of competition and minimal evidence of sexual concerns and moderate degrees of insecurity and independence.

The scoring sheet and reference guide is good in the sense that it presents a global sense of the message of the picture, and achieves measures of validity and reliability. But it is clearly lacking in the sense that it is (according to the authors) a tool designed for clinicians who already know how to use the KSD. In short it does not provide the new and inexperienced clinician much assistance or guidance in assessing constructs which are harder to define.

Sarbaugh (1982) wrote a monograph for the Illinois School Psychologists' Association. Sarbaugh, a school psychologist with vast experience with the KD-S, outlined some of her insights and interpretation ideas. The result of the monograph was a well written, candid portrayal of how one experienced clinician uses the School drawing procedure within the school setting.

Sarbaugh's (1982) interpretations did not reflect the entire range of the literature. Instead, it was a neat compilation of how she realistically and competently uses the tool.

She discussed the adaptations she has made to Burns and Kaufman (1970, 1972) interpretation guidelines to meet the school
setting's criteria. Her interpretation manual relied heavily upon Burns and Kaufman (1970, 1972) and the genre of symbols created within the PDT literature. She balanced this, with a good dose of scepticism and stressed that the clinician must be wary of misinterpretation as sometimes a symbol or drawing style which causes concern in other projective drawing procedures, like the KFD can be absolutely normal in the school drawing procedure.

Take for instance the symbolism of lights. Within the family drawing lights reflect a need for nurturing and warmth (Burns & Kaufman, 1972). Sarbaugh (1982) pointed out that lights can be more common in a school picture because of the vast amount of lighting in most classrooms. She described which types of light symbolism was normal and which types warranted further investigation.

Her monograph also illustrated how she assessed the following KSD specific areas: (a) symbolism, (b) developmental level expectations, (c) viewpoints, (d) transparencies, (e) and size comparisons, (f) features common to the KD-S, the KFD, and other projectives, (g) insecurity and desire for support, (h) anxiety and need for controls, (i) interpersonal difficulties and hostility, (j) color usage, (k) KD-S unique features like humor and hostility, (l) and interviewing guidelines for the school psychologist.

Despite the insights we can glean from her monograph we are not left with any specific guidelines, scoring procedures, or interpretation instructions. In fact she is criticized for this
ambiguity which essentially rendered her manual useless to the less experienced and new clinician (Peterson, 1982). Further criticism dealt with the fact that she neglected to provide illustration as to how she arrived at many of her hypotheses.

The major means of demonstrating this technique is through the presentation of numerous, brief case excerpts. However, all excerpts are selected by and interpreted by a single assessor, the author, according to her own experiences and clinical judgements in uncontrolled settings. No clear-cut rules for interpreting responses and no standardized scoring procedures are provided. Consider some of the questions we asked ourselves about the interpretations. What determined the identification of repetitive content as "compulsive" in Pictures 56 and 61. (Sachs Wise, 1982 p. 71).

Conclusions

In conclusion, one can look at the scoring procedures, manuals, reference guides, interpretation guidelines, and validity studies available for the KSD and realize that there is not enough information or guidance available to the new or in-experienced clinician. Furthermore we see from the literature review that an over-reliance on checklists, and so on leaves the clinician vulnerable and ineffective. On the other hand single expert case illustrations and KSD testimony does not constitute a manual.

Is there any other way to be of assistance to the new and inexperienced clinician? Is it possible to provide him/her with guidelines or interpretation methods without necessarily quantifying or objectifying the procedure?

There are many questions that remain unanswered from the literature. One is how can a clinician pick up this expertise or
clinical intuition? What makes one a skilled and artful examiner? Is it vast clinical experience, knowledge of the literature, or a unique inherent intuitive knack? Are there truly differences in the way that the skilled and unskilled clinician use this technique? What can be learned from these differences if they do exist? What can be learned from how the experts use and interpret the KSD? The question concerning reliability and validity of the tool in connection with actual practice also needs to be explored.

This study will look at data derived from interviews with KSD experts about their KSD usage and interpretations. A qualitative content analysis of the themes which address these questions will be undertaken. It is hoped that the information that these skilled practitioners offer will be helpful in providing assistance to those who are less experienced and adept with the tool.
Chapter Two

Methodology

Research Questions

1) How do experts analyze and interpret a KSD picture, what strategies do they use?
2) Are there similarities or differences in their styles?
3) How do non-experts analyze a KSD picture?
4) Are there differences in how the experts and non-experts analyze a KSD picture?
5) What if anything, can non-expert clinicians learn from the expert clinician?
6) How does the expert clinician's analysis of the KSD protocol relate to the literature on the projective drawing technique?

Participants

Expert clinicians. In order to uncover expertise knowledge which is relevant to this inquiry, three expert clinicians were specifically chosen by the principal investigator. These clinicians have been deemed experts by their colleagues and peers. They have had many years of clinical experience with the KSD and have demonstrated a proficiency with the tool in either their writings about the tool or in their clinical practices.

Each of the three experts are women, and have been employed in a school psychology position for a minimum of twenty years. They have been using the KSD for at least ten years. They have
received a great deal of clinical training in the area of projective assessment. In addition to this they all have taken upon themselves to master and acquire an in-depth understanding of the literature on the projective drawing procedures. They also stressed that they received supervision from a highly competent supervisor. In an attempt to conceal their identity they will be referred by pseudonym.

**Non-experts.** An equal number of non-experts was selected. They were practitioners currently use the KSD in practice yet feel that their own knowledge and KSD skill level is not sufficient. These non-experts were recruited through confidential petitioning by the principal investigator.

**Procedure**

Prior to any data collection an ethics review was completed following the usual procedures at the Ontario Institute for Studies in Education. A KSD picture and its accompanying case history was taken from archival files at a local educational counselling centre. All information which served to identify the school / student or agency was deleted from the picture and case history (appendix A). The KSD picture and case history was then presented to the experts and non-experts. They were shown the picture, one at a time in an individualized and private setting. Both the expert and non-expert was asked to analyze and interpret the information contained within the picture. Responses were audio taped, and permission to tape the analysis was secured in advance. The tapes were then set aside for a period of forty
eight hours or two working days. This allowed the research participants to have the opportunity to withdraw from the study before the tapes were used. After this time period, with the consent of the research participants, the tapes were then used and analyzed by the investigator.

**the Interview**

The experts were interviewed either by phone or in person, depending upon their geographic location. The interview schedule was set according to the convenience of the experts. All interviews occurred during the Ontario Institute for Studies in Education’s winter session of 1996. The interviews took place in one session. Each session lasted between sixty to ninety minutes.

The interview questions focus upon the projective aspects of the analysis and interpretation of the KSD (appendix B). The interview questions were developed by the principal investigator, and approved by Professor Rita Weinberg of the National Louis University, the second reader of this thesis committee. The questions reflect relevant clinical topics found within the literature concerning the projective drawing technique.

There are twenty one questions. All questions were presented in clear and meaningful language, that the research participants understood. They are open ended questions designed to elicit rich qualitative responses.

There was a pilot test of the interview. This served to identify any interview questions which were unclear or unnecessary. The pilot test also indicated the need for
additional questions to clarify certain issues. The pilot test also served to identify probes needed and enabled the principal investigator to develop a sequence that made sense and maintained participant interest. The pilot testing was also recorded after permission was obtained to do so.

Data Analysis

Method triangulation. The issue of how experts analyze and interpret the KSD was explored in two different ways. The first way was the actual observation of how experts and non-experts analyze and interpret a KSD picture. The second was the self reports of their interpretations during the interviews. The two were then viewed in context to each other, to determine whether the experts actually analyze a KSD as they say they do.

In addition to this, all interview data and KSD demonstration data was transcribed. These transcripts provide evidence that the interview answers were not misconstrued or taken out of context when they were analyzed.

The interview was designed to elicit rich and qualitative data. This data was then analyzed and viewed in comparison to the vast literature available on the projective drawing technique. Comparisons and similarities in the expert's answers were also charted and tabulated. There is also some non-identifying but descriptive information about the experience levels and clinical backgrounds of the experts.
Chapter Three

Results

KSD Analysis Demonstration

Demonstration Example: The experts and non-experts KSD analyses have been summarized in sketch form. These sketches are in first person, and highlight the typical issues which concerned both the expert and non-expert clinicians.

Expert sketch. I am particularly worried about the paucity of detail. This drawing is very atypical of a thirteen year old child, in the sense that the child is not seeing detail in those around him and in his environment. I worry that this lack of detail may indicate some serious learning issues. Also, look at what he has chosen to portray as his academic work. He has put on the black board the ABC's. This is completely inappropriate for a child his age. It is the most primary thing he could write. This is probably a message as to where the child is at academically. He has got this ABC so much in his head that the students are all writing the ABC's in their books. I would suspect that this kid has learning problems and that has impacted upon the way he drew this picture.

I also have concern for how he is coping with his situation. I feel that this picture is saying he is overwhelmed. Look at the position of the figures on the page. Look at the figures themselves, there is barely any detail to any of them. The lack of caring, the lack of hands, personal detail, backs of the students all say to me that this child is insecure, unhappy and
feeling quite impotent in this school situation. He seems to be
telling us that he feels crushed by his school work. Just look
at the size of the blackboard. It swamps them all. If it fell
over it would just kill him.

In conclusion, I am concerned about how he chose to portray
his typical school experience. There is a lack of any personal
involvement. He is disinterested and unable to be effective
within this environment. Perhaps he is learning disabled, I don't
know for certain but I do think that he is feeling ineffective and
powerless, and unsure of how to handle things. I am also not too
sure of how well he thinks things have been handled for him. I
noticed in the case history that there has been a recent death in
the family, and I wonder how that has been dealt with. I see him
as unhappy, avoidant, and not coping.

The clues in this picture need to be checked out further. I
would talk to the parents and do further assessing. I would be
interested in knowing whether or not this kid would draw his
Kinetic Family Drawing with as little detail, or whether he would
be more invested in those relationships. That would be very
telling.

*Non expert sketch.* Before I begin I just want to stress that
I usually analyze this picture in conjunction with my notes or
someone who I feel is an expert. I'm not sure of exactly what you
want but I'll tell you what I see.

I am concerned by the fact that this drawing is very
immature. There is a lack of detail and I notice that he drew
stick figures. I think it is strange that he chose to draw the ABC's. This may either be an indication of what he is capable of doing, or what he feels capable of handling. Despite the ABC's, he has portrayed himself sitting at a desk and involved in an academic activity. This could be a positive sign which indicates that he may perceive himself as more capable than how the drawing is done. He has also chosen to portray a buddy in the picture and this is another positive sign. This may indicate that he has a close friend in the class.

I think that he is not doing well in school. The ABC's and the fact that he has encapsulated the teacher indicate this. The teacher is encapsulated, but there is still a smile on her face. This may mean that teachers are viewed as a threatening authority figure. This teacher may not be as threatening because of her smile. Perhaps he chose to encapsulate the teacher and make her separate from the rest of the class because he feels that they are separate entities. He may not feel that he really belongs, and that is why he has separated himself and the teacher.

The boy drew the figures without arms, legs, and other details and this may be a reflection of anxiety, and low self esteem. The teacher and students all have instruments in their hands and according to the literature this may be a way to aid in controlling the environment.

The boy drew himself and the other student as being transparent. The desk can be seen through their bodies. According to the literature this may indicate that he is out of
touch with reality.

You also can't make too much out of anything. You really need to see this information in the context of the rest of the assessment data.

**Similarities and Differences of Non-Experts and Experts**

Both the experts and non-experts were able to come to the conclusion that the boy was having difficulty with his school work based upon the ABCDE's. The differences between their interpretations lay in exactly how they came to these conclusions.

The experts measured the lack of age appropriate detail and synthesized this data with the picture content, picture style, and mood of the picture. The picture provided them with an understanding of the boy's feelings, and they combined these intuitions with the picture data to create hypotheses about his academic functioning and coping style.

The non-experts also measured the lack of detail, and varying drawing characteristics found within the literature. However, these data were not synthesized with other picture data. They appeared unsure of how exactly how the literature's meaning of a picture element corresponded to the actual drawing. As a result their analyses were choppier, shorter and did not provide them with as much clinical data to build hunches upon. In addition to these differences, the non-experts were hesitant about performing this task and were not as comfortable as the experts. These differences and similarities will be expanded upon later.
INTERVIEW RESULTS

The results of the KSD demonstration and the interviews revealed that the experts look at similar picture elements when assessing a KSD (appendix C,D). Similarities in how they process KSD data were also seen.

The Experts' Analysis: KSD Picture Elements

Picture Content. Picture content refers to identifying the important picture variables such as (a) the people/person portrayed in the picture, (b) activities in which these people were engaged, (c) the portrayed relationships of and between these people, and (d) objects depicted. For example in our KSD demonstration the experts looked at number of peers portrayed (1), whether or not the teacher was present, and what each drawn figure was doing (academic work consisting of the ABC's).

In both the interviews and demonstration, picture content lent itself to further, more in-depth interpretations about the child's interpersonal relationships, attitudes, and self concept.

Interpersonal relationships, self concept, and child's attitudes. In order to understand these variables the experts examine (a) the postures of the drawn people, (b) the expressions on their faces, (c) their body language, (d) whether or not the drawn figures have substance, (e) whether or not the figures were grounded and had feet, (f) objects in the picture, (g) depicted location and depicted time, and (h) depicted activities.
Who was in the picture. This variable indicates who was important enough for the child to include or exclude.

How many people drawn and how they were depicted. This indicates how many people were included and how they were all drawn. Dr. Black pointed out that there is a big difference between thirty two heads and bodies sitting at desks, and six people depicted with painstaking attention. The detail is a measure of care and investment in the portrayed relationships.

Substance and size. Self concept can be indicated in the amount of substance portrayed in the drawn self. Children tend to spend time elaborating or enhancing human figures or picture elements which they find a source of pleasure or interest in real life. As a result, a drawn self with substantial detail indicates to the experts, that the child finds him/herself important.

Dr. Green talked about substance in relation to the drawn self. She compares the size of self to the size of the drawn peers. She notes who is largest in the picture, and whether or not the portrayed sizes match reality. She finds that children who draw themselves disproportionate in relation to their actual size, and size of their peers may be providing clues about their perceived academic stature.

Size determines the perceived value and stature of others in the picture. Overwhelming, large teachers may indicate exactly how the teacher is perceived by the student within the classroom setting.
Facial expressions, grounded figures, body language, postures of drawn figures. These elements provide data about how the child perceives the drawn figure. Facial expressions and body language can indicate how the child perceives the drawn self's behaviour, and even the typical behaviour associated with the drawn figure. For example, is the teacher happy and smiling or angry and scowling? Grounded figures are often associated with security and stability.

Activities. The activities that everyone (including the self) is engaged in are analyzed. Activities indicate which kinds of tasks the drawn figure is associated with, or in which they are often engaged. In addition, the inclusion or exclusion of the self in the activities, who is doing the activities and to whom the activities are directed, as well as the positive or negative connotation of the activities is investigated.

Dr.'s White, Black, and Green all point out that the activity of the self is extremely important. Inclusion or exclusion of peers can indicate social competence, and non-academic activities can indicate potential learning difficulties. Dr. Black and Dr. White find that children with academic and behaviour problems tend to draw themselves out of the classroom and engaged in non-academic behaviours.

If a kid draws himself in the school yard at recess, I feel this kid doesn't see himself as an academic. And usually these are the kids who aren't highly academic, who are struggling
academically. Weaker kids tend to draw themselves at recess more. (Dr. Green)

**Physical structures and objects.** Some children stress physical structures and objects in their pictures, instead of human beings and relationships. This can indicate difficulty with interpersonal relationships. Dr. Black and Dr. Green find some children draw the school building or an empty classroom when asked to draw a school picture. This can indicate problems with school relationships. In addition, children who draw a large overwhelming building and a tiny self, may be indicating exactly how overwhelmed they feel within school.

Dr. Black also points out, that a stress on objects and physical structures of the building can represent a child's strong need for structure and order. A child who emphasizes clocks and P.A. systems may be demonstrating his/her dependence on these devices to maintain harmony in his/her day.

All of the above mentioned picture data is viewed within context of what else is drawn, and the relationship of all these variables.

**Measurement of Detail**

**Detail.** Detail is one of the most used picture elements by the three experts. Detail enables a clinician to measure a variety of picture elements. It provides data about intellect, interpersonal relationships, age appropriate drawing behaviour, self concept, and attitudes towards school.
The experts look at the quality of detail, quantity of detail, and appropriateness of detail. Then they synthesize this with the rest of the picture data.

The experts assume that detail represents the interest and knowledge the child has about what he/she is drawing. Classrooms and people who are a source of warmth and interest for the child are often depicted with what Dr. Black refers to as "loving detail". Dr. Green agrees and finds that the amount of detail associated with the drawn self is a good indication of the child's feelings of self worth. Conversely, sparse detail, as in our sample KSD picture, would indicate lack of interest and maybe even a lack of basic knowledge.

How much detail is appropriate and when has the child gone overboard? Healthy detail was described as providing the picture with loving care, while an over abundance of detail indicates problems. Sometimes extreme detail can signify obsessive compulsive qualities, as in "the child who is so compulsive that they've got to put in every blasted plant that the teacher's got in the window sill, and every house you can see out the window of the school and so on." (Dr. Black)

Detail can alert the expert to potential problems when it is either too sparse or excessive. When detail becomes so excessive that it replaces the depiction of humans, or when it is so sparse that it hides all the child's feelings and abilities further investigation is warranted.
Despite the fact that these expert clinicians make detail an integral part of their analyses, they also stress that it cannot be the main focus of their picture interpretation. The smaller components of picture analysis need to be viewed in relation to the global impact derived from the drawing.

**Style of Picture: Detail and Global View**

As seen from appendix C, how the picture is drawn or "style" is another important picture element for the experts. Picture style refers to a whole host of picture elements like (a) mood of the picture, (b) organization of the picture, (c) quality of lines, pressure on the pencil, (d) and how the space was used. Take for example our KSD sample. The experts interpreted the mood and organization of the content as overwhelmed, sparse, and rudimentary.

How do the experts use these variables in their interpretations? The experts assume that the way the picture is organized, the mood conveyed and the quality of the picture can reveal the child's subjective feelings about the portrayed subject. For example an upbeat, well organized picture which contains details and lines of strong quality would most likely be representative of someone who enjoys school and feels confident in that setting.

**Mood.** The experts described mood as how the picture makes them feel. There are many possible moods which the child can portray. Mood can be orderly, upbeat, depressed, chaotic, organized, anxious, overwhelming, secure, and manageable, and many
Pencil pressure. Pencil pressure indicates the child's interest level and confidence. Dr. White described that light and broken lines can reflect a lack of commitment, or lack of confidence. Well defined lines reveal a healthy commitment towards school. At the other end of the spectrum, Dr. Black points out that heavy dark lines, often referred to as shading, can pinpoint feelings of anxiety and stress. This shading can either be location specific or a global picture trait.

Age Appropriate Drawing Behaviour

The three experts agreed that as children progress through the grades so should the amount of detail seen in their drawings. They expect older children to see more, show more insight, and draw with more realism and freedom. The quality and context of the picture should also contain more substance as older children are expected to be able to share more information about themselves, and have more to say.

A resistance to this sharing, sometimes seen in stick figures and in minimal detail (just like our KSD picture) was described as inappropriate for older children. The experts also pointed out that certain drawing items can be age inappropriate. For instance, Dr. Black points out certain bizarre qualities can be age inappropriate. Figures drawn complete with sex organs is inappropriate, as most kids entering kindergarten know that it is improper to draw naked people.
behaviour? Dr. Green points out that there is no such thing as inappropriate drawing behaviour. Drawing performance assessed as inappropriate for the child's age is looked at in terms of its suitability for emotional and intellectual capabilities.

I had a kid today, a very bright kid, in grade six, who drew his parents. They almost looked like hippopotamuses. And it's just not appropriate. There's something wrong with how he perceives them....this is not appropriate for his age level, but, obviously, it has to be appropriate for his emotional level, or his coping ability. It tells me something....I don't know if there is anything in a drawing that is inappropriate because what is inappropriate is offering information. (Dr. Green)

How the Experts Analyze a KSD: Process of Interpretation

The experts stressed that the KSD must be used in conjunction with a whole series of other assessment and interview procedures, as well as observational data. On its own, the KSD cannot provide enough supporting evidence about the child. Dr. Green compared the process of assessing a child to a table. A table needs four legs to support itself. The projective drawing information is only one leg of that table. With this perspective in mind, each of the three experts examine the picture within the context of all available data on the child.

Firstly, the experts clarify the picture content. This can be accomplished by chatting with the child about what he/she has drawn. Dr. Green described that she needs to understand the picture from the child's perspective. This includes defining what has been drawn, and understanding why it was drawn.

So there's nothing the kid puts on the picture that I don't
ask what it is. Any line. I don't assume I know that if there's a squiggly line on top that it's the ceiling......So I'm not interpreting stuff from my perspective, I want to know what they thought they drew....I ask alot of question, I don't assume anything, and I don't think that invalidates anything....And it's when they've given me the explanation, and I'm sure of what they drew and I'm sure of why they drew it, then I can interpret it. I can't interpret it otherwise. (Dr. Green).

Dr. Black has developed a standard group of projective school questions (appendix F). She has found that the child's answers combined with the KSD data yields a strong impression of the child's academic experiences. In addition the experts share their KSD hunches and hypotheses with the child. The ensuing dialogue provides the clinician with data necessary to either consolidate or alter hunches.

Talking to the parents and teachers is also integral. Dr. White pointed out that KSD data should be double checked with the child's significant others. "But it has to be checked out with parents, sometimes when you're meeting with parents you hear things that you didn't know before, and you've made assumptions that need to be revised. (Dr. White)" In this sense the KSD is not used as a tool unto itself, but rather a springboard for further dialogue and discussion with parents, teachers and the child.

Data from the KSD is examined within the context of how the child performed on the KFD, the H-T-P, Bender and intelligence testing and interviews. The experts look for themes or patterns of testing performance and behaviours from the entire profile. These themes, are reinforced by the information in the KSD.
Sometimes they provide clues for conflicting and strange drawing behaviour.

Dr. Green integrates these strange drawing behaviours from the KSD with the student's high and low scores on the BENDER AND WISC. Let's say I assess a kid, and visually he can't get it together, I mean significantly. If his drawing is visually distorted, then I'd say to him "okay tell me what you wanted to draw." To see if his distortions are also in him telling it to me.

Like he might say "well I tried to do it but it wasn't good." Like you know kids with spatial problems. If a kid shows me a foreign spatial and his drawing doesn't make any sense, or his drawing is really weird. I can't say this kid is emotionally messed up. I have to say "spatially this kid is so off." So I take the strengths and weaknesses from the WISC, I look at the Bender in terms of perspective, I look at the achievement scores in terms of attitude, everything gets integrated....When I do a summary on the kid, I check and cross check everything on the kid.

So there's aptitude, achievement, visual perceptual, and projective....It's the low scores that are gonna give me most of my information. Sometimes picture data can be conflicting with the rest of the profile, or the specific KSD elements don't fit the context of the rest of the picture. When this occurs analysis can become impeded, and the risk of misinterpretation is high.

The experts check the veracity or meaning of such data by investigating whether or not the drawing behaviour is a fluke, or indicative of underlying trouble. Integrating conflicting data
with the rest of the child's profile, and seeing if it makes sense enables the clinician to determine its saliency and meaning. Sometimes, they determine that the specific item should be considered within their analysis, and sometimes they find it to be inconsequential and disregard it.

In the context to all the information, be very careful. Because if you have a child who appears as though they have an obsessive compulsive disorder, and from what the teachers tell you this child is doing the same thing over and over again, erasing and writing, erasing and writing. If you think that is so, but you don't see it when the child is doing the school drawing, then I would question that. I would tell myself something else is making the kid do that. I don't see any compulsive behaviour on the drawing. It would carry a lot of weight with me. If I see the kid is just drawing peacefully and is not showing those behaviours and it depends on what else they show me in the assessment, I would find that useful, because I would then have to go in search of what is causing that child to behave that way, maybe they feel they can't do the work. (Dr. White)

Dr. Black provided an example of how specifics can take on meaning or lack of meaning depending upon the context within the picture. She described a case of a child whose class picture involved a big clock. The stark emptiness of the room void of all other objects save for a clock was interpreted to infer the child's preoccupation with time and order. Compare this to a child who lovingly included a clock, plants, and various other classroom items. The context of the clock within the picture helps to render judgement about its meaning.

Clinical Understanding, and Personal Style

The expert clinicians demonstrated an ability to use picture clues in order to understand exactly how the child sees his/her world, and to understand what the child feels about his/her
predicament. In our sample KSD they diagnosed the extent of the child's feelings of academic impotence through a variety of factors like the futility in the ABC's. They understood just how lost the child must feel within the school. They used the mood, content, lack of details and even style to obtain this information.

Dr. White and Dr. Black described how important it is to understand things from the child's perspective. They assume that it is their primary responsibility to put themselves in the child's shoes and see the world through the child's eyes. Dr. Black offered some concrete strategies which she uses when analyzing a KSD picture. These strategies help her obtain insight into the child's feelings and perception of his/her academic world.

She recommends asking yourself, "how would I need to be feeling in order to draw a picture like this?" She advises clinicians to assume the position, posture, and stance of the drawn self. Assuming the same stance as the child enables the clinician to understand how confident, or dejected a child feels.

Another way that Dr Black identifies with the child is by viewing the page the picture was drawn upon as the life space of the child. How did the child relate to all of the available space to draw upon? Did he/she remain concentrated in one tiny area or did he/she expand and conquer the whole page? Was the page viewed as a great big canvas to enjoy and fill up, or was it an overwhelming and daunting space?
Each of the experts described and demonstrated a form of clinical intuition which affects and enhances their analyses. They find that "something in the picture speaks" to them, and that they know which picture data is salient by "taking clues from the picture". This clinical intuition is humorously described by Dr. Black when she relates how her colleagues refer to her as someone who rides a broom stick. They think that she has a magic ability to pick up on things in the picture. What these colleagues see as magic is really intuition.

The above data is a summary of the picture elements and processes which were similar to the experts. However the above descriptions do not do justice to the fact that each of the clinicians use these strategies in a unique and personal way. These variations can be attributed to their style and comfort with the tool. The way each of these experts use the KSD has been shaped by their different professional roles and personalities. Personal style has evolved and continues to evolve based upon the kinds of training and experiences that these clinicians have had with the tool.

There appeared to be a general comfort level which the experts enjoyed when assessing the KSD. Their comfort with the KSD and their mastery of its literature means that they do not use any of the KSD scoring procedures previously described in chapter one. Instead they combine this knowledge of the PDT with their sharp clinical observations and intuition.
They described enjoying the assessment of pictures and find that things in the picture fit and make sense to them. The pictures often provide their assessments with rich clinical data about the child's academic world.

**Non-Expert Analyses**

In comparison to the experts the non experts lacked the same skill and comfort level. They were apologetic about the content of their interpretations. They were uncertain of how the literature fit into the context of the picture. Take for example the clinician who worried about the encapsulation of the teacher. She knew from the literature that this was a drawing style associated with the need to distance oneself. However the smile on the teacher's face perplexed her. Why would the student feel the need to distance or encapsulate a figure that is smiling and obviously viewed as friendly and approachable?

The non-experts relied heavily upon what was in their notes, and the literature, and often said, "according to the literature this means...". They were often uncertain exactly how to analyze the data and would say things like "this may mean," or "it might indicate".

They appeared to have more difficulty than the experts in relating the picture clues to the boy. They did not obtain a feeling for the mood of the picture. They did not display the same intuition and understanding of picture clues as the experts did.
The content of their analyses were shorter, choppier and tended to be full of uncertainty. As a result the quality of the data which they found was not nearly as rich as the data derived by the experts.

In some instances, their interpretation of specific picture elements contradicted the expert's analyses. The experts and non-experts alike found the ABC's to be a warning signal about the boy's academic competence. However, one non-expert also thought that the ABC's may also indicate that the boy likes to read and attributed a positive connotation to the ABC's. In another example, a non-expert thought that the portrayal of two students was a positive sign concerning peer relationships. However, the sparse detail associated with the friend and self was not integrated into the interpretation. As a result, the friend was interpreted as a positive sign, when the experts noted the lack of substance associated with the friend as indicative of lack of interest in others.

Chapter Four
Discussion

Before reading the analysis of the results which discuss some of the inherent weaknesses in both practice and theory of the KSD, it is necessary to remind the reader of the strengths of the KSD.

The KSD is at present the only projective measure for the school setting. It potentially can provide the clinician with rich qualitative school data. When meeting with the teachers and parents, the clinician can effectively use the picture as an
interview aid. The discussion around the KSD can help bring both
the parents, and teachers to a new understanding of the child. A
KSD "picture is worth a thousand words" in helping parents to
visually see how a child perceives him/herself in the school
setting (Di Leo, 1983; Sarbaugh, 1982).

Children can be shy, or uncomfortable within the clinical
setting. Sometimes they do not speak the same language as the
clinician. The KSD, an easily administered tool, is not dependant
upon the child's ability to express him/herself verbally.
Instead, the child is asked to draw, an activity which most
children do naturally (Di Leo, 1983; Sarbaugh, 1982)

Children's verbal skills usually surpass their drawing
skills, yet their drawings often express more information (Di Leo,
1983). There is a difference in the quality of information which
can be inferred from a picture. A child can tell a clinician,
"hey, I don't like school, my teacher hates me." Or the child
could draw a classroom with dark shading, and an encapsulated,
overbearing, large teacher. The same teacher has a caption
reading "sit down you idiot," while the self stands on a desk
throwing spit balls. Both tell the same tale, yet the KSD
portrays the extent of the negative situation.

Validity, Reliability, Objectified Scoring Procedures Generally,
the experts agreed with each other in the KSD demonstration,
however there was some discrepancy. There were also notable
differences between the expert's and non-expert's analyses. Are
these discrepancies and differences significant enough to question
the use of the KSD?

It is necessary to restate the current status of the KSD within the literature. The KSD has some validity as demonstrated in the literature, however limited it may be. Andrews and Janzen (1988) created a Global Approach for KSD analysis. Their instrument demonstrated some degree of discriminant validity within the context of the dependant variables and associated variables (Andrews & Janzen, 1988). The instrument was able to differentiate between learning disabled students and non-learning disabled students, and reflect degrees of significance along a 3- to 4- point continuum (Andrews & Janzen, 1988).

Many of the picture characteristics in Andrews and Janzen's (1988) study which successfully discriminated between learning disabled and non-learning disabled students were corroborated by similar findings by Prout and Celmer (1984). Prout and Celmer (1984) found that certain drawing styles could significantly discriminate the low achieving students from the higher achieving students and predict achievement scores. Their studies showed that children with academic difficulties tended to draw (a) more strange representations, (b) dissimilar activities from peers and teachers, (c) problems in interactions with teachers, (d) self drawn outside of the school, (e) self engaged in undesirable behaviour, (f) less structure in their drawings, and (f) more indications of certain emotional problems.

It is important to point out that the experts in this study measure the above mentioned picture elements when they assess a
KSD picture. However, there are other picture elements which our experts look at that have not yet been examined from a psychometric stance. These picture elements include (a) the use of detail, (b) picture style, (c) picture style, (d) age appropriate drawing behaviour, (e) resistant drawing behaviours, and (f) need for structure seen in emphasis on objects.

Inter-rater reliability for the Global Analysis of the KSD (Andrews & Janzen, 1988) was established for the scoring criteria which were clearly defined, and for which the examiners were well trained. However the harder to define concepts like likeability, and self concept, did not achieve inter-rater reliability. This is quite interesting, as the same kind of results are often replicated in KFD inter-rater reliability studies. When the scoring procedures have been clearly defined, and the judges well trained, the KFD is able to achieve significant inter-rater reliability (Burns & Kaufman, 1970). The difficulty lies when these stipulations do not occur, which is generally the case within the clinical setting.

Further KSD validity studies proved inconclusive (Walton, 1983). One study by Schneider (1978) found that the test failed to demonstrate predictive validity, and that its use did not yield any significant predictions about school ratings which age and IQ on its own provided (Schneider, 1978). Aside from the preliminary reliability findings for Andrews and Janzen's (1988) instrument, there have not been attempts to assess the reliability of the KSD.
The KSD's authors write that the tool can provide insights into (a) the child's attitudes toward school; (b) academic self-perceptions; and (c) perception of his/her teachers, peers and their relationships. This study indicates that in practice the KSD is being used to measure much more. The experts described using KSD data to measure intelligence, emotional well being, and self concept. Studies which assess the KSD's ability to assess these constructs do not currently exist.

The literature review, provides some reasons for these psychometric weaknesses. They are (a) a lack of objectified scoring protocols, (b) difficulty in quantifying human characteristics like self esteem etc., and (c) the sensitive and subjective nature of these tools. In addition, advocates who use these tools often claim they are not "tests" and should not have to hold up to the regular scrutiny of a test.

Curious Discrepancy

"Projective techniques present a curious discrepancy between research and practice. When evaluated as psycho metric instruments the large majority make a poor showing, yet their popularity in clinical use continues unabated" (Anastasi, 1982 p.564). In other words tests like the KSD often fall short of demonstrating a certain type of validity and reliability but are still a very strong element in the clinician's assessment battery.

The results of this study demonstrated this curious discrepancy. Despite the statistical shortcomings of the KSD the experts continue to use it within their assessments. However,
this does not mean that they are not concerned with the tool's accountability. They have developed their own methods for assessing the tool's validity and reliability.

In order to determine the accuracy of their judgements they validate their KSD hypotheses each time they use it. They do this by double-checking data with other sources, and integrating KSD data with data from the rest of the profile.

I'm not ignoring the business of validity. I'm cross checking from one technique to another, and I'm checking with teachers and I'm checking with parents....so that to me is a kind of validity. (Dr. Black)

You see if I used it in a certain way, and I thought it wasn't giving me information then I guess I would say "hey, am I doing something wrong? or maybe this isn't what I want." But if I feel it's giving me information, and it's consistent with the other stuff, you just keep doing it. I guess that's how we evaluate our use of it. I always double check with the parents and the kid. I always say, "I'm gonna tell you now what I think I see, you tell me if I am right." I don't tell them exactly what I found and how I found it....I ask them to tell me if I'm on the right track. I guess that's how I validate what I'm thinking. (Dr. Green)

The clinicians also remain accountable by keeping abreast of how other experts are using the technique. This includes reading, in-services, and professional development. With the inception of the first human figure drawing, there has been an amassing of literature dealing with the interpretation and analysis of projective drawings. As previously described in the literature review, each author has built upon the work of the author who preceded him/her. The result being a compilation of qualitative, rich guidelines for the clinical setting. This clinical "lore" has developed credence over the years. Its credibility has been
established by the experts who have created it, and confirmed by those who use it. Those who use it (like our experts) find it's applicable, accurate and necessary.

We have clues, very definite clues as to what certain representations mean. Like clouds, trees, the child being bigger than the house, the child being bigger than the desk, bigger than the teacher. We have a set of criteria that other people use too. At our agency we have had experts that have come to teach us, and this is their specialty and these are the criteria that those who are very experienced in these tests use. So we use them too....this isn't entirely subjective. Looking through these criteria you can formulate some ideas, because they are based upon what an awful lot of people do and how an awful lot of people represent their world. They didn't come out of someone's head. They came out of clinical experience, as to what these things mean. (Dr. White)

I find that what I found with Burns and Kaufman in terms of things have proven itself to me to be valid. (Dr. Green)

This study points out that these experts are not ignoring accountability. They only define accountability in a more subjective and personal way. The only way to determine the accuracy of the expert clinicians' KSD judgements is by taking their word that they have found them to be clinically accurate. The only way to know that the tool is useful and accountable is because they say it is. We only know that certain picture variables are valid, because the experts say they have found them to be valid. From a numbers perspective KSD accountability has been arduous to prove. The question remains as to whether or not the vast expert testimony which accompanies this tool is satisfactory.

Significance of Differences Between Experts and Non-Experts

There is a tremendous gap between the literature and actual
practice in terms of addressing the needs of new and inexperienced clinicians. Firstly, there is a lack of adequate interpretation guidelines and criteria. Secondly, the only KSD analysis procedure (Andrews & Janzen, 1988) which demonstrated validity and some measure of reliability is recommended for those who already are familiar with KSD interpretation and does not address the multilevel framework involved in assessing projective drawing procedures (Andrews & Janzen, 1988).

Any of the guidelines found within the literature resemble a checklist approach. These checklist approaches have been criticized for oversimplifying KSD analysis. The experts in this study addressed a variety of issues involved with processing KSD picture data. These include integrating data, understanding the child's world, intuition, and determining the saliency of conflicting data. Checklist approaches can not adequately deal with these complex ingredients.

Using these scoring criteria creates the risk of misinterpretation. For example if a clinician were to use Andrews' and Janzen's (1988) Global Approach to scoring the KSD demonstration picture misinterpretation would surely occur. According to Andrews' and Janzen's (1988) scoring guidelines the picture would indicate depression, isolation, sexual concerns, and impulsivity. Many of these concerns were addressed by the experts, but the instrument would also mislead in the scoring of criteria "engaged in academic activity", and scoring "negative or positive or neutral association of activities and relationships".
Any clinician using the Global Scoring Procedure would have to conclude that the boy and his peers were sitting at their desks doing academic work. In this checklist that has a positive connotation. This is misleading because there is a feeling of impotence, futility, and even resignation involved in the academic task that this boy has chosen to portray. The experts and non-experts alike picked up on it, however this checklist approach would have missed it.

Sarbaugh (1982) condemns such scoring criteria by saying "If there is a scoring key, one may be enticed into believing that there is an absolute, a quantity, an entity." (Sarbaugh, 1982 p. 64)

This may be the case but KSD challengers like Sachs-Wise (1982) and Peterson (1982) feel badly for the inexperienced clinician expected to use the KSD in the absence of any scoring procedures. Many interns and graduate students in this position are likely to become anxious and uncertain about their interpretations (Peterson, 1982; Sachs Wise, 1982). Indeed we see that this was the case as the non-experts in this study tended to be anxious, apologetic, and less confident than the experts. The non-expert anxiety was so strong that the researcher was actually turned down by a number of non-experts whom were asked to be part of this study. They claimed that analyzing a KSD in a research setting would prove to be too anxiety provoking.

This leaves the non-expert in a quandary. According to the KSD experts we can not have an objectified scoring procedure
because it leads to misdiagnosis and misinterpretation. We see that the experts involved in this study had no formal protocol which they used or claim to use. On the other hand, it is not wise to advocate the "free style" approach for clinicians who do not have the extensive training, and experience with the tool.

Well the thing I keep telling other people that are beginning to work with drawings, or working with them is "what jumps out at you? what do you notice? When you look at the picture what are you seeing?" That can include size, it can include where the pencil and crayon marks the heaviest. Sometimes I even sort of squint at the picture because that will clarify where the dark spots are, and sometimes they do practically jump off the page saying this is where the detail was. I think I may have told you before, that there was a Tony Hileman murder mystery and someone asked this detective what he was looking for when he was sniffing around. And he said that "no, it's not the way it works. If I'm looking for something, I'm going to miss seeing some things that I didn't know were there." And that's kind of what I try to do, which is to take a look at the thing and see what's talking to me about this picture? (Dr. Black)

Such a statement attests to the ease and familiarity that Dr. Black has with the KSD. However it does not provide the new and inexperienced clinician with concrete clues. For the new and inexperienced clinician this can be like looking for a needle in a haystack.

Indeed, this was the case. The non-experts searched the KSD picture for elements they recognized. They did not use any of the variables found in this study to be associated with the process of interpretation. They did not integrate all the picture data and view specific elements of the picture within context of the entire picture. They did not have a strong intuition, and understanding of the picture. As a result they did not come to strong hypotheses about the picture.
In addition, the non-experts did not appear to have comfort with the tool. The experts in this study were so comfortable with the KSD, that they have been able to mould the tool and use it according to their own needs and preferences. Their unique strategies and personal style also played a role in how they processed KSD data and came to conclusions.

"I'm a gestalt person. You see I'm not a detail person, with anything a book, I know that about myself. What comes at me is the whole thing" is a self description by Dr. Green. Her personal style is evident in her KSD interpretations. For example

I go for the obvious, but I'm always looking for the mood of the picture. Whether it's chaotic, whether it's calm, whether it's guarded, whether it's immature. It just tends to flow and come together. I do not try to synthesize everything, if it doesn't fit, there's something wrong. (Dr. Green)

Hammer (1968) described two types of clinicians, those who are able to use the projective drawing procedure, and those who just can't. One non-expert mentioned something very interesting after the tape recorder was turned off. She said that she never felt comfortable with the visual component of the projective drawing procedure and finds that she prefers the more verbal procedures like sentence completion. Personal preferences in processing information plays a role in her comfort with the KSD.

The question remains as to whether anyone can use this tool. Is Hammer correct? Are there clinicians who really can't use it? Are Dr. Black's colleagues correct in assuming she has magical powers when it comes to assessing a KSD?
Personal style, and innate ability may play a role in the expert's skill level, but one cannot negate the factor of hard work and training. Initially each of the experts described themselves as someone who had innate abilities with this tool. However, with deeper questioning, it became apparent that their KSD expertise has developed over time and in relation to the time and energy invested in it. In the beginning of their KSD use, the experts had difficulty with their interpretations just like the non-experts.

They all cited the same types of KSD training as helpful in overcoming these difficulties. They read everything about the PDT. They obtained supervision from other experts, and received strong clinical training.

Despite what Hammer thinks, the experts in our study have demonstrated how crucial training, and professional development can be in developing expertise. Clinicians can work on acquiring competence with this tool. There may be varying degrees of competence, but with proper training and supervision clinicians should be able to learn how to effectively use this tool. There isn't any magic as Dr. Black's colleagues assume.

This is encouraging for anyone who wishes to increase their own competence, comfort and develop a personal style. It can be accomplished with practice, supervision, and lots of reading.

Summary

In this study a variety of factors involved in picture assessment were discussed. Some of the easily defined picture
elements used by our experts have shown some measure of validity. Other picture elements are valid if the reader is willing to accept the expert testimony which renders them so.

This study also demonstrated that there are many variables involved in the process of interpretation. These factors are more subjective and harder to define. These factors include what the clinician does to make sense of these picture elements, and avoid misinterpretation. Other variables, like personal style and training are inherent in the experts themselves. Many of these attributes can be attained through education.

There is also a lack of acceptable interpretation guidelines in the literature for the new and inexperienced clinician. In addition guidelines cannot help the new and inexperienced clinician develop personal style, innate ability, and competence.

There are many factors which impede KSD interpretation for the non-expert: (a) the current lack of well defined interpretation guidelines, (b) role of personal style, (c) role of unquantifiable strategies like understanding and intuition, (d) the interpretation pitfalls, (e) visual components, and (f) role of expertise. As it stands now, the tool does not meet the needs of the non-expert.

There are limitations inherent in this tool, and there is also a lack of research on this tool. However, the experts who use this tool do so because the data obtained from the KSD is invaluable.
Chapter Five
Conclusions

Study Limitations

A qualitative study about a qualitative procedure is bound from the start to have some unique study limitations. Interviewing research participants about a qualitative procedure like the KSD, and then analyzing the data from a human perspective leaves the study vulnerable to the complexity, variability and unpredictability which is inherent in all human behaviour. The human being is far from standardized, and as a result a study of this nature relies upon the researcher to try and control for the human element.

In this study, the subjective nature of interviewing and analyzing the data was controlled for in three distinct ways. The first method was to make the survey as straightforward as possible (see appendix B). The researcher tried to eliminate all forms of ambiguity within the interview questions. To do this a pilot interview was done with another expert. The pilot interview was then analyzed and discussed with the expert and necessary changes were made to eliminate any ambiguity or obscure questions.

The research participants were completely informed of the nature of this study. The questions and its purpose were clear to them, and did not involve the use of any deceptive practices. This served to enhance the participant's comfort level with questions directed about their KSD usage.
Misinterpretation of the survey answers was controlled for by providing transcriptions of the interview along with the data. The transcriptions provide the necessary corroborating evidence that the data analyzed in the results and discussions sections remains unaltered and was not misconstrued in the process of analysis.

The only portions of the interviews which were excluded from the transcriptions were off topic digressions, and personal information which would serve to identify or embarrass the research participants.

The method of controlling for the variability between how the experts self describe their KSD use, and their actual KSD usage was in the cross triangulation of their of their interview answers with their actual KSD analyses. Analysis of their interpretations and interview answers revealed that the experts analyzed the KSD as they reported they do.

Other limitations involve how people behave when their behaviour is under scrutiny. Perhaps the non-experts were more nervous analyzing the KSD knowing that a tape recorder was recording their interpretations. The experts by the same token may have embellished answers or their KSD analyses as a result of this study's emphasis on their expert status.

The interview answers from the experts revealed that discussing a non verbal skill (like KSD interpretation), can be difficult. The experts were required to give words to a process which at this point in their career feels like second nature to
them. As a result, some data may have been lost in a tendency to forget or have difficulty pulling together all the elements of the KSD usage being addressed.

Another important limitation concerned the issues of validity and reliability which were relevant to this inquiry. Ideally, the next step of the KSD demonstration might have been to look at both the experts' and non-experts' interpretations in relation to other data about the child. This would have provided more information about the validity of the clinical judgements made in reference to this study. In addition, this data would have been useful when addressing questions about the validity and subjective nature of the KSD. However, this was not undertaken, because an in-depth analysis of this sort was beyond the scope of this thesis.

**Recommendations**

At the present moment the KSD should only be used by clinicians who are competent to use it, and have skill comparable to the experts of this study. This study has indicated that there are many vital factors involved in deriving accurate and sound clinical judgements from the KSD. The clinician relies upon mastery of the PDT literature, personal style, innate ability, and the ability to understand, synthesize and use intuition. All of these skills cannot adequately be addressed by any checklist or scoring procedure. The instrument is too multi-faceted and its use too dynamic to be objectified. In fact the processes inherent in interpreting the KSD resist quantification and in the past, any attempts to do so have failed.
Given what's involved in assessing a picture, and the lack of acceptable interpretation guidelines, the non-experienced clinician is cautioned about using this tool independent of appropriate supervision. This study indicated that non-expert use of this instrument does not yield significant, rich, clinical data which would justify use by the non-experts. The use of this tool was also anxiety provoking and uncomfortable for the non-experts.

Use of this tool should only be undertaken by those who are aware of how to integrate and synthesize KSD data within the context of the child's profile. It should only be used by those with ability to use clinical intuition and those who have demonstrated an ability to understand the picture. Use of this procedure by someone who does not adequately possess these skills leaves the picture vulnerable to misinterpretation and the child to misidentification.

In short, what this thesis has shown is that checklists and scoring procedures cannot replace the value of acquired expertise and competence. In order to become proficient with this procedure clinicians must personally take measures which will increase their competence with this tool. These measures are not coming from the literature, and attempts to provide it are not sufficient.

Training and supervision is highly recommended. This thesis has shown that there are two different components of the experts KSD analyses. The first is picture elements (like picture content and picture style etc.). The second component contains the more
intricate processing of KSD picture data. Professional training should concentrate on both of these areas.

Clinicians should be encouraged to read and master the KSD and projective drawing literature. They also need to understand how these symbols are then used in picture assessment. Dr. Green described how she mastered the literature, "So I was reading the literature over and over, I was reading it thirty, fifty times a year."

Training also involves becoming proficient in processing KSD data. Clinicians need to learn to integrate data within in context of the entire profile and within context of the picture itself. Understanding and intuition and the role they play in developing hypotheses should also be taught.

Training should also foster the ability to use prudence when interpreting pictures. Clinicians need to view the picture holistically as well as examining specific details. They need to remember that details take on more meaning when there are others pointing in the same direction. And finally, they should always remember that the KSD is only one specimen of behaviour and it must be viewed in relation to everything else the child has done.

Each of the experts stressed that they received training and supervision from someone they felt had expertise in the area of projective drawing assessment. They consulted and shared many analyses with their mentor before feeling they could use the instrument independently. Their professional development still has not concluded and they continually seek guidance from experts
and keep abreast of any changes within the literature.

**KSD Validity and Reliability**

This study has shown that the KSD does not have many properties which are common to a "test". This is the main reason why it is not possible for just anyone to use it. There is no accompanying manual, scoring criteria, and there are also many weaknesses in terms of how it measures up to the standards required of a test.

Validity has been attributed to some drawing characteristics which can successfully discriminate between learning disabled and non-learning disabled children (Andrews and Janzen, 1988), but there are still drawing characteristics used by the experts for which validity data isn't available. In addition, the KSD is used by clinicians to assess many psychological states, and affectual constructs which it has not yet been proven to determine.

Reliability studies are also weak given that they do not reflect how the tool is actually used in every day practice.

These psycho-metric weaknesses do not deter these expert clinicians from using this tool. In fact they find their own validity and determine the accuracy of their clinical judgements in other ways. They claim the validity of this tool rests within the competent use of the expert clinician. We can only conclude that the tool yields accurate interpretations because many experts say that it does. We have to "buy in" to the clinical lore which has developed around this tool, if we are to believe that the picture elements are valid. While this proof is not statistical
in nature, one cannot negate the expert testimony so strongly associated with this tool. It must account for something. Statistical validity and reliability is weak for this tool.

Not one of these experts advocate the use of this procedure as one would use a test. It's data is not viewed on its own merit. It is only used in a dynamic manner. All KSD hypotheses are integrated with other kinds of observational, interview, and testing data. In addition the tool is used to further enhance dialogue with the child, parents and teachers. The KSD is used very much in the same way that a clinician would use a non-standardized interview.

Summary

In conclusion, this study shows that this tool is not intended for everyone; only those competent enough to derive clinically accurate hypotheses should use it. Clinicians who wish to use this tool must ensure that they can do so in a competent manner. Training and supervision are recommended. The majority of the validity and reliability evidence associated with this tool lies within the experts' testimony. This tool should only be used for the purposes of obtaining insights into the school perspective within context of everything else known about the child.
Appendix A

Background Information
- male, 13.5 years old
- mother made referral due to concern about her son's poor academic performance
- boy engaged in fighting, and misbehaviour
- described as inattentive in class.
- not experiencing behaviour problems at home
- Student is experiencing anxiety attacks which could be related to a recent death of a family member.
Appendix B

Survey

USAGE
1) Which other tests and procedures do you administer in conjunction with the KSD?
2) Is there anything unique about the way you use or administer the KSD?

SCORING PROCEDURES
3) Please describe the scoring procedure you use, even if it is your own personal system.
4) How do you integrate information from the scoring procedure with the rest of the data contained within the picture?
5) Do you use any formalized interview questions after the picture is completed? If yes tell me about them, what information do you hope to obtain from them?

PERSONAL STYLE AND ASSUMPTIONS
6) Please describe and explain your own personal interpretation style. For example, do you rely heavily upon symbolism, personality data etc.?
7) What personal assumptions do you have when analyzing the KSD? For example self represents self image etc.?
8) Do you have a particular theoretical basis which you use?
9) Please describe the process you use to generate and verify hypotheses about the picture.

PROJECTIVES
10) How do you organize the different personality variables within the picture?...wait then a) how about child's self efficacy b) academic self concept c) interpersonal relationships d) attitudes towards schools e) signs of emotional difficulties

11) Are there any other ways you assess a picture for personality and emotional content?
12) Which part of the projective assessment do you give more weight, the global, symbolism, quality of lines etc.?
13) When you interpret symbolism within the picture, how strictly do you adhere to the meaning of these signs and symbols found within the literature? What other factors might you consider at this point of your assessment?
14) How do you use the KSD to make differential diagnoses?

AGE DIFFERENCES
15) What adjustments do you make in your interpretations and evaluations of KSD pictures for children of different age levels?
16) What indicates to you appropriate and inappropriate drawing behaviour? How does this knowledge impact upon your assessment?
CONFIDENCE AND UNIQUE SKILL ABILITY

17) How do you integrate all the information available to you from the entire assessment with the data from the KSD, and do you correlate specific aspects of other within the KSD?

18) Can you briefly provide me with details about your clinical experience with this tool?

19) Hammer describes the ability to use the projective drawing procedure as a talent or knack. How have you come to develop your proficiency with this tool?

20) Can you describe how you started using this tool originally when it was new to you and how your interpretation style evolved into what it is today?
## Appendix C

<table>
<thead>
<tr>
<th>PICTURE VARIABLES</th>
<th>EXPERT 1</th>
<th>EXPERT 2</th>
<th>EXPERT 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GLOBAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taking clues from picture for most important element</td>
<td>x</td>
<td>x</td>
<td></td>
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<tr>
<td>Obtains insight into child’s life from feeling or mood of the picture</td>
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<td>x</td>
<td>x</td>
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<tr>
<td><strong>CONTENT</strong></td>
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<td>Activity self is engaged in</td>
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<td>Relationships in picture as portrayed by activity and physical position and facial expressions</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Who’s drawn in the picture</td>
<td></td>
<td>x</td>
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<tr>
<td>Details or lack of details</td>
<td></td>
<td>x</td>
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<tr>
<td>Postures of people</td>
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<tr>
<td><strong>STYLE</strong></td>
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<tr>
<td>Stress upon pencil</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Spatial arrangement of picture</td>
<td></td>
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<td>x</td>
</tr>
<tr>
<td>SYMBOLISM</td>
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<tr>
<td>Obvious signs and symbols that are salient to the child</td>
<td>x</td>
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<tr>
<td>How school is portrayed (building, school yard, and classroom)</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Details</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Colours</td>
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<td>x</td>
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<tr>
<td>AGE</td>
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<tr>
<td>Insight into context</td>
<td>x</td>
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<td></td>
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<tr>
<td>Progression of details for older children</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Stick figures show resistant behaviour</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Ability to share information in drawing task</td>
<td>x</td>
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</table>
Dr. Black's School Related Projective Questions

1) If you could get rid of one thing in school what would you get rid of?
2) Suppose you had to get rid of everything in school, but one thing what would it be?
3) How much trouble are you having in school?
4) What's the thing you do the best in school?
5) Which is the thing you like the best in school?
6) What's the best and worst about school?
7) What do you do outside of school for fun?
8) What would you like to be when you grow up?
REFERENCES


Walton, J. R. The Kinetic School Drawing may be a valid, culture free projective. Unpublished manuscript.