This study investigated the self-concept of 150 college preparatory students in grades 10, 11 and 12. The independent variables were gender, educational classification (grade level), residency status, involvement in extracurricular activities, family structure, and family concept. The dependent variable was the self-concept score obtained from the Personal Attribute Inventory-Self. Subjects completed a demographic data sheet, an activity involvement rating sheet, the Personal Attribute Inventory-Self, and the Personal Attribute Inventory-Family. Three significant main effects were found for residency status, involvement in extracurricular activities, and family structure. Two significant interactions were found between involvement in extracurricular activities and family structure and between family structure and family concept. The findings suggest: that students who lived at home with parents had stronger self-concepts than those with other living arrangements; that students highly involved in extracurricular activities had stronger self-concepts than all other subgroups except those from intact families with low involvement; that students from other family structures with intermediate and low involvement in extracurricular activities had the weakest self-concepts; and that students from intact family structures reporting both positive and negative family concepts had stronger self-concepts than those from other family structures, regardless of family concept. (Author/NB)
AN INVESTIGATION OF THE SELF-CONCEPT
OF COLLEGE PREPARATORY STUDENTS

being

A Thesis Presented to the Graduate Faculty
of the Fort Hays State University in
Partial Fulfillment of the Requirements for
the Degree of Master of Science

by

Joseph B. Hertel
B.S., St. Mary of the Plains College

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Acknowledgments

I would like to express my sincere appreciation to those who assisted and supported me through the duration of this project. I am most grateful to Dr. Bill Daley for his many hours of guidance, expertise, and patience. His professional brilliance, sense of humor, and comradery made a difficult project enjoyable because I perceived him not only as a mentor but also as a friend.

The completion of this thesis would not have been possible without the support of my family. Gratitude is due my children, Seri and Drew, for being patient with Dad, even though they have not yet discovered the time demands required for academic endeavors. Mostly, I thank them for being the relaxing diversion from the stress of the research project. A most indebted thanks goes to my lovely wife Cindy for her never-wavering confidence in my ability to complete this project. Without her subtle motivation and reassurance, along with keeping our family afloat and her willingness to postpone her own graduate work, this thesis project would never have become a reality.
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Abstract

The purpose of the researcher was to investigate the self-concept of college preparatory students. The independent variables were gender, educational classification (grade level), residency status, involvement in extracurricular activities, family structure, and family concept. The dependent variable was the self-concept score obtained from the Personal Attribute Inventory - Self. The following four instruments were used: a demographic data sheet constructed by the researcher, an activity involvement rating sheet constructed by the researcher, the Personal Attribute Inventory - Self, and the Personal Attribute Inventory - Family. The sample consisted of 150 randomly selected sophomores, juniors, and seniors from a college preparatory school in the Midwest. A status survey factorial design was employed with predetermined and post hoc groupings. Five composite null hypotheses were tested at the .05 level of significance, 4 using three-way analyses of variance and 1 using a two-way analysis of variance. Seventeen comparisons and 14 recurring comparisons were made. Of the 17 comparisons, 5 were statistically significant at the .05 level; of the 5 comparisons which were statistically significant, 3 were for main effects and 2 were for interactions.

The 3 significant main effects were residency status,
involvement in extracurricular activities, and family structure. The 2 significant interactions were between 1) involvement in extracurricular activities and family structure, and 2) family structure and family concept.

The results of the present study appeared to support the following generalizations:

1. Subjects who lived at home with parents had stronger self-concepts than those with other living arrangements.
2. Subjects highly involved in extracurricular activities had stronger self-concepts than all other subgroups except those from intact families with low involvement.
3. Subjects from other family structures with intermediate and low involvement in extracurricular activities had the weakest self-concepts of any subgroup.
4. Subjects from an intact family structure reporting both positive and negative family concepts had stronger self-concepts than those from other family structures, regardless of family concept.
Introduction

Definition

Much research attention has been given to the expansive arena of "self," namely with regard to self-concept and self-esteem. However, it appears that "self-perception research has addressed itself to substantive problems before the problems of definition, measurement, and interpretation have been resolved" (Shavelson, Hubner, Stanton, 1976, p. 410). Hence, the broad definitive interpretations of these two terms have caused much confusion throughout related literature, resulting in their frequently being used interchangeably. However, citing the more precise views on self-concept and self-esteem revealed that they were, in fact, two related but different entities.

Since the major emphasis of this study will concern only one of these conceptualizations of self, a distinction of some clarity between the two is necessary. It seems only appropriate at the outset to convey perhaps the simplest definitions of all. Taken directly from Webster's New Collegiate Dictionary, self-concept is "the mental image one has of oneself" (Woolf, 1979, p. 1040), whereas self-esteem is "a confidence and satisfaction in oneself" (Woolf, 1979, p. 1041). Progressing toward a more scholarly view of these constructs, leading researchers (Shavelson, Hubner, and Stanton, 1976; Beane, Lipka, and Ludewig, 1980) suggested
that self-concept was one's perception of oneself, perceptions that were formed through the experiences with one's environment and particularly with persons whom one perceived as "significant others." Both of these experiences were thought to influence the way one acted, acts which in turn influenced the way one perceived oneself.

On the other hand, the most prevalently accepted professional definition of self-esteem originated with Coopersmith (1981) who maintained that it was:

the evaluation a person makes, and customarily maintains of him or herself; that is, overall self-esteem is an expression of approval or disapproval indicating the extent to which a person believes him or herself to be competent, successful, significant, and worthy. Self-esteem is a personal judgment of worthiness expressed in the attitudes a person holds toward self. (pp. 1-2)

Perhaps the greatest clarity in distinguishing the two terms results when they are defined together, suggesting that self-esteem is but one dimension of the multi-dimensional self-concept. Silvernail (1985) proposed that "while our self-concept describes our perceptions, our self-esteem evaluates these perceptions" (p. 9). Finally, to prevent needless and confusing overlap, from here forward self-concept will be the sole focus of the present study.

Self-Concept
The self-concept was defined by Rogers (1951) as "an organized, fluid, but consistent conceptual pattern of perceptions of characteristics and relationships of the 'I' or the 'me,' together with values attached to these concepts" (p. 498). He also implied that the "most useful" construct in understanding the dynamics of personality and behavior was self-concept (Rogers, 1954). Making the same association was eclectic theorist Thorne (1961, cited in Patterson, 1986) when he postulated that "the core of personality is the self-concept. . . . The importance of the self-concept is that it operates as the functional core of being" (p. 485, 488).

A composite generalization of self-concept refers to the "description we hold of ourselves based on the roles we play and personal attributes we believe we possess" (Beane, Lipka, and Ludewig, 1980, p. 84). This personal "description" is influenced by environment, "significant others," and the subsequent actions of the self-perceiving individual. Ultimately, self-concept is not "what we know about ourselves(self) or how we feel about ourselves(self-esteem), it is what we think about ourselves" (Hamachek, 1978, p. 6). Accordingly, measurement of self-concept seems to be best described initially as "accurate or inaccurate" and subsequently as "positive(strong) or negative(weak)" (Silvernail, 1985).

Given the distinctions and definitions, related
literature in this area seems to be in agreement regarding certain critical features of self-concept, especially those pertinent to the methodological model of Shavelson (Shavelson, Hubner, and Stanton, 1976). One of these features is that self-concept is organized or structured. This is reflected when an individual categorically organizes personal experiences to give them meaning. For example, a child's experiences may revolve around his or her friends, family, and school. A second feature of self-concept is that it is multi-faceted, pertaining to a different category system which includes body self, social self, and cognitive self.

Another feature of self-concept is that it is hierarchical. Certain descriptions create the core of our self-concept, meaning they are closer to the essence of our general self, which constitutes the apex of the hierarchy. Still another distinct feature of self-concept is that it is evaluative. Individuals not only develop a description of self, they also formulate evaluations of this description (Shavelson, Hubner, and Stanton, 1976). This feature is, in fact, what constitutes the entity of self-esteem.

Furthermore, self-concept is developmental in nature. At infancy an individual cannot differentiate himself from his environment. Shavelson, Hubner, and Stanton (1976) suggested that "the self-concepts of children are global, undifferentiated, and situation-specific" (p. 414). As
maturity, learning, and experiences occur, differentiation of self begins. With additional age and experience, further differentiation of self-concept takes place as parts of the self and parts of that person's world assume a changing significance (Shavelson, Hubner, and Stanton, 1976).

The final important feature of global self-concept is that it is stable. Research indicates that one's core perceptions develop early in life and are altered very little over the course of time. However, stability of self-concept is reduced as one descends the self-concept hierarchy, moving away from core images (Shavelson, Hubner, and Stanton, 1976).

As previously noted, self-concept is organized, developmental, and generally stable. The more common organizational categories influencing self-concept, which are developed with age and experience and perhaps most unstable during adolescence, are family and school. Adolescence is possibly the most volatile developmental stage in a person's life. Changes in self-concept, if they occur, usually take place during the adolescent years (Kissiar and Hagedorn, 1979). The most universal changes during adolescence include physical development; relationships with significant others, namely family members and friends; developing cognitive abilities (tendency toward more abstract thinking); and the transition from a
protective elementary school/family environment to the more complex world of secondary school/friends (Blyth and Traeger, 1983). Besides an adolescent’s sequential personal changes in physical development (sex, age, classification, etc.), the more common influences on adolescent self-concept are family and school, with friends intertwined.

The influence that one’s family has on that person’s self-concept has been widely researched. Regarding the development of self-concept, Hamachek (1978) maintained that "probably no relationship is more powerful or impactful than that which exists between parent and child" (p. 144). To carry the importance of the parent/child relationship further, Kissiar and Hagedorn (1979) stated that "parental attitudes are probably the most significant influence in the establishment of the preschooler’s self-concept" (p. 21).

Numerous researchers (Kissiar and Hagedorn, 1979; Hamachek, 1978; Stenner and Katzenmeyer, 1976), have concluded that how a child ends up is determined to a great extent by how he starts out, and the beginning point is always with the parents. Kissiar and Hagedorn (1979) further maintained that if parents are over-protecting, domineering, or verbally negative, a negative self-concept usually results for the child who then tends to be shy, submissive, or anxious. On the contrary, if the home environment created by the parents is secure, cooperative, and demonstrates self-worth and respect, the child’s self-concept is
positive, emotionally strong, happy, and extrovertive in nature.

In turn, a positive self-concept at this age usually determines the success with which the child later negotiates the turmoil of adolescence (Stenner and Katzenmeyer, 1976). Perhaps the single largest factor affecting adolescent self-concept regarding family is the communication barrier that commonly exists between the generations. Poor communication between parent(s) and adolescent occurs often, even when positive self-concept has been attained during childhood. Usually, the reason for this is that during adolescence, it is universally common for individuals to acquire a variety of new "significant others" in their lives, thus overshadowing the parents (Blyth and Traeger, 1983). However, generational conflict need not be negative, as Woefel's (1971) research indicated. Woefel (cited in Kissiar and Hagedorn, 1979) found that "expectations, not hopes, of significant others (namely parents) was the single most important factor which influenced teenagers" (p. 36) in their attitudes, expectations, achievements, and job choices. Ultimately, different aspects of family that may influence the development of self-concept include family structure, family concept, birth order, attitude toward family life, age, and gender.

Besides the effect that family has on self-concept, the other potentially dominating influence on adolescent self-
concept is the school environment, with peers/friends as the "significant others." "The child's concept of self crystallizes during the early school years, during which period a massive process of psychological and social maturation takes place. . . . A child can have no stronger ally than a strong and positive self-concept" (Stenner and Katzenmeyer, 1976, p. 356). Primary school children with positive self-concepts then evolve through the growth stages into adolescence at which time they tend to be confident in their abilities, compare themselves favorably with their "significant others" (friends and teachers), and reflect freedom from anxiety, nervousness, excessive worry, tiredness, and loneliness. The opposite is true of adolescents who, during the preschool years, developed a negative self-concept (Stenner and Katzenmeyer, 1976).

The relationship of school variables to adolescent self-concept has received attention by researchers in recent years. "In the hundreds of studies that have been done, a persistent relationship has been found between various aspects of self-perception and a wide variety of school-related variables" (Wylie, 1979, cited in Beane, Lipka, and Ludewig, 1980, p.85). However, few studies pertaining to self have been conducted that employ variables outside the arenas of personal or academic attitude and achievement, such as extracurricular activity participation and residency status.
In the next section of related literature, specific factors related to adolescents' personal, family, and school life were discussed. These included gender, educational classification, residency status, extracurricular activity involvement, family structure, and family concept.

**Gender**

Lynch, Norem-Hebeisen, and Gergen (1981) discovered that girls have poorer self-images than boys in adolescence. A much more recent study conducted by Kelly and Jordan (1990) offered support to this notion when they found that average-achieving girls (in academics) had significantly lower self-concept scores than did their boy counterparts. These findings were of grave concern to the researchers because they maintained that society had been steadily progressing toward dissolving sex-role stereotypes. However, this study suggested clearly that the dissolution of sex-role stereotypes over time was not as progressive as previously speculated.

Other researchers (as cited in Marsh, 1989), including Wylie (1979), Dusek and Flaherty (1981), and Piers (1984), have concluded that there were only small gender effects favoring boys for total self-concept, but that there appeared to be larger, counterbalancing sex differences in more specific facets of self which were generally consistent with sex stereotypes. For example, boys had higher self-concepts in masculinity and achievement/leadership than
Perhaps some rationale for lower self-concepts in girls comes from a recent study conducted by Beyer (1990) on self-perception biases. Self-perception biases suggest that the sexes have preconceived notions about achievement/success. She suggested that "girls learn from parents and society to underestimate their competence (i.e., to have low expectations for success), whereas boys receive the message that they should be highly confident" (p. 961).

Finally, in separate studies, Jackson (1985) and Yount (1986) concluded that for the most part, related literature regarding gender and self-concept tended to overemphasize the degree to which individuals assessed themselves in terms of sex-role criteria. In fact, these studies suggested that people in general were much less preoccupied with gender than were psychological researchers.

**Educational Classification (Grade Level)**

Age has commonly been employed as a variable in a multitude of self-concept studies. However, the trend in research with regard to adolescent self-concept is to identify the usual age variable as educational classification, or grade level. There seems to be much disparity in related literature concerning the relationship between grade level and self-concept. Simmons, Rosenberg, and Rosenberg (1973, cited in Chiam, 1987, p. 69) took a middle-of-the-road view when they maintained that:
early adolescents are more self-conscious and have a more unstable self-image, but these characteristics decline somewhat in later adolescence. . . . although older adolescents have higher global self-concept, their self-evaluations of specific qualities such as intelligence, honesty, diligence, and good behavior decline from childhood to later adolescence.

Taking the affirmative stance was Rubin (1978, cited in Hansford and Hattie, 1982) in a study of 9 to 15 year olds. He concluded that the relationship between self-concept and achievement definitely increased in strength across progressive grade levels. Agreeing with this view were Lynch, Noren-Hebeisen, and Gergen (1981) who noted that a more positive self-image occurred with increasing grade, more specifically that self-image was enhanced by the senior year relative to the freshman year. Bachman and O'Malley (1983, cited in Chian, 1987), in what is considered a very popular longitudinal study of self-concept, concurred when they affirmed that the self-concept of high school age adolescents, although unstable, undergoes considerable growth.

Some researchers have accumulated results that contradict the affirmative. One study proposed that adolescents' self-concept should improve according to progressive grade levels, and found that to be the case with high school boys. "With their maturity and greater
experience, the older boys are likely to have more and better social skills than the younger boys" (Chiam, 1987, p. 74). In a separate study, however, this same researcher found that this change in self-concept over time took an opposite direction when applied to girls. The proposed rationale for this finding was that "as girls grow older, they become increasingly aware of the discrepancy in status between girls and boys, and this awareness affects their self-perceptions adversely" (Chiam, 1976, cited in Chiam, 1987, p. 74). Finally, Osborne and LeGette (1982) succinctly concluded that "there were no significant differences in global self-concept when self-concept scores were compared by grade level" (p. 197).

Residency Status

In related literature very little attention, if any, has been given to the potential influence of adolescents' residency status in relation to self-concept. An obvious rationale for limited research on this construct is that there are few secondary level boarding schools from which to survey, and with the exception of boarding schools, there are few living arrangement alternatives available to adolescents other than living at home. Therefore, most adolescents reside with their parent(s). However, statistics show that in the United States there are many "parent-absent children." Parent-absent children are defined as those individuals under 18 years of age not
living with their parent(s). According to the U.S. Census Bureau, in 1980 3.7% (over 2 million) of all unmarried non-institutionalized children were living apart from their parent(s). The highest percentage of this group was living in the homes of relatives, usually grandparents. A lesser proportion of parent-absent children was living outside of families in group quarters, such as boarding schools (Montemayor and Leigh, 1982).

With regard to a possible relationship between adolescent residency status and self-concept, there is little related literature. However, there is an accumulated body of research comparing self-concept and the residency status of college students. Although there are obvious differences in the self development of adolescents to adults, perhaps a general inference could be made regarding these variables. In an unpublished study, Dougherty (1966) proposed that there were differences in self-concept between fraternity members and non-fraternity members, which would include subjects who resided at home or in the dormitory. The results of this study demonstrated that the obtained values were "so insignificant that they do not suggest any possible indication of self-concept differences" (p. 19). More recently, Pascarella (1985) longitudinally surveyed 9,448 students from 100 colleges proposing that self-concept would be different between on-campus resident students and day student commuters. Results indicated that residential
status was not significantly associated with either outcome on two measures of self-concept. He did however, conclude that residency status "was significantly and positively associated with measures of students' social involvement with peers and faculty" (p. 295). Galicki and McEwen (1989) concurred when they maintained that "living off campus, students have fewer opportunities to interact in peer groups" (p. 389). More specifically definitive research on adolescent living status is necessary before accurate conclusions can be drawn.

Extracurricular Activities

Involvement in extracurricular activities is but one school-related variable that seems to affect self-concept. The participation in these activities by adolescent students seems to vary in contrasting degrees, usually to the extent of success experiences (Holland and Andre, 1987). According to prior research, involvement in school-related activities and self-concept seem to be interrelated. Through an extracurricular physical training study for teenagers, Collingwood and Willett (1971) concluded that besides increases in physical fitness performance, subjects experienced significant increases in positive body attitude, positive self-attitude, and self-acceptance. Coleman (1961, cited in Holland and Andre, 1987) contended that during the teenage years, "standards of acceptance are established by peers, and that participation in peer-valued activities is
associated with greater peer approval and higher self-concept" (p. 439).

Leonardson (1986) also affirmed that there existed a significant correlation coefficient between extracurricular activity involvement and self-concept scores, more specifically suggesting that those actively participating in school activities tended to have a more positive self-concept. Phillips (1969, cited in Holland and Andre, 1987) performed a study regarding degree of participation in activities at a predominantly black high school. He found that for boys, across all activities, there resulted a significant positive relationship between high-degree participants and self-concept. No significant relationship was found for girls.

Simeroth (1987) countered Phillips' finding when she performed a study designed specifically for females only. Her results suggested that "female adolescents involved in extracurricular activities had higher positive self-concepts than did female adolescents not involved in school activities" (p. iv). Of the many studies that have been done concerning self-concept and school activity participation, there are few that do not suggest a significant positive relationship between these variables.

Family Structure

Within the related literature, the definitive nature of family structure has very little to do with a person's
siblings; instead, this construct reflects parental composition in the home. Whether this family structure is traditional (intact—both parents), single parent, or involves remarriage (reconstituted), its relationship to differing levels of self-concept of the child is well-documented. According to Byrne (1977, cited in Parish and Nunn, 1988), "the family represents a basic human system that fulfills psychological, social, and physical needs and exerts considerable influence on individual adjustment and self-concept" (p. 519). Following this premise, it could be generalized that an intact family structure (both parents in the home) consistently promotes a more positive child self-concept (Parish and Taylor, 1979, cited in Parish, J. and Parish, T., 1983).

Conversely, this is not the case with the history of single-parent family structures. First of all, diverse situations are possible that could result in a single-parent family structure. At present very little research has been done regarding unwed mothers and child self-concept. Widely researched, however, are the single-parent structures as a result of divorce or death. The fact that family disorganization, conflict, and subsequent divorce are so widespread in our society warrants extensive research (Kurdick, 1981).

Currently, many studies suggest that children of divorced parents have more negative self-concepts than
children from intact families. Parish, T. and Parish, J. (1983) found clear indications that the presence of two parents, rather than one, consistently fostered more-positive child self-concept scores. In a separate study by the same researchers in the same year, similar results were found where children of divorced families demonstrated significantly more-negative self-concepts than did children from intact families (Parish, J. and Parish, T., 1983). Also, Kelly and Wallerstein (1980, cited in Parish, J. and Parish, T., 1983) concluded that parental divorce generally has a negative impact on the self-concepts of children across the various ages.

With regard to single-parent structures as a result of death, Nunn and Parish (1982) concluded that children of intact families have more-positive self-concepts than do children of families where the father has died. They also found that the self-concepts of children whose fathers had died were significantly more positive than those children of divorced families.

Another possible family structure issue involves children of divorced-remarried (reconstituted) families. Parish, J. and Parish, T. (1983) found that children of reconstituted families exhibited somewhat more-negative self-concept scores than those from intact families, but somewhat more-positive self-concept scores than those from divorced families. While researchers like Landis and Nye
(1957, cited in Parish, Dostal, and Parish, 1981) contended that children from divorced settings had more-positive self-concepts than children from unhappy, intact families. Parish, Dostal, and Parish (1981) suggested that these results were inconclusive. In a study of their own, they found that intactness of family was just as important to self-concept as family happiness.

Family Concept

Family concept is simply how a person perceives his/her family, that is, happy or unhappy, unconflictful or conflictful (Parish, Dostal, and Parish, 1981). In relation to self-concept, family concept is closely related to family structure. In the 1983 study by Parish, J. and Parish, T., they maintained that "children's self-concepts were significantly associated with both their family structure and their family concept" (p. 657). Similarly, in a study of self-concept and family concept, Parish and Nunn (1988) stated that:

the views that students[subjects] held of themselves were linked to the views they held of their family. As the family came to be perceived as a positive entity, the students[subjects] came to value themselves as members of it, benefitting by this positive process. When the students[subjects] viewed their family as a negative entity, they tended to view themselves in a negative manner and saw themselves as having less
Related research associates family concept with the trends in the relationship between self-concept and family structure. Parish, T. and Parish, J. (1983) concluded that children from intact families had the more-positive family concepts, followed by children from reconstituted families, and finally, that children of divorced families viewed their families negatively. Brown (1980, cited in Parish, T. and Parish, J., 1983) concurred in stating that "the presence of two parents, be they natural or otherwise, may provide a more accessible home environment with which the child can more likely align than if he or she were from a one-parent family" (p. 294). Parish (1988) also found that girls from divorced families tended to hold a more negative view of their families than did boys. Finally, it can be concluded that family concept, family structure, and self-concept usually correspond in some fashion.

Statement of the Problem

The purpose of the researcher was to investigate gender, grade level, residency status, participation in extracurricular activities, family structure, family concept, and self-concept.

Importance of the Research

Past studies on self-concept are numerous because of the broad boundaries of this entity. More specific research is needed, however, in the distinct growth stages of an
individual regarding self-concept development. Particularly, future research in the self-concept of adolescents is necessary because this growth stage seems to be a time of instability. This exploratory study could provide useful information and possibly contribute to the knowledge of the field, since it was specifically directed at adolescent self-concept.

This research was also important because it contained variables not widely included. Commonly, the variables associated with adolescent self-concept are gender, grade level, academics, and family; however, this study generated important new information on the non-academic, non-family variables of residency status and involvement in extracurricular activities. Other researchers could benefit greatly from these newly acquired data to further study these relatively untouched variables.

This study could also be advantageous to all concerned with understanding the dynamics of adolescence. It has provided counselors, teachers, coaches, parents, administrators, and professional specialists with valuable data in order to deal effectively with high school students. Specifically, the results of the present study provided information pertaining to the following questions:

1) Is there an association between gender and self-concept?

2) Is there an association between grade level and
3) Is there an association between residency status and self-concept?

4) Is there an association between involvement in extracurricular activities and self-concept?

5) Is there an association between family structure and self-concept?

6) Is there an association between family concept and self-concept?

Composite Null Hypotheses

All hypotheses were tested at the .05 level of significance.

1) The differences among the mean Personal Attribute Inventory scores for college preparatory students according to residency status, involvement in extracurricular activities, and family structure will not be statistically detectable.

2) The differences among the mean Personal Attribute Inventory scores for college preparatory students according to residency status, involvement in extracurricular activities, and family concept will not be statistically detectable.

3) The differences among the mean Personal Attribute Inventory scores for college preparatory students according to residency status, family structure, and family concept will not be statistically detectable.
4) The differences among the mean Personal Attribute Inventory scores for college preparatory students according to involvement in extracurricular activities, family structure, and family concept will not be statistically detectable.

5) The differences among the mean Personal Attribute Inventory scores for college preparatory students according to gender and grade level will not be statistically detectable.

Definition of Variables

Independent Variables

The independent variables 1, 2, 3, and 5 came from information obtained from a demographic sheet given to all subjects (Appendix D).

1) Gender - Two levels:
   Level 1 - male, and
   Level 2 - female.

2) Educational Classification (Grade Level) - Three levels:
   Level 1 - sophomore,
   Level 2 - junior, and
   Level 3 - senior.

3) Residency Status - Two levels were determined post hoc.
   Level 1 - permanent [living at home with parent(s)], and
Level 2 - other (consisting of living in campus dormitory, with a volunteer foster family, with relatives, or by oneself free of adult supervision).

4) Involvement in Extracurricular Activities - Three levels were determined post hoc, and information was obtained from the Activity Involvement Rating Sheet given to all subjects (Appendix C). Possible scores were 0 - 48; actual scores were 0 - 24.

   Level 1 - high involvement (10 - 24),
   Level 2 - intermediate involvement (4 - 9), and
   Level 3 - low involvement (0 - 3).

5) Family Structure - Two levels were determined post hoc.

   Level 1 - intact (mother and father both in the home), and
   Level 2 - other [consisting of single parent (only mother or father in the home), or reconstituted (mother/father & stepfather/stepmother in home)].

6) Family Concept - Two levels were determined post hoc, and information was obtained from responses marked on the Personal Attribute Inventory-Family (Appendix B). Scores were the number of negative responses (0 - 30).

   Level 1 - positive (0 - 15), and
   Level 2 - negative (16 - 30).
Dependent Variable

1) The dependent variable was scores from the Personal Attribute Inventory-Self (Appendix A). Scores were the number of negative responses (0 - 30).

Limitations

The following may have affected the results of the study:

1) all subjects were taken from a single selected college preparatory school,
2) most subjects were taken from the same geographical area in the Midwest,
3) all data collected were self-reported,
4) the researcher did not have total control of the data collection procedure beyond the instruction sheet provided, and
5) the actual population was deliberately limited to exclude international students whose first language was not English.

Methodology

Setting

The setting for the present study was a private, parochial college preparatory school in a fairly remote north central Kansas town of approximately 15-20 thousand, where the general livelihood revolved around oil, farming, and a university. Enrollment at this high school was approximately 300 students in grades 9-12. Unique to this
school was that besides administering to the students from that particular area, it also provided a residency/boarding program for intrastate, interstate, and international students from all over the world. These boarding students accounted for approximately 30% of the total enrollment.

Subjects

The subjects for this study were college preparatory school students, grades 10-12. The subjects were selected randomly by corresponding a table of random numbers with the school's student identification numbers. A random sample without replacement technique was employed to prevent duplicates, and non-English speaking students were excluded because of the language barrier. The actual population by classification (grade level) was 68 seniors, 69 juniors, and 92 sophomores. The sample size by classification consisted of 50 sophomores, 50 juniors, and 50 seniors. Of the 150 total, 89 were male and 61 were female. The sample employed in this study was inventoried during the 1991-1992 school year.

Instruments

Four instruments were selected for use in this study. First, the Personal Attribute Inventory - Self (PAI) was selected as a measure of self-concept (Appendix A). With the focus changed to "family," this same instrument was also chosen to measure family concept (PAI-Family, Appendix B). Another instrument used was an Activity Involvement Rating
Sheet constructed by the researcher to measure the degree of participation in extracurricular activities (Appendix C). The fourth instrument was a Student Information Sheet employed to gather pertinent student demographics (Appendix D).

**Personal Attribute Inventory - Self.** The Personal Attribute Inventory - Self was used as a measure of self-concept. Developed by Dr. Thomas Parish, Kansas State University, the inventory contains 50 positive and 50 negative adjectives, listed in alphabetical order. Subjects were asked to select the 30 adjectives that best described themselves personally. The PAI-Self was scored by adding the total number of negative responses, thus 0 being very positive (strong) and 30 being very negative (weak (Parish, Bryant, and Shirazi, 1976)).

PAI test-retest reliability coefficients on three separate occasions were .90, .94, and .95. Also, the PAI's criterion-related validity with two different scales was .46 on one and .55 and .66 respectively on the other (Parish, Bryant, and Shirazi, 1976). Even though the PAI was derived from Gough's (1952, cited in Parish and Eads, 1977) Adjective Check List, a study conducted by Parish and Eads (1977) concluded that the test-retest correlation coefficient of the PAI was significantly higher than that of the Adjective Check List; these researchers also maintained that the ease of administering and scoring the PAI was one
of the most attractive assets of the instrument (Appendix A).

**Personal Attribute Inventory - Family.** The Personal Attribute Inventory - Family was employed as a measure of family concept. The PAI-Family was a facsimile of the PAI-Self except that the target group described was changed from "self" to" family.". Subjects were asked to mark 30 adjectives that best described their family. As with the PAI-Self, scores were determined by tallying only the negative responses. This action resulted in 0 being very positive and 30 being very negative [Parish, Bryant, and Shirazi, 1976 (Appendix B)].

**Activity Involvement Rating Sheet.** The Activity Involvement Rating Sheet was designed by the researcher to determine the subjects' degree of involvement in school-related extracurricular activities. A Lickert-type scale was employed, and all data were self-reported. The instrument measured participation in the following areas: athletics, academics, fine arts, and clubs. The scale allowed for four differing degrees of participation which included high involvement (3), average involvement (2), little involvement (1), or no involvement (0). Possible scores ranged from 0 - 48 (Appendix C).

**Student Information Sheet.** The Student Information Sheet was constructed by the researcher to collect necessary demographic data from the subjects in order to meet the
needs of the present study. The required demographics included gender, grade level, residency status, and family structure (Appendix D).

Design

A status survey factorial design with predetermined and post hoc groupings was employed. The design for each composite null hypothesis was as follows:

- Composite null hypothesis number 1, a 2x3x2 factorial design;
- Composite null hypothesis number 2, a 2x3x2 factorial design;
- Composite null hypothesis number 3, a 2x2x2 factorial design;
- Composite null hypothesis number 4, a 3x2x2 factorial design; and
- Composite null hypothesis number 5, a 2x3 factorial design.

McMillan and Schumacher (1989) cited 10 potential threats to internal validity. Discussion by the researcher concerning the 10 threats to internal validity and how they were dealt with in the present study was as follows:

1) history - did not pertain because the present study was status survey;
2) selection - subjects were randomly selected;
3) statistical regression - did not pertain because the present study did not exclude extreme subjects;
4) testing - did not pertain because the present study was status survey;
5) instrumentation - did not pertain because the present study was status survey;
6) mortality - did not pertain because the present study was status survey;
7) maturation - did not pertain because the present study was status survey;
8) diffusion of treatment - did not pertain because the present study was status survey;
9) experimenter bias - did not pertain to the present study because no treatment was implemented, data were collected in the same manner for all groups, and no value judgment was elicited on the part of the researcher; and
10) statistical conclusion - one statistical conclusion was violated, the assumption of equal numbers in cells. This violation was corrected by employing the general linear model, and the researcher did not make inferences beyond the statistical procedures employed.

McMillan and Schumacher (1989) cited 2 potential threats to external validity. Discussion by the researcher concerning the 2 threats to external validity and how they were dealt with in the present study was as follows:
1) population external validity - subjects were randomly selected; and
2) ecological external validity - no treatment was
implemented and data were collected under standard procedures and normal conditions.

Data Collection Procedures

The data were collected from a random sample of sophomores, juniors, and seniors at Thomas More Prep in Hays, Kansas. The researcher, an employee of this school, was verbally granted permission by the school’s president to administer the instruments to sample students during their English class. The researcher and English teacher colleagues administered the instruments to 150 subjects on the same day in May, 1992. Prior to marking the instruments, each group of subjects was read the same prepared set of standardized instructions to ensure consistency and to prevent confusion (Appendix F).

The order in which the four instruments were marked was 1st) PAI-Self, 2nd) Student Information Sheet, 3rd) Activity Involvement Rating Sheet, and last) PAI-Family. The reason for this particular arrangement was to prevent confusion between the two distinct target groups of "self" and "family" on the same PAI instrument. In order to preserve the confidentiality of the subjects participating in the study, the four instruments were not marked with any type of individual subject identification; instead, they were simply enumerated with corresponding numbers prior to being administered to the subjects. Administering teachers collected the completed instruments as the subjects finished
them and returned them to the researcher personally. All instruments were subsequently hand-scored by the researcher and prepared for analysis by mainframe computer, Fort Hays State University.

Research Procedures

In order to provide background and identify factors that needed further investigation, the researcher surveyed the literature pertaining to self-concept, gender, grade level, residency status, involvement in extracurricular activities, family structure, and family concept. Resources used to obtain related literature in these areas included Educational Resources Information Center (ERIC), Psychological Abstracts, and INFOTRAC Academics Index.

Instruments were then selected for the study. Via telephone and through a formal letter (Appendix E), permission to use the PAI instrument was obtained from Dr. Parish, Kansas State University. Permission to administer the instruments to the chosen subjects was subsequently acquired from the setting school’s president. A research proposal was then written and defended.

Prior to collecting data, a random sample of students was selected. Data were then collected by administering the instruments, which were subsequently hand-scored by the researcher. These data were then analyzed by the computing center at Fort Hays State University. The final research document was then compiled, defended, and subsequently
Data Analyses

The following were compiled:

1) appropriate descriptive statistics,
2) three-way analyses of variance (general linear model),
3) two-way analysis of variance (general linear model),
4) Bonferroni(Dunn) t-test for means, and
5) Duncan’s multiple range test for means.

Results

The purpose of the researcher was to investigate the self-concept of college preparatory students. The independent variables were gender, grade level, residency status, involvement in extracurricular activities, family structure, and family concept. The dependent variable was the self-concept score obtained from the Personal Attribute Inventory - Self. One hundred fifty randomly chosen subjects were inventoried in grades 10, 11, and 12.

The analyses of the data for the present study consisted of testing 5 composite null hypotheses at the .05 level of significance. The Results section was organized according to the previously established ordering of the composite null hypotheses. The same arrangement was employed for presenting the data pertaining to each composite null hypotheses for ease of comparison.
It was hypothesized in composite null hypothesis number 1 that the differences among the mean Personal Attribute Inventory scores for college preparatory students according to residency status, involvement in extracurricular activities, and family structure would not be statistically detectable. Table 1 contains information pertaining to composite null hypothesis number 1. The following were cited in Table 1: variables, sample sizes, means, standard deviations, F-values, and p-values.
Table 1
A Comparison of Mean Personal Attribute Inventory
Self-Concept Scores according to Residency Status,
Involvement in Extracurricular Activities, and
Family Structure Employing a Three-Way
Analysis of Variance

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M*</th>
<th>SD</th>
<th>F-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residency Status (A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanent</td>
<td>116</td>
<td>4.5a</td>
<td>4.63</td>
<td>7.65</td>
<td>.0065</td>
</tr>
<tr>
<td>Other</td>
<td>34</td>
<td>7.4b</td>
<td>6.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement in Extracurricular Activities (B)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>41</td>
<td>3.9e</td>
<td>4.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>71</td>
<td>6.0d</td>
<td>5.30</td>
<td>6.24</td>
<td>.0026</td>
</tr>
<tr>
<td>Low</td>
<td>38</td>
<td>5.0</td>
<td>5.49</td>
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</tr>
<tr>
<td>Family Structure (C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intact</td>
<td>116</td>
<td>4.5</td>
<td>4.56</td>
<td>1.29</td>
<td>.2577</td>
</tr>
<tr>
<td>Other</td>
<td>34</td>
<td>7.4</td>
<td>6.28</td>
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</tr>
<tr>
<td>Interactions</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>A x B</td>
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<td></td>
<td></td>
<td>1.50</td>
<td>.2262</td>
</tr>
<tr>
<td>A x C</td>
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<td>0.02</td>
<td>.8756</td>
</tr>
<tr>
<td>B x C</td>
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<td></td>
<td></td>
<td>3.54</td>
<td>.0316</td>
</tr>
<tr>
<td>A x B x C</td>
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<td>0.25</td>
<td>.7783</td>
</tr>
</tbody>
</table>

The possible self-concept scores varied from 0 - 30; the smaller the value, the stronger the self-concept difference statistically significant at the .05 level according to the Bonferroni (Dunn) t-test for means difference statistically significant at the .05 level according to Duncan's multiple range test for means.
Three of the 7 p-values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were rejected. Two of the significant comparisons were for main effects and 1 was for an interaction. The significant main effects were residency status and involvement in extracurricular activities. The information cited in Table 1 indicated the following for main effects: subjects with high extracurricular activity involvement reported statistically stronger self-concept scores than subjects with intermediate involvement, and subjects with permanent residency status reported statistically stronger self-concept scores than subjects with other residency.

The statistically significant interaction was between involvement in extracurricular activities and family structure. This interaction was depicted in a profile plot. Figure 1 contains mean self-concept scores and curves for family structure.
Figure 1

Interaction between Involvement in Extracurricular Activities and Family Structure

**Family Structure**

intact = __________

other = __________

**Involvement in Extracurricular Activities**

* the possible self-concept scores varied from 0 - 30; the smaller the value, the stronger the self-concept

**1 = high involvement, 2 = intermediate involvement, and 3 = low involvement.
The interaction between involvement in extracurricular activities and family structure was disordinal. The information cited in Figure 1 indicated the following: subjects from other family structures reporting high involvement in extracurricular activities had numerically stronger self-concept scores than subjects from intact families who reported high involvement, and subjects from intact families reporting intermediate and low involvement had numerically stronger self-concept scores than subjects from other family structures.

It was hypothesized in composite null hypothesis number 2 that the differences among the mean Personal Attribute Inventory scores for college preparatory students according to residency status, involvement in extracurricular activities, and family concept would not be statistically detectable. Table 2 contains information pertaining to composite null hypothesis number 2. The following were cited in Table 2: variables, sample sizes, means, standard deviations, $F$-values, and $p$-values.
Table 2
A Comparison of Mean Personal Attribute Inventory
Self-Concept Scores according to Residency Status,
Involvement in Extracurricular Activities, and
Family Concept Employing a Three-Way
Analysis of Variance

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M*</th>
<th>SD</th>
<th>F-value</th>
<th>p-value</th>
</tr>
</thead>
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<td><strong>Residency Status (A)</strong></td>
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<tr>
<td>Permanent</td>
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<td>4.5a</td>
<td>4.63</td>
<td>4.91</td>
<td>.0284</td>
</tr>
<tr>
<td>Other</td>
<td>34</td>
<td>7.4b</td>
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</tr>
<tr>
<td><strong>Involvement in Extracurricular Activities (B)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>41</td>
<td>3.9b</td>
<td>4.25</td>
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<tr>
<td>Intermediate</td>
<td>71</td>
<td>6.0g</td>
<td>5.30</td>
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</tr>
<tr>
<td>Low</td>
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<td>5.0g</td>
<td>5.49</td>
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<tr>
<td><strong>Family Concept (D)</strong></td>
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<td></td>
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<tr>
<td>Positive</td>
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<td>4.9</td>
<td>4.94</td>
<td>3.11</td>
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<td>Negative</td>
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<td>6.8</td>
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<td><strong>Interactions</strong></td>
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<td>A x B x D</td>
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<td>0.0743</td>
<td>.4258</td>
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</table>

* the possible self-concept scores varied from 0 - 30; the smaller the value, the stronger the self-concept
  difference statistically significant at the .05 level
  according to the Bonferroni (Dunn) t-test for means
  difference statistically significant at the .05 level
Two of the 7 p-values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were rejected. The significant comparisons were for the main effects residency status (recurring, Table 1) and involvement in extracurricular activities (recurring, Table 1). The information cited in Table 2 indicated no new associations between independent variables and the dependent variable.

It was hypothesized in composite null hypothesis number 3 that the differences among the mean Personal Attribute Inventory scores for college preparatory students according to residency status, family structure, and family concept would not be statistically detectable. Table 3 contains information pertaining to composite null hypothesis number 3. The following were cited in Table 3: variables, sample sizes, means, standard deviations, F-values, and p-values.
Table 3

A Comparison of Mean Personal Attribute Inventory Self-Concept Scores according to Residency Status, Family Structure, and Family Concept Employing a Three-Way Analysis of Variance

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M*</th>
<th>SD</th>
<th>F-value</th>
<th>p-value</th>
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<td>4.63</td>
<td>1.10</td>
<td>.2954</td>
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<td>Other</td>
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<td><strong>Family Structure (C)</strong></td>
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<td>Intact</td>
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<td>4.56</td>
<td>8.75</td>
<td>.0036</td>
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<td>6.28</td>
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<tr>
<td><strong>Family Concept (D)</strong></td>
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<tr>
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<td>6.8</td>
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<td><strong>Interactions</strong></td>
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<td>.2899</td>
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</table>

* the possible self-concept scores varied from 0 - 30; the smaller the value, the stronger the self-concept difference statistically significant at the .05 level according to the Bonferroni (Dunn) t-test for means
One of the 7 p-values was statistically significant at the .05 level; therefore, the null hypothesis for this comparison was rejected. The significant comparison was for the main effect family structure. The information cited in Table 3 indicated the following for this main effect: subjects from an intact family structure reported statistically stronger self-concept scores than subjects from other family structures.

It was hypothesized in composite null hypothesis number 4 that the differences among the mean Personal Attribute Inventory scores for college preparatory students according to involvement in extracurricular activities, family structure, and family concept would not be statistically detectable. Table 4 contains information pertaining to composite null hypothesis number 4. The following were cited in Table 4: variables, sample sizes, means, standard deviations, F-values, and p-values.
Table 4
A Comparison of Mean Personal Attribute Inventory Self-Concept Scores according to Involvement in Extracurricular Activities, Family Structure, and Family Concept Employing a Three-Way Analysis of Variance

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M*</th>
<th>SD</th>
<th>F-value</th>
<th>p-value</th>
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<tbody>
<tr>
<td><strong>Involvement in Extracurricular Activities (B)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>41</td>
<td>3.9\textsuperscript{h}</td>
<td>4.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>71</td>
<td>6.0\textsuperscript{g}</td>
<td>5.30</td>
<td>3.10</td>
<td>.0482</td>
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<tr>
<td>Low</td>
<td>38</td>
<td>5.0\textsuperscript{g}</td>
<td>5.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Family Structure (C)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intact</td>
<td>116</td>
<td>4.5\textsuperscript{b}</td>
<td>4.56</td>
<td>7.55</td>
<td>.0068</td>
</tr>
<tr>
<td>Other</td>
<td>34</td>
<td>7.4\textsuperscript{a}</td>
<td>6.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Family Concept (D)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>131</td>
<td>4.9</td>
<td>4.94</td>
<td>1.66</td>
<td>.2002</td>
</tr>
<tr>
<td>Negative</td>
<td>19</td>
<td>6.8</td>
<td>6.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B x C</td>
<td></td>
<td></td>
<td></td>
<td>3.19</td>
<td>.0441</td>
</tr>
<tr>
<td>B x D</td>
<td></td>
<td></td>
<td></td>
<td>0.08</td>
<td>.9212</td>
</tr>
<tr>
<td>C x D</td>
<td></td>
<td></td>
<td></td>
<td>4.02</td>
<td>.0469</td>
</tr>
<tr>
<td>B x C x D</td>
<td></td>
<td></td>
<td></td>
<td>0.95</td>
<td>.3878</td>
</tr>
</tbody>
</table>

* the possible self-concept scores varied from 0 - 30; the smaller the value, the stronger the self-concept difference statistically significant at the .05 level according to Bonferroni (Dunn) t-test for means. 

\textsuperscript{a,b}difference statistically significant at the .05 level.
Four of the 7 p-values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were rejected. Two of the significant comparisons were for main effects and 2 were for interactions. The significant main effects were involvement in extracurricular activities (recurring, Table 1) and family structure (recurring, Table 3). The information cited in Table 4 indicated no new associations between independent variables and the dependent variable.

One of the statistically significant interactions was between involvement in extracurricular activities and family structure (recurring, Figure 1), and the other was between family structure and family concept. The interaction between family structure and family concept was depicted in a profile plot. Figure 2 contains mean self-concept scores and curves for family structure.
Figure 2
Interaction between Family Structure and Family Concept

**Family Structure**

intact = _____________
other = _____________

**Mean Self-Concept Scores**

* the possible self-concept scores varied from 0 - 30; the smaller the value, the stronger the self-concept

**1 = positive family concept, and 2 = negative family concept**
The interaction between family structure and family concept was ordinal. The information cited in Figure 2 indicated the following: subjects from other family structures reporting a positive family concept had numerically stronger self-concept scores than subjects from other family structures reporting a negative family concept, and subjects from intact families reporting a positive family concept had numerically identical self-concept scores as did subjects from intact families reporting a negative family concept.

It was hypothesized in composite null hypothesis number 5 that the differences among the mean Personal Attribute Inventory scores for college preparatory students according to gender and grade level would not be statistically detectable. Table 5 contains information pertaining to composite null hypothesis number 5. The following were cited in Table 5: variables, sample sizes, means, standard deviations, F-values, and p-values.
Table 5
A Comparison of Mean Personal Attribute Inventory
Self-Concept Scores according to Gender and
Grade Level Employing a Two-Way
Analysis of Variance

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M*</th>
<th>SD</th>
<th>F-value</th>
<th>p-value</th>
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<tr>
<td>Gender (E)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>89</td>
<td>5.3</td>
<td>5.21</td>
<td>0.38</td>
<td>.5377</td>
</tr>
<tr>
<td>Female</td>
<td>61</td>
<td>5.0</td>
<td>5.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade Level (F)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>50</td>
<td>5.3</td>
<td>5.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>50</td>
<td>6.1</td>
<td>5.27</td>
<td>1.92</td>
<td>.1508</td>
</tr>
<tr>
<td>Senior</td>
<td>50</td>
<td>4.0</td>
<td>4.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E x F</td>
<td></td>
<td></td>
<td></td>
<td>0.39</td>
<td>.6808</td>
</tr>
</tbody>
</table>

* the possible self-concept scores varied from 0 - 30; the smaller the value, the stronger the self-concept
None of the 3 p-values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were retained. The information cited in Table 5 indicated no associations between the independent variables and the dependent variable.

Discussion

The purpose of the researcher was to investigate the self-concept of college preparatory students. The independent variables were gender, grade level, residency status, involvement in extracurricular activities, family structure, and family concept. The dependent variable was the self-concept score obtained from the Personal Attribute Inventory - Self. The following four instruments were used: a demographic data sheet constructed by the researcher, an activity involvement rating sheet constructed by the researcher, the Personal Attribute Inventory - Self, and the Personal Attribute Inventory - Family. The sample consisted of 150 randomly selected sophomores, juniors, and seniors from a college preparatory school in the Midwest. A status survey factorial design was employed with predetermined and post hoc groupings. Five composite null hypotheses were tested at the .05 level of significance; 4 using three-way analyses of variance and 1 using a two-way analysis of variance. Seventeen comparisons and 14 recurring comparisons were made. Of the 17 comparisons, 5 were statistically significant at the .05 level; of the 5
comparisons which were statistically significant, 3 were for main effects and 2 were for interactions.

The 3 significant main effects were residency status, involvement in extracurricular activities, and family structure. The 2 significant interactions were between 1) involvement in extracurricular activities and family structure and 2) family structure and family concept.

Results indicated that subjects who lived at home with parents had stronger self-concept scores than those with other living arrangements; subjects highly involved in extracurricular activities had stronger self-concept scores than all other subgroups except those from intact families with low involvement; subjects from other family structures with intermediate and low involvement had the weakest self-concept scores of any subgroup; and subjects from an intact family structure reporting both positive and negative family concepts had stronger self-concept scores than those from other family structures, regardless of family concept.

The findings of the present study were not consistent with previous findings concerning gender and residency status. Lynch, Norem-Hebeisen, and Gergen (1981), Kelly and Jordan (1990), and Marsh (1989) found self-concept was associated with gender; the results of the present study did not support these findings. Dougherty (1966), Pascarella (1985), and Galicki and McEwen (1989) found that the self-concept of college students was not associated with
residency status. But the results of the present study indicated that self-concept was stronger in subjects who lived at home with parents. It must be noted again that the subjects of the present study were college preparatory students.

Regarding grade level, Chiam (1987), Hansford and Hattie (1982), and Lynch, Norem-Hebeisen, and Gergen (1981) concluded that self-concept was associated with grade level. However, the results of the present study concurred with Osborne and LeGette (1982) who determined that there were no significant differences in self-concept over the different grade levels.

The results of the present study supported past findings pertaining to involvement in extracurricular activities and family structure. Collingwood and Willett (1971), Holland and Andre (1987), Leonardson (1986), and Simeroth (1987) found that high degree participants in activities had stronger self-concepts. With regard to family structure, leading researchers (Parish and Nunn, 1988; Parish, J. and Parish, T., 1983; Kurdick, 1981) concluded that stronger self-concepts existed in subjects from intact families; the same associations were found in the present study with the exception of highly involved subjects from other family structures.

Some disparity in results occurred between the present study and past research regarding family concept. Parish,
J. and Parish, T. (1983), Parish and Nunn (1988), and Parish, T. and Parish, J. (1983) found that self-concept scores paralleled family concept scores; the results of the present study indicated that subjects from an intact family structure reporting both positive and negative family concepts had stronger self-concepts than those from other family structures, regardless of family concept.

The results of the present study appeared to support the following generalizations:

1. Subjects who lived at home with parents had stronger self-concepts than those with other living arrangements.

2. Subjects highly involved in extracurricular activities had stronger self-concepts than all other subgroups except those from intact families with low involvement.

3. Subjects from other family structures with intermediate and low involvement in extracurricular activities had the weakest self-concepts of any subgroup.

4. Subjects from an intact family structure reporting both positive and negative family concepts had stronger self-concepts than those from other family structures, regardless of family concept.

Results of the present study appeared to support the following recommendations:

1. Research was collected from a single college preparatory school; therefore, the study should be replicated with subjects from more than one college preparatory
institution.

2. The study should be replicated in public secondary schools.

3. The study should be replicated with international students.

4. The study should be replicated using a larger sample.

5. The study should be replicated in other geographical areas.
References


Appendix A

Personal Attribute Inventory for Self
The Personal Attribute Inventory--Self

Read through the following list of adjectives and select exactly 30 words that describe YOU best. Mark your choices by placing the numbers 1-30 in the space next to the word. (numbers will not reflect an order of importance ranking)

- active
- affectionate
- alert
- appreciative
- awkward
- bitter
- calm
- careless
- cheerful
- clear-thinking
- complaining
- conceited
- confident
- confused
- conscientious
- cooperative
- cowardly
- cruel
- deceitful
- dependable
- despondent
- determined
- energetic
- fairminded
- fickle
- foolish
- foresighted
- forgetful
- gloomy
- good-natured
- greedy
- handsome
- hasty
- healthy
- helpful
- hostile
- humorous
- imaginative
- impatient
- industrious
- initiative
- intolerant
- inventive
- irresponsible
- irritable
- jolly
- kind
- mannerly
- masculine
- nagging
- natural
- obnoxious
- organized
- original
- patient
- pleasant
- poised
- prejudiced
- progressive
- quarrelsome
- queer
- quitting
- rational
- rattlebrained
- relaxed
- resentful
- resourceful
- rude
- self-centered
- self-confident
- self-controlled
- self-pitying
- selfish
- shallow
- shiftless
- show-off
- sincere
- slipshod
- snobbish
- spineless
- stable
- steady
- stingy
- strong
- sulky
- sympathetic
- tactful
- tactless
- thankless
- tolerant
- touchy
- trusting
- undependable
- understanding
- unfriendly
- unintelligent
- unkind
- warm
- weak
- whiny
Appendix B

Personal Attribute Inventory for Family
The Personal Attribute Inventory--Family

Read through the following list of adjectives and select **exactly 30 words** that describe **YOUR FAMILY**. Mark your choices by placing the numbers 1-30 in the space next to the word. (numbers will not reflect order of importance ranking)

<table>
<thead>
<tr>
<th>active</th>
<th>natural</th>
</tr>
</thead>
<tbody>
<tr>
<td>affectionate</td>
<td>obnoxious</td>
</tr>
<tr>
<td>alert</td>
<td>organized</td>
</tr>
<tr>
<td>appreciative</td>
<td>original</td>
</tr>
<tr>
<td>awkward</td>
<td>patient</td>
</tr>
<tr>
<td>bitter</td>
<td>pleasant</td>
</tr>
<tr>
<td>calm</td>
<td>poised</td>
</tr>
<tr>
<td>careless</td>
<td>prejudiced</td>
</tr>
<tr>
<td>cheerful</td>
<td>progressive</td>
</tr>
<tr>
<td>clear-thinking</td>
<td>quarrelsome</td>
</tr>
<tr>
<td>complaining</td>
<td>queer</td>
</tr>
<tr>
<td>conceited</td>
<td>quitting</td>
</tr>
<tr>
<td>confident</td>
<td>rational</td>
</tr>
<tr>
<td>confused</td>
<td>rattlesome</td>
</tr>
<tr>
<td>conscientious</td>
<td>relaxed</td>
</tr>
<tr>
<td>cooperative</td>
<td>resentful</td>
</tr>
<tr>
<td>cowardly</td>
<td>resourceful</td>
</tr>
<tr>
<td>cruel</td>
<td>rude</td>
</tr>
<tr>
<td>deceitful</td>
<td>self-centered</td>
</tr>
<tr>
<td>dependable</td>
<td>self-confident</td>
</tr>
<tr>
<td>despondent</td>
<td>self-controlled</td>
</tr>
<tr>
<td>determined</td>
<td>self-pitying</td>
</tr>
<tr>
<td>energetic</td>
<td>selfish</td>
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<td>fairminded</td>
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<td>shiftless</td>
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<tr>
<td>foolish</td>
<td>show-off</td>
</tr>
<tr>
<td>foresighted</td>
<td>sincere</td>
</tr>
<tr>
<td>forgetful</td>
<td>slipshod</td>
</tr>
<tr>
<td>gloomy</td>
<td>snobbish</td>
</tr>
<tr>
<td>good-natured</td>
<td>spineless</td>
</tr>
<tr>
<td>greedy</td>
<td>stable</td>
</tr>
<tr>
<td>handsome</td>
<td>steady</td>
</tr>
<tr>
<td>hasty</td>
<td>strong</td>
</tr>
<tr>
<td>healthy</td>
<td>sulky</td>
</tr>
<tr>
<td>helpful</td>
<td>sympathetic</td>
</tr>
<tr>
<td>hostile</td>
<td>tactful</td>
</tr>
<tr>
<td>humorous</td>
<td>tactless</td>
</tr>
<tr>
<td>imaginative</td>
<td>thankless</td>
</tr>
<tr>
<td>impatient</td>
<td>tolerant</td>
</tr>
<tr>
<td>industrious</td>
<td>touchy</td>
</tr>
<tr>
<td>initiative</td>
<td>trusting</td>
</tr>
<tr>
<td>intolerant</td>
<td>undependable</td>
</tr>
<tr>
<td>inventive</td>
<td>understanding</td>
</tr>
<tr>
<td>irresponsible</td>
<td>unfriendly</td>
</tr>
<tr>
<td>irritable</td>
<td>unintelligent</td>
</tr>
<tr>
<td>jolly</td>
<td>unkind</td>
</tr>
<tr>
<td>kind</td>
<td>warm</td>
</tr>
<tr>
<td>mannerly</td>
<td>weak</td>
</tr>
<tr>
<td>masculine</td>
<td>whiny</td>
</tr>
<tr>
<td>nagging</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C
Activity Involvement Rating Sheet
STUDENT ACTIVITY INVOLVEMENT RATING

Please rate your participation in the following extracurricular activities for the PRESENT SCHOOL YEAR (1991-92). Circle the degree of your involvement based on the following definitions:

3 = 100% participation and effort
2 = average participation and effort
1 = a part of the activity but little effort put forth
0 = not a participant

*******IMPORTANT--You must mark one number on ALL items!

<table>
<thead>
<tr>
<th>Athletics</th>
<th>Academics</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Volleyball</td>
<td>-Forensics</td>
</tr>
<tr>
<td>3 2 1 0</td>
<td>3 2 1 0</td>
</tr>
<tr>
<td>-Cross-Country</td>
<td>-Debate</td>
</tr>
<tr>
<td>3 2 1 0</td>
<td>3 2 1 0</td>
</tr>
<tr>
<td>-Football</td>
<td>-Yearbook</td>
</tr>
<tr>
<td>3 2 1 0</td>
<td>3 2 1 0</td>
</tr>
<tr>
<td>-Basketball</td>
<td>-Newspaper</td>
</tr>
<tr>
<td>3 2 1 0</td>
<td>3 2 1 0</td>
</tr>
<tr>
<td>-Wrestling</td>
<td>-Math Relays</td>
</tr>
<tr>
<td>3 2 1 0</td>
<td>3 2 1 0</td>
</tr>
<tr>
<td>-Baseball</td>
<td>-Model UN</td>
</tr>
<tr>
<td>3 2 1 0</td>
<td>3 2 1 0</td>
</tr>
<tr>
<td>-Track</td>
<td>3 2 1 0</td>
</tr>
<tr>
<td>-Golf</td>
<td>3 2 1 0</td>
</tr>
<tr>
<td>-Cheerleading</td>
<td>3 2 1 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<th>Clubs</th>
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</thead>
<tbody>
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<td>-Art Club</td>
</tr>
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<td>3 2 1 0</td>
<td>3 2 1 0</td>
</tr>
<tr>
<td>-Pop Singers</td>
<td>-Ambassadors</td>
</tr>
<tr>
<td>3 2 1 0</td>
<td>3 2 1 0</td>
</tr>
<tr>
<td>-Drama/Musicals</td>
<td>-Natural Helpers</td>
</tr>
<tr>
<td>3 2 1 0</td>
<td>3 2 1 0</td>
</tr>
<tr>
<td></td>
<td>-Student Council</td>
</tr>
<tr>
<td></td>
<td>3 2 1 0</td>
</tr>
</tbody>
</table>
Appendix D

Student Information Sheet
STUDENT INFORMATION SHEET

Please circle ONE italicized response to each of the 4 informational items below. On items 3 & 4, if you choose "Other," please define briefly in the corresponding space.

1. **Gender:** Male  Female

2. **Educational Classification (1991-92 school year):**
   - Sophomore
   - Junior
   - Senior

3. **Residency Status:**
   - **Permanent** -- live in/around Hays with parent(s) or stepparent(s)
   - **Resident A** -- not from Hays-live in dormitory
   - **Resident B** -- not from Hays-live with volunteer foster parents
   - **Temporary** -- not from Hays-live with a relative (grandparents, uncle, brother, etc.) during the school year
   - **Self** ------- live by self or with others-free of adult supervision
   - **Other** -------

4. **Family Structure:** ***NOTE - Respond according to the majority of your life, not just present situation!***
   - **Intact** ------- mother & father both in home
   - **Single Parent**-- only mother or father is in the home
   - **Reconstituted A**-mother has remarried--live with her and stepfather
   - **Reconstituted B**-father has remarried--live with him and stepmother
   - **Other** -------
Appendix E

Letter to Dr. Thomas Parish
Joseph B. Hertel
2702 Elm
Hays, KS 67601
June 25, 1991

Dr. Thomas S. Parish
College of Education
Bluemont Hall
Kansas State University
Manhattan, KS 66506

Dr. Parish:

Thank you for generously taking the time to converse with me over the phone last week concerning your Personal Attribute Inventory (PAI). I am writing to request PAI materials. As part of my thesis, which will deal with self-concept of secondary students, I would like to use your instrument as both a measure of self-concept and a measure of family concept. Any materials you could give me in this area would be greatly appreciated.

Specifically, I need a copy of the instrument (PAI-long form, 100 items), directions for adapting the instrument to different target groups (self and family), and scoring keys for both adaptations (self and family) as well as pertinent information regarding the interpretation and use of the scores. Also, if available, a list of articles pertaining to the statistical nature of the instrument would be very helpful.

Once again, thank you for any help you can give me regarding the PAI. I appreciate your taking the time to locate this information and send it to me.

Sincerely,

Joseph B. Hertel

P.S. In researching the history of the PAI, my understanding is that there is only one resulting measurement score. If this is incorrect, please advise!
Appendix F

Standardized Instructions
Standardized Instructions

1. Administering teacher please articulate the following passages aloud:

Most of you are asked today to participate in a study of high school students regarding self-concept. This study is being conducted by Mr. Joe Hertel, graduate student at Fort Hays State University, as part of his master's degree thesis in counseling.

Because it was important to the study to collect data from a random sample, approximately 30% of you will NOT participate in the study. If you are not given a packet of instruments, just assume that you are not part of the sample and work on other school-related work, but please be QUIET!

To those participating in the study, understand that all of your responses on the instruments are to be given anonymously; therefore, do NOT write your name on any of the pages. All responses will be kept confidential; in fact, no one, not even the researcher, will know which papers are yours.

2. Administering teacher pass out a packet of instruments to each student listed on the sample sheet and have participating students otherwise clear their desks. Once again, read aloud the following:

To mark the instruments, pen or pencil is fine. DO NOT write your name on any of the four sheets. Please mark the four instruments in the order they have been prearranged for you (i.e., top sheet first, etc.). When you complete the first sheet, lay it face down to the side of your desk and it will be collected. If you are unsure about what a word means, raise your hand and ask. Please pay careful attention to the directions on each instrument. If they are unclear, please ask. Finally, your responses will be completely anonymous so please be totally honest and sincere! Thank you for participating in this study!

3. Administering teacher collect completed instruments as they are finished, NOT altogether at the end!

4. Points of Emphasis to VERBALIZE when all participating students are on the same instrument:

PAI-Self 1. mark exactly 30 words
2. descriptive of YOU
3. $'s marked won't reflect order of importance
Points of Emphasis (continued)

Student Information Sheet
1. mark this sheet with 4 circles - that's all!
2. Exception-if circle "other," briefly define!
3. mark family structure according to majority of your life--not just present situation!

Activity Involvement Rating Sheet
1. mark according to the PRESENT SCHOOL YEAR'S involvement (1991-1992)
2. follow definition key

PAI-Family
1. mark exactly 30 words
2. descriptive of YOUR FAMILY
3. numbers marked won't reflect order of importance

5. Administering teacher - No particular arrangement of completed instruments is necessary. Return all instruments to the researcher on completion of the task.

6. Administering teacher - Thank you much for YOUR help in accommodating this survey!

Mr. Joseph B. Hertel