CHAPTER V

SUMMARY, CONCLUSIONS AND SUGGESTIONS

INTRODUCTION:

Children's drawings have long been used by psychologists, psychiatrists, physicians, and mental health clinicians to gather understanding in areas ranging from normal development and intelligence to identifying deviance in behavior and personality growth. School psychologists have at their disposal a number of instruments that involve graphic techniques produced by the child being evaluated. The most commonly used instruments include the Bender Gestalt Test (Bender), the Draw-A-Person (DAP) and the House-Tree-Person (HTP). The authors of these tests have discussed qualitative aspects related to psychopathology in human figure drawing.

The Kinetic Family Drawings (K.F.D.) is a relatively new instrument used to assess family relationships and dynamics. The K.F.D. has added the dimension of actions to the Draw-A-Family Test.

K.F.D. was used first by Burns and Kaufman (1970). They asked the children to draw the picture of their family in which each member of the family would be shown doing something.
The K.F.D. appears to measure one of children's primary environment and interaction with it. These drawings are analysed in terms of styles, actions and symbols.

Styles as described by Burns and Kaufman resemble the defense mechanism used by children. Styles are the manner in which the child makes the family drawing. These are compartmentalization, encapsulation, lining at the bottom, underlining individual figures, edging, lining at the top and folding compartmentalization. These seven styles form a feature of disturbed children drawings, where barriers exists between normal interaction.

Symbols are interpreted as representing the unconscious. KFD authors list such things as tree, house, bed, etc. as symbols which are projection of unconscious.

Action is the motion implied to the family member by the child in his drawing. The authors considered such actions as cooking, sleeping, reading etc. as actions used in drawing. These actions are grouped into work, play and nonwork-nonplay categories. Work actions involve cleaning, mopping etc. Play actions involves jumping rope, fishing and swimming etc. Nonwork-nonplay involve, eating, watching T.V. and reading newspapers etc.
The KFD authors generalized on the basis of clinical experiences that the styles, actions and symbols are presented and reflective of disturbed children. Whereas in normal drawing implies no barrier between family members. Although the collection of KFD had the Freudian basis to interpret in terms of symbols, actions and styles, but the score is personal and objective. The need for normative study is well-established.

The empirical results on KFD and also Burns and Kaufman (1970, 1972) have little evidence to age or sex differences contributing to styles and contents in K.F.D. Since K.F.D. has been used as a projective measure to study deviant behavior of disturbed children and the study of personality, the tool is valid measure in the field of clinical research. KFDs have also been used to study intellectual and aesthetic growth of children.

The study concluded by Sims (1979) on the elementary school children representing the normal population between the age 6 to 12 were compared with the emotionally and behaviorally problematic children reveal significant differences between the two population on the styles.

The study of Burns and Kaufman (1972) Sims (1979) gave an inspiration as well as insight to the investigator.
to study the K.F.D. at the elementary school level in relation to creative thinking ability, emotional characteristics and self-concept.

STATEMENT OF THE PROBLEM:

"A Comparison of Kinetic Family Drawings (K.F.D.) in relation to Creativity, Emotional Indications and Self-Concept of Gifted and Average Elementary School Children".

OBJECTIVES OF THE STUDY:

The present study entitled "A Comparison of Kinetic Family Drawings (K.F.D.) in relation to creativity, emotional indications and self-concept of gifted and average elementary school children" was based on Sims' study.

The major purpose of the study was to see if styles, actions and symbols used in K.F.D. of gifted and average children in Thailand were similar to the styles, actions and symbols identified by Sims; and Burns and Kaufman in their study. The study was carried out further with the following objectives:

To compare the styles, actions and symbols used in the K.F.D.s of gifted and average children.

To study if styles, actions and symbols shown in drawings differ between boys and girls of gifted and average group of children.
To see whether gifted and average children selected different actions for their father, mother and self in K.F.D.

To compare the gifted and average children on the variables of K.F.D., creativity, emotional characteristics and self-concept.

To study the strength and magnitude of the relationship between K.F.D. and creativity, KFD and emotional characteristics, and KFD and self-concept in case of gifted and average children.

To identify the underlying factor structure obtained with the help of factor analysis for the variables of K.F.D., creativity, emotional characteristics and self-concept.

HYPOTHESES:

On the basis of the empirical research evidence and the objectives of the study, the following hypotheses were drawn and tested.

Based on the major objective of the study, the first hypothesis was, that the styles, actions and symbols in K.F.D. of gifted and average children in the elementary schools in Thailand are similar to the styles, actions and symbols identified by Sims and Burns and Kaufman.

There exists significant differences between gifted and average children in their selection of styles, actions and symbols in the Kinetic Family Drawings (KFDs).
Significant differences exist between boys and girls of gifted and average children, in selection of styles, actions and symbols.

Significant differences exist between boys and girls of gifted and average children in their preference for actions and symbols selected for father, mother and themselves.

There exists significant differences between gifted and average children on the variables of Kinetic Family Drawings (K.F.D), creativity, emotional characteristics and self-concept.

There exists significant correlations between Kinetic Family Drawings (k.F.D) and creativity, between K.F.D. and emotional characteristics and between KFD and self-concept.

It is possible to identify some structures in the factors having constellation of the variables of Kinetic Family Drawings (K.F.D.), creativity, emotional characteristics and self-concept.

**PROCEDURE AND TECHNIQUES :**

**Design of the Study :**

The present investigation was descriptive, exploratory survey. This study is 'exploratory' in the sense that no previous literature and research of this type is available and it is descriptive because it surveys and explains the nature of the phenomena.
The subjects for this study were chosen from the elementary schools of Thailand representing all the five zones, namely Bangkok, Central, South, North and Southeast zones. In each zone there are three schools. The subjects were selected in the age range of 9-12 years representing grade III through grade V including roughly three classes in each school. In each class, there are two to four sections. In each class only one section was picked up randomly. In each section there are about 30 children. For sampling the design employed in the study was multi-stage random cluster technique of sampling involving 5x3x3x30 design, in which 1350 children were expected to be selected.

The study was carried out in two phases. In the first stage the gifted children were identified with the help of Raven's Coloured Progressive Matrices.

In the first phase, an initial sample of 1288 children (682 boys, 606 girls) chosen from five zones and 15 schools, were given the test of intelligence to identify gifted children. After the intelligence test was given those children falling in the range of "Intellectually" superior according to the manual or top 5% of the population were selected as gifted children.
Criterion to Select Average Children:

After selecting the gifted children (N = 127) from the remaining sample of 1161 on the basis of means and SD, those children who fell within the range of means ± 1 SD were selected as average group. The number was 130.

Tools employed for the Study:

1. Raven's Coloured Progressive Matrices (1956):

Raven's Coloured Progressive Matrices was used as a measure of intelligence. This test is considered to be a "culture fair" test. It is a non-verbal technique to measure intelligence. The Raven Coloured Progressive Matrices are specially designed to measure intelligence of young children.

2. Torrance Test of Creative Thinking (1965):

The Torrance Tests of Creative Thinking are among the most widely used batteries of tests to assess 'creativity' or 'creativity thinking'. It consists 7 items. But the investigator chose only 3 items. There are Product Improvement, Unusual uses of cardboard boxes and Just suppose.


The tests of originality consists of four coloured abstract line drawings, a projective type of test prepared.
locally. The responses to line drawings are scaled in terms
of statistical frequency of commonness of responses. The
test provides sufficient latitude for free expression in
response to the coloured drawings. These tests are scored
for originality, fluency and flexibility - all the three
components of creativity.


The emotional characteristics scale consists of 50
statement. It is a three point rating scale. The ratings
were to be obtained from teacher teaching the young children.
The test is in progress. The norms are in process.

5. Children's Self-Description Scale (1972):

This test has been used to measure the self-concept
of the subjects. It consists of 45 items, it has 26 positive
and 19 negative adjectives of everyday use. This list has
been found to be very useful for the children between the ages
10 to 15 years in the secondary school stage.

6. Kinetic Family Drawings (KFD.):

KFDs are drawings that children make to show their
family member. They are specifically asked to draw a picture
of family with each person doing something.
STATISTICAL TECHNIQUES USED:

In accordance with various objectives of the study different statistical techniques have to be employed to test various hypotheses. These techniques involved frequencies, means, standard deviations, t-ratios, Chi-squares, coefficient of correlations and factor analysis.

The major objective was to compare styles, actions and symbols in K.F.D. of gifted and average children with those of the Sims* study. This analysis was done with the help of frequencies and percentages and Chi-squares.

To compare gifted and average children on actions, symbols and styles used in K.F.D. and on the variables of creativity, emotional characteristics and self-concept, the t-ratios were employed. T-ratios were also worked out to study the sex differences on the variable of K.F.D., creativity, emotional characteristics and self-concept of gifted and average children.

Coefficient of correlations were worked out in order to study the relationship between K.F.D. and creativity, K.F.D. and emotional characteristics and K.F.D. and self-concept of gifted, and average children.

Factor analysis and rotation of factors was done to see the underlying factor structure of K.F.D., creativity, emotional characteristics and self-concept.
MAIN FINDINGS AND CONCLUSION OF THE RESULTS:

The major objective of the study was to compare styles, actions and symbols in K.F.D. of gifted and average children with actions and symbols of Sims' study.

Use of Styles:

Since the study was conducted on normal population, it was observed that no styles were used in K.F.D. of gifted and average children. This observation was in accordance with the assumption of Sims that styles are differences used by disturbed children.

Use of Actions:

Out of 69 actions used in 257 drawings produced by gifted and average children, it was found that 64 actions were common in the list of actions prepared by Sims.

Use of Symbols:

The analysis of the symbols revealed that gifted and average children used 141 symbols in the K.F.D. Out of 141 symbols, 100 symbols were common in the list of symbols prepared by Sims.

Thus the stated hypotheses related similarity and differences in actions and symbols in the K.F.D. of gifted
and average children and actions and symbols used in Sims' study was proved.

The second major objective in the analyses of the K.F.D. was to study the differences in selected styles, actions and symbols for father, mother and self in the drawings of gifted and average children.

It was observed that there were seven most frequently selected actions used in the drawings of gifted and average children. These actions arranged in descending order of frequencies and percentages are: standing (67 = 51.54%), going to school (25 = 19.23%), going to work (63 = 24.51%), cooking (61 = 23.73%), working (53 = 20.62%), shopping for food (48 = 18.67%) and cleaning the house (41 = 15.95%).

The Chi-squares revealed no significant differences between gifted and average children. Thus the hypothesis related to the differences between gifted and average children in selection of actions for father, mother and self was rejected.

Another objective in the analyses in the K.F.D. was to study within group sex differences in selected actions for father, mother and self in the K.F.D. of gifted and average children.
On the basis of most frequently selected actions as mentioned above, by gifted and average boys, by gifted and average girls very little differences of no statistical significance were observed. Hence the hypotheses regarding the significant inter-group within sex differences (individual differences) got almost no support.

Another major objective of the study was to see whether gifted and average children selected different actions for the father, mother and self in K.F.D.

A. Actions selected for father, mother and self by gifted children.

It was observed that most frequently selected actions for father were working (20), going to work (17), standing (16) and reading newspapers (12). The actions most frequently selected for mother were cooking (30), shopping for food (19), going to work (13) and cleaning the house (12). For themselves the predominant actions selected by gifted children were going to school (41), standing (32), studying (23) and cleaning the house (15).

B. Actions selected for father, mother and self by average children.

The most frequent actions selected for father were going to work (27), standing (20), working (16), and reading newspapers (11).
The actions selected for mother were cooking (31), standing (28), shopping for food (27), working (14) and cleaning the house (10).

Actions selected for themselves included going to school (25), standing (19), writing (19) and playing (12).

Thus the stated hypotheses that gifted and average children selected different actions for father, mother and self was partially accepted.

Another objective was to analysis the K.F.D. in work, play and nonwork-nonplay situation and to compare the gifted and average children. The hypotheses was that gifted and average children perceived differently their father, mother and self in work, play and nonwork-nonplay.

(i) Analysis of work, play and non-work-nonplay actions for father.

It was observed that actions selected by gifted and average girls for their father were going to work (29), working (23). In play situation, the largest frequency was in case of exercising (16). In case of nonwork-nonplay actions, gifted and average children have selected such actions as standing (36) and reading newspapers (23).

(ii) Actions selected for mother in work, play and nonwork-nonplay situation.

The results indicated that in work categories such
actions is cooking (61), shopping for food (46), were selected more by gifted boys and average girls than gifted girls and average boys.

The frequency of play actions for mother is very low both in case of gifted and average children.

In nonwork-nonplay categories, gifted and average girls have drawn their mother standing (49) more than gifted and average boys.

(iii) Actions selected for self in work, play, nonwork-nonplay.

In work categories, gifted and average girls draw themselves as cleaning house (18), studying (27) and going to school (66) more than gifted and average boys.

In play categories, playing (19) and playing football (17) was drawn more by boys than by girls in either group. Whereas flying kite (7) and jumping rope (8) were exclusive actions for boys and girls in either group.

In nonwork-nonplay categories standing (51), was preferred by gifted and average children whereas writing (21) seemed to be more popular with the average group.

Thus the stated hypotheses that gifted and average children perceived their father, mother and self differently in work, play and nonwork-nonplay situation was partially accepted.
In nutshell gifted children selected more actions for father, mother and self in work, play and nonworknonplay situation than the average children.

The Results of Descriptive Analyses:

The results of Kinetic Family Drawings (K.F.D.) : The selection and use of actions and symbols indicated that on an average the gifted children used 3-4 actions whereas the average group used 3 actions in K.F.D. The gifted group used more than 4 symbols and the average group used 3-4 symbols in the K.F.D.

The Results of Originality and Creativity:

The means on the variables of originality and the components of creativity in case of gifted and average children were higher than the means of average group.

The Results of Emotional Characteristics:

On the variables of emotional characteristics both the groups of gifted and average children were found to be free of emotional problem.

The self-concept of gifted and average children was also found above average.

Comparison between gifted and average children on the variables of Kinetic Family Drawings (K.F.D.), creativity, emotional characteristics and self-concept.
The t-ratios were employed to see the differences between gifted and average children on all the variables as under:

(i) The differences between boys and girls of gifted and average groups on all the variables.

(ii) The comparison between low-high groups on the bases of actions, symbols and creativity on all the variables.

When gifted and average children were compared on all the variables, it was found that significant differences existed on the variables of K.F.D. - actions and symbols at .05 and .01 respectively and some of the components of creativity that is: flexibility and originality at .05 and .01 respectively. No significant differences were found in case of emotional characteristics and self-concept.

Thus the hypotheses relating to significant differences between gifted and average children on the dimension of the K.F.D. was proved. The hypotheses related to significant differences on creativity was partially proved and the hypotheses pertaining to significant differences on emotional characteristics and self-concept was rejected.
Comparison between boys and girls taken from combined groups of gifted and average children on all the variables.

It was found that significant differences existed between the components of creativity, flexibility and originality at .01 and .05 level respectively. The differences on the dimensions of K.F.D., originality, emotional characteristics and self-concept were not significant. The hypotheses of significant differences between boys and girls on all the variables was proved only in case of flexibility and originality.

Comparison between low-high groups of K.F.D. (actions) on all the variables.

When the extreme groups on the basis of actions were compared, significant differences were found in case of actions and symbols at .01 level of significant. The significant differences were also observed in case of emotional instability at .01 level. In case of miscellaneous characteristics of emotions, the differences were significant at .05 level and for total emotional characteristics differences were significant at .01 level, thereby giving support to the hypotheses.

The hypotheses was rejected in case of dimensions of originality, components of creativity and self-concept as no significant different differences were observed on these variables.
When the extreme groups on the basis of symbols were compared on all the variables; significant differences were observed in case of actions and symbols and emotional instability at .01 level. The hypothesis of significant differences in case of dimensions of originality, component of creativity and other emotional characteristics and self-concept was not proved. It was retained only in case of emotional instability and actions.

The comparison between low-high groups of total creativity revealed significant differences on all the dimensions of originality, creativity, unsocialized aggressiveness and miscellaneous characteristics of emotions, thereby giving partial support to the hypothesis of significant differences between low-high groups of creativity. The hypothesis was not proved in case of K.F.D. (actions and symbols), some emotional characteristics and self-concept.

Results based on Coefficient of Correlations (Gifted Children):

K.F.D. (actions) had positive significant correlations with symbols and miscellaneous characteristics of emotions. K.F.D. (symbols) had positive significant correlation with social withdrawal and miscellaneous characteristics of emotions. The measure of originality namely; fluency, flexibility,
originality and total creativity as measured by test of originality were found to have positive significant correlations among themselves. The components of creativity namely; fluency, flexibility, originality and total creativity had positive significant relationship among themselves. Fluency and creativity also had correlation with self-concept. All the dimensions of components of emotional characteristics namely; social withdrawal, unsocialized aggressiveness, emotional instability, miscellaneous characteristics of emotions and total emotional characteristics had positive significant correlation among themselves.

The hypothesis of positive significant correlation between actions and symbols was proved whereas hypothesis pertaining positive significant correlation between K.F.D. and creativity, KFD and self-concept was not proved but it was accepted partially in case of the relationship between K.F.D. and emotional characteristics.

Results based on Coefficient Correlations (Average Children):

The K.F.D. actions and symbols had positive correlation between themselves. The dimensions of originality namely; fluency, flexibility, originality and total creativity as measured by originality test had positive significant correlation
among themselves and with the total creativity scores as well. The components of creativity namely, fluency, flexibility, originality and total creativity also had positive correlations among themselves. Whereas flexibility, the component of creativity also had negative significant relationship with unsocialized aggressiveness, miscellaneous characteristics of emotions and total emotional characteristics of emotion. All the dimensions of emotional characteristics had positive significant correlation among them. The variable of self-concept had negative relationship with the dimension of originality namely; fluency, flexibility, originality and total creativity as measured by tests of originality. In this group also the hypothesis of the positive significant relationship between K.F.D. - actions and symbols was proved. Whereas the hypotheses pertaining to the significant relationship between K.F.D. and creativity, K.F.D. and emotional characteristics and K.F.D. and self-concept did not get any support on the basis of coefficient correlation.

Results based on Factor Analysis:

On the basis of 16x16 inter-correlation matrix for the combined groups of gifted and average children (N = 257), four factors were extracted and rotated.
FACTOR I: was characterised by significant loadings on the dimensions of originality namely; fluency, flexibility, originality and total creativity, and fluency of the component of creativity and total creativity. This factor was identified as "the factor of creative thinking ability".

FACTOR II: Significant loadings were found on all dimension of emotional characteristics and the factor was identified as "factor of emotional characteristics".

FACTOR III: had significant loadings on originality test namely; flexibility, originality and total creativity and significant positive loadings on creativity namely; fluency, flexibility, originality and total creativity. This factor was named as factor of "creative thinking ability".

FACTOR IV: was identified as the factor of Kinetic Family Drawings (K.F.D.) as it had significant loadings on actions and symbols.

The main objective of this analyses was to see if the K.F.D. constellated with creativity, emotional characteristics and self-concept. But the factors identified have been exclusive and specific in nature. Therefore the hypothesis of common factor structure was not proved.
SUGGESTIONS FOR FURTHER RESEARCH:

This study attempted to compare Sims' KFD data for 1,026 drawings from a normal population of 6 to 12 year olds of three elementary schools.

The study of the K.F.D. of the gifted and average children is a new approach to the psychological and educational research in the country as no such research work has yet been done in Thailand. Certain studies are done in abroad.

In the present investigation quite a large sample was taken representing the gifted and average children and many variables were studied and too many varied techniques were applied to analyse the results and test various hypotheses. The problem undertaken by the investigator was delimited in nature due to the shortage of time, a few suggestion are laid here:

1. The variables of K.F.D., creativity, emotional characteristics and self-concept, which have studied already, such other variables which effect gifted and average children such as socio-economic status, personality, interest etc. could be studied which might reveal more factors responsible for children drawings.

2. Drawings that lack content and actions need to be examined closely for possible emotional problem, learning,
intellectual, and aesthetic growth. These drawings can be considered possibly representative of problematic children. Drawings may also be analysed with respect to the colours used which again are indicative of emotional behaviours.

3. The present study was confined to elementary schools only, one can take up a study at different levels such as, secondary school or college level as well.

The K.F.D. appears to be a useful instrument for therapists and evaluators. It is possible that its directions could be changed to gain better understanding of family relationships.