Dissertations   Theses and Dissertations

1981

The Effects of Knowledge of Child Development and Social-Emotional Maturity on Attitudes Toward Parenting

John J. Larsen
Loyola University Chicago

Recommended Citation

THE EFFECTS OF KNOWLEDGE OF CHILD DEVELOPMENT

AND SOCIAL-EMOTIONAL MATURITY ON

ATTITUDES TOWARD PARENTING

by

JOHN J. LARSEN

A Dissertation Submitted to the Faculty of the School of Education

of Loyola University of Chicago in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

May

1981

John J. Larsen

Loyola University of Chicago

THE EFFECTS OF KNOWLEDGE OF CHILD DEVELOPMENT

AND SOCIAL-EMOTIONAL MATURITY ON

ATTITUDES TOWARD PARENTING

This study investigated the relationship between the combined
effect of the independent variables, knowledge of child development
and level of social-emotional maturity, and the extent to which this
relationship affects the dependent variable, attitudes toward parent-
ing. The contention of this study was that a positive attitude to-
ward parenting is influenced not only by knowledge of child develop-
ment but also by a high level of social-emotional maturity. Converse-
ly, a negative attitude toward parenting is influenced by a lack of
knowledge of child development and also by a low level of social-
emotional maturity.

The sample consisted of a total of 434 participants. They were
drawn from several Chicago area high schools, junior colleges, a
Chicago university and a Chicago suburban junior high school. Demo-
graphic information was obtained in the following categories: sex,
age, racial background, two parent family, siblings, birth order,
and course work in child development, participation in parent train-
ing, parenting and babysitting experience.

The testing portion of the study consisted of the administra-
tion of three inventories. Bavolek's Adult/Adolescent Parenting
Inventory was utilized as the attitude measure and selected scales
of the California Psychological Inventory were used as the social-
emotional measure. Knowledge of child development was measured by

the Knowledge of Child Development Inventory. This instrument was specifically designed for the study. The KCDI has a 8.0 reading level (Fry Reading Index), coefficient alpha reliability of .93, and criterion validity of .80.

Multiple regression and canonical analysis techniques were utilized to analyze the data. The analysis of the data suggested that there were significant relationships among knowledge of child development, social-emotional maturity and attitudes toward parenting. In general, the relationships indicated that subjects' negative attitudes toward parenting were associated with lack of knowledge of child development and low levels of social-emotional maturity, and subjects' positive attitudes toward parenting were associated with knowledge of child development and high levels of social-emotional maturity.

Several of the demographic characteristics appeared to be significant within each of the hypotheses. The analysis suggested that the older the subject the more positive her attitude toward parenting, the greater her knowledge of child development, and the higher her level of social-emotional maturity. In addition the analysis suggested that subjects not having taken a college level course in child development or not having children of one's own were associated with negative attitudes toward parenting, limited knowledge of child development, and a lower level of social-emotional maturity.

The findings of this study support the contention that knowledge of child development and social-emotional maturity are factors associated with attitudes toward parenting. The joint impact of the two factors on attitudes toward parenting accounted for 51% of the variation among the variables.

ACKNOWLEDGEMENTS

VITA

John J. Larsen is the son of Dr. John J. Larsen, and Shirley Carole Larsen. He was born on January 8, 1945, in Chicago.

John attended elementary school in Mendota, Illinois and graduated from Mendota High School. His Bachelor of Arts degree was awarded in August of 1968 from Illinois Wesleyan University in Bloomington, Illinois.

In June of 1967, John joined the Peace Corps. After three months of training at San Jose State University in California, he was assigned a teacher training position in the Philippine Islands and served as a volunteer for two years.

John toured Asia and Europe before returning home in August of 1969. In September of 1969, while working as a house-parent in a juvenile home John began his graduate degree program in guidance and counseling. He completed his Masters of Science degree at Illinois State University, Normal, Illinois in August of 1970.

For the next four years, John worked as an elementary school guidance counselor for the Crete-Monee District in Crete, Illinois. He worked closely with the bilingual community implementing an early intervention home based pre-school program as part of a bilingual education grant entitled "Bilingual Education/Pre-School Through Grade Four." He later became coordinator of this program and served as a member of the State Bilingual Education Validation Team. John also received a State

of Illinois grant for a program that he authored entitled "Pre-School Through Grade Two Developmental and Readiness Program."

While in Crete, John did extensive human relations work involving interracial group counseling in cooperation with other schools. During this time he also developed a readiness screening instrument entitled "The Pre-Kindergarten Inventory" and "The Open-Area Inventory", an instrument to measure student understanding and acceptance of open area education.

In 1972 John entered the Ed.D. program in the department of Foundations at Loyola University, concentrating his study in educational psychology. The first two years of study were at the Erikson Institute, the early childhood affiliate of Loyola University.

In 1974, John accepted a position as a teacher of the pre-school handicapped for the Special Education Cooperative of South Cook County, in Chicago Heights, Illinois.

Presently, John holds the position of Assistant Professor at Chicago State University and coordinator of the Pre-School Handicapped Program in the Department of Special Education. Since John assumed the position in 1976, he has also worked closely with the Good Shepherd Center for Handicapped Children in Flossmoor, Illinois, where he facilitates a counseling group for fathers of handicapped children. Also since 1976 John has traveled in numerous states as a Head Start consultant and validation team leader for the Department of H.E.W., Washington, D.C.

TABLE OF CONTENTS

CHAPTER

LIST OF TABLES

CONTENTS OF APPENDICES

CHAPTER I

INTRODUCTION

Parenting is a complex and difficult task. The responsibilities and skills required to guide a child in our society, from helpless infancy to mature adulthood, are unrelenting and challenging to even the most mature adult. Parents under eighteen constitute a high risk group in regard to their own and their infants' physical and mental health and to their social and educational well being. Unfortunately, increasing numbers of adolescents are becoming parents, and at younger ages, which further confounds the task of parenting. Recognizing the need to train adolescents for the parenting task, the federal government and school systems across the nation have begun to provide programs for adolescents. At the present time, the training approach of parenting programs for adolescents focuses on providing cognitive information in child development. The assumption of such training programs is that cognitive knowledge of child development will positively influence the adolescent's attitudes toward parenting and ultimately will influence the individual's behavior when parenting.

However, attitudes and behaviors are influenced by more than cognitive information. Erikson's theory of psychosocial human development suggests that a significant factor in effective parenting is the level of social-emotional maturity of the parenting person.

1

From the Erikson perspective, to be an effective parent, an individual needs to reach a level of social-emotional maturity where by she is able to center on another person and be emphatically aware of and sensitive to the needs of this other person.

The intent of this study is to demonstrate that knowledge of child development and level of social-emotional maturity are interactive variables which affect the development of parenting attitudes. This study investigates the relationship between the combined effect of the independent variables, knowledge of child development and level of social-emotional maturity, and the extent to which this relationship will affect the dependent variable, attitude toward parenting.

The contention of this study is that a positive attitude toward parenting is influenced not only by knowledge of child development but also by a high level of social-emotional maturity. Conversely, a negative attitude toward parenting is influenced by a lack of knowledge of child development and also by a low level of social-emotional maturity.

Background Of The Problem

Parenthood is a major social role for which society requires no credentials and no training (White House Conference, 1970). Two assumptions have pervaded American attitudes toward families and child rearing; (1) that the ability to raise children wisely is a natural talent possessed by most parents and (2) that child rearing is always a joyful, positive experience.

However, there is growing evidence that neither of these assumptions is entirely true. Parenting abilities are assumed to develop naturally as part of having been a member of a family. The small, mobile family of today does not offer young people growing up the same opportunities for experiences with young children or for observing parent roles as were provided in the larger families of two or three generations ago. Only one in twenty households today contains an adult other than parents. The average family has approximately two children compared to five in families a century ago. Moreover, in 1970 nearly 20 percent of adolescents between the ages of 14 and 17 did not live in a two-parent home. This percentage continues to increase each year; today the figure may be close to 25 percent. (Pierce, 1975).

The responsibility and skills required in caring for young children too often come as a surprise for a new parent. Providing guidance for the development of a young child from helpless infant to mature adult is a complex and unrelenting task. A parent can become frightened, disorganized, and bewildered. Feelings of inadequacy; insecurity concerning child-rearing methods; and lack of outside resources for advice, support, help, and temporary relief from the continuous responsibilities of parenthood can easily put great stress on a mother and result in poor decisions for the welfare of her child (Pierce, 1975).

Many parents find the burdens of child rearing more difficult than they imagined, perhaps more difficult than one or two individuals can bear successfully alone, even though most parents initially approach the task as an intensely joyful experience. Raising children entails years of continuous responsibility financially, emotionally, and psychologically. Many parents are prevented from adequately meeting their children's needs as a result of the stress involved in child rearing. It is estimated that 35 percent of supposedly normal children display behavioral difficulties by the age of four. In addition, an estimated 60,000 children are victims of serious child abuse each year (Child Abuse Report No. 71).

The complexities of parenting are even more strenuous for teenage parents. Teenage parents are generally less able than adult parents to nurture and care for their children. The maternal death risk is 60 percent higher for teenage mothers than for women in their 20's (Illinois Caucus, 1979). Longer labor and more obstetric complications are observed for teenage mothers than for adults (Field, 1979). Teenage girls have a greater probability of serious health problems during pregnancy and delivery than any other group except women over 40 (Whelan and Higgins, 1973). Yet, 70 percent of teenage mothers receive no prenatal care (Illinois Caucus 1979). The suicide rate for the teenage mother is seven times higher than is the rate for non-mothers (Illinois Caucus, 1979).

Infant mortality (Illinois Caucus, 1979) for mothers under

18 is almost three times as high as that of women 20 to 24 years of age, and the number of low birth weight babies is greater among teenage mothers than any other age group. One out of four low birth weight babies is born to a teenage mother, about 60,000 in 1979. Not only does low birth weight decrease the chance for the babies survival during the first year, but it also appears to have an adverse effect on children's later development (Whelan and Higgins, 1975). Studies indicate low birth weight babies are more likely to be mentally retarded and generally have more learning disturbances than normal weight babies (Pierce, 1975, Ventura, 1977).

The number of teenage pregnancies is alarming. In 1976, 1,100,000 teenage pregnancies resulted in 570,672 live births, 378,500 abortions and 152,000 miscarriages or stillbirths (Tietze, 1979). Three-fourths of teenage pregnancies occur prior to marriage. One-fifth of all births in the United States, over 600,000 in 1978, were to teenagers. One-third of the abortions performed in the United States were to teenagers (Problems Of Early Pregnancy, 1979).

Although the number of total births in the United States has been declining since 1960, the proportion of teenagers who are mothers has increased from 12 percent in 1950 to nearly 20 percent in 1973. It was reported that in 1974, nearly 600,000 babies were born to teenage mothers in the United States, most of whom were unwed, accounting for nearly one out of every five live births (Markham and Jacobson, 1976). An analysis of this

figure by the National Center for Health Statistics (1976) indi-
cates that one percent of the 15 year-olds, three percent of the
16 year-olds, six percent of the 17 year-olds and eleven percent
of the 18 year-olds had given birth to at least one child. Con-
trary to a trend in the 1960's the majority of teenage pregnant
women are opting to keep their babies, rather than to give them up
to adoption (Connolly, 1975).

The impact of teenage child bearing can be made more com-
prehensible by reviewing the statistics for a particular geographic
area. In the state of Illinois, 29,000 girls between the ages of
15 and 19 gave birth to a child in 1979, which represents 18 per-
cent of the total births in the state. An additional 700 babies
were born to girls under 15 for the same time period. In Illinois
25 percent of all abortions are obtained by women 15 to 19 years
of age. Within the Chicago Metropolitan area, over 18,000 births
were to women age 19 and under in 1976, of these 500 were girls
under 15. Over one-half of these births were premarital. In
Chicago, for 1976, the infant mortality rate was 23.7/1000 live
births, which was the fourth highest rate among the 26 largest
cities in the United states. In 1975 in Chicago, the neonate
mortality rate (for babies under 28 days old) was 16.2/1000,
the second worst death rate among the five largest cities in the
United States (Illinois Caucus, 1979).

Markham and Jacobson (1976) predict that one out of
ten teenage girls in the United States will become a mother while
of school age, and, of this group, most of the girls will keep
their babies, with about 40 percent remaining single while still

attending school. Tietze's (1979) predictions are more alarming; he estimates that 34-39 percent of all of today's 14 year old girls will have at least one pregnancy before age 20. Twenty percent will give birth; 13 percent will obtain an abortion; and six percent will have a stillbirth or miscarriage.

According to Markham and Jacobson (1976), most teenage girls in the United States are not prepared to cope with the day to day needs of a baby. The teenage mother's initial excitement about having a baby can be soon superceded by social and economic problems. When the constant demands of caring for the baby become difficult, abuse of the baby may result (Markham and Jacobson, 1976). Smith, Hanson, and Nobel (1975) reported, in a study involving 134 battered children, the average age of abusive mothers was 19 years at the birth of their first child.

More adolescents are becoming parents and at younger ages, while at the same time parenting is being recognized as a complex and encompassing task that requires a good deal of skill for the parent to be effective. Unfortunately, the nuclear family of today does not even offer young people who are growing up the same opportunities for experiences with young children such as observing parenting roles as were provided in the extended families of two or three generations ago.

The effects of becoming pregnant as a teenager can be devastating for both the mother and child. Early parenthood makes optimal child rearing substantially more difficult. Teenage parents are less likely than adult parents to be able to support the optimal development of their children.

The Statement Of The Problem

The training of adolescents for the parenting task has recently been given considerable emphasis. The major purpose of the training is to better prepare adolescents for parenting before they have to assume the actual responsibility as adults. The alarming number of adolescents becoming parents before they reach adulthood, however, accentuates the need for preparation for the task of parenting.

In 1972, the federal government responded to the need to train adolescents for the parenting task by funding the development of Exploring Childhood, a comprehensive curriculum which focuses on increasing the adolescent's knowledge of child development. Many high schools, in an effort to prepare adolescents for the parenting task, are offering elective courses in child development. Most of these are structured similarly to college courses in child development, i.e., age level characteristics of young children are presented in the general areas of emotional, cognitive, physical, and social development. The underlying assumption in such programs is that increased cognitive knowledge of child development will positively influence the adolescents' attitudes toward parenting and ultimately, when they do become parents, will influence parenting behaviors.

However, behaviors and attitudes can be and are influenced by more than cognitive information. It is the contention of this study that the social-emotional maturity of the parenting person is another significant factor in effective parenting. To be an

effective parent, an individual needs to reach a level of social-emotional maturity whereby she is able to center on another person and be empathically aware of and sensitive to the needs of this person. Conversely, if an individual remains centered on meeting her own unmet needs, she will be unable to be empathically aware of, sensitive to, or willingly, responsible for another person and thus, will be an ineffective parent. The maturity factor is particularly relevant to adolescent parenting and to the training of adolescents for the parenting task.

The theory of Erikson (1950, 1968) has been chosen to characterize psychosocial development because Erikson has specifically addressed the issue of when within an individual's life cycle, one's needs and abilities correspond with the demands of taking care of an infant. In addition, Erikson's theory succinctly defines the dilemma of being both an adolescent and a parent. From the Erikson perspective, most individuals at the adolescent state of development, i.e., Identity vs. Role Confusion, would not have attained the appropriate level of needs to be able to adequately meet the needs of an infant.

Adolescence is a distinct stage of development between childhood and adulthood that has its own unique needs and concerns. According to Erikson (1950, 1968) the adolescent is concerned with resolving the conflict of Identity vs. Role Confusion. This stage is characterized by the development of a clear and continuing sense of who one is and what one's goals are, a sense of identity. Identity confusion, conversely, is when the individual has not attained a sense of inner

unity and fittedness with her role in society.

Being not yet mature themselves, many young parents understandably have difficulty coping with the demands and responsibilities of an infant. The adolescent task of striving to achieve a sense of identity and the task of meeting the demands and responsibilities of parenting an infant very easily can be incompatible. The adolescent must first establish an identity of "Who am I?" and develop a sense of intimacy with another person before she is developmentally prepared for the demanding responsibilities of parenthood. Erikson (1950, 1968) defines the first stage of development as Trust vs. Mistrust. To develop a sense of trust the infant needs satisfaction of his physical needs for nourishment, sleep, and warmth, and his psychological needs for response, contact, affection, and play. The responsibility of meeting these physical and psychological needs of the infant is that of the mother, or mothering person.

Erikson (1950, 1968) states that the ideal stage for an individual to carry out the responsibilities of mothering is that of Generativity vs. Stagnation. This stage is characterized by an ability and desire to be productive and to nurture and devote one's self to others such as children (generativity) and to produce work. To effectively mother, the mothering person must be able to effect an optimal-enough matching of her needs as a mother and individual with those of the child. To achieve this end, having a child must be sufficiently ego syntonic and sufficiently emotionally gratifying. The mothering person must be able to integrate having a child with her other

fundamental needs, such as fulfilling life long identifications and self images. This mature adult stage of development is indicative of a high level of social-emotional maturity and is fully attainable only after the individual has adequately achieved the prerequisite adolescent stage of Identity vs. Role Confusion and the young adult stage of Intimacy vs. Isolation.

According to Erikson (1950, 1968) only after the stage of Generativity has been reached do the needs of the individual and the expectations of society coincide in a desire to nurture and devote one's self to others such as in the role of mother to infant. The adolescent girl may be too concerned with self to be able to expend herself to meet the needs of another, especially the complex and persistent task of guiding the development of a young and helpless infant.

Theoretically, attitudes toward parenting are influenced by knowledge of child development (the cognitive perspective) and level of social-emotional maturity (the psychological perspective). It is the contention of this study that attitudes toward parenting are affected by the joint impact of these two factors. A review of the related research indicates that no study has been done to investigate the combined interactive effect of these two factors on attitudes toward parenting.

Purpose Of The Research

The intent of this study is to investigate the hypothesis that knowledge of child development and social-emotional maturity are interactive variables which affect the development of parent-

ing attitudes. Parenting attitudes are influenced by both the individual's knowledge of child development and the person's social-emotional maturity; these two variables operate in combination, not as separate independent factors. Should this contention be supported empirically, then the social-emotional maturity variable would acquire support as an important factor to be considered in the training of adolescents for the parenting task.

Method Of Procedure And Overview

Four hundred and thirty four (434) subjects participated in the study. The subjects were drawn from South Suburban Chicago area high schools, junior colleges, a junior high school, and a Chicago university.

The combined independent variables of the study are knowledge of child development and social-emotional maturity. The dependent variables are attitudes toward parenting and child rearing practices. The variables were measured using the following instruments. The knowledge of child development variable was measured by the Knowledge of Child Development Inventory referred to henceforth as KCDI, an instrument which was specifically designed for this study. The social-emotional maturity variable was measured by the Class II Measures of Socialization, Maturity, Responsibility and Intrapersonal Structuring of Values, of the California Psychological Inventory, referred to henceforth as Class II Measures of the CPI. The dependent variable, attitudes toward parenting, was measured by the Adult/Adolescent Parenting

Inventory referred to henceforth as the A/API.

The question addressed in this study is as follows: Are one's knowledge of child development and one's social-emotional maturity interactive variables which affect the development of parenting attitudes? The following hypotheses were utilized to investigate the stated problem:

Null Hypotheses

Hypothesis 1: There is no significant relationship between subjects' knowledge of child development scores as measured by the KCDI and the subjects' respective parenting attitude scores as measured by the A/API.

Hypothesis 2: There is no significant relationship between subjects' social-emotional maturity scores as measured by selected scales of the CPI and the subjects' respective parenting attitude scores as measured by the A/API.

Hypothesis 3: There is no significant relationship between subjects' knowledge of child development scores as measured by the KCDI and the subjects' respective social-emotional maturity scores as measured by selected scales of the CPI.

Hypothesis 4: There is no significant relationship between subjects' knowledge of child development total scores as measured by the KCDI, subjects' social-emotional maturity scores as measured by selected scales of the CPI, and the subjects' respective parenting attitude scores as measured by the A/API.

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this study is to demonstrate that knowledge of child development and level of social-emotional maturity are interactive variables which affect the development of parenting attitudes. The study investigates the relationship between the independent variables, knowledge of child development and level of social-emotional maturity and the extent to which this relationship affects the dependent variable, attitudes toward parenting. The following review of literature is presented to examine research related to knowledge of child development and social-emotional maturity as factors in the task of parenting and to establish attitudes toward parenting as a measure of behavioral intent.

Knowledge Of Child Development As A Factor In Parenting

An assumption of this study is that knowledge of child development is a factor in parenting. To substantiate this assumption, the following are reviewed in this section: the importance the discipline of child development places on knowledge of child development as a factor in parenting, the lack of knowledge of child development that has been identified as characteristic of abusive parents and adolescents, and parent training programs that include a component of teaching child development. In addition, a review of instruments to measure child development is included in this section.

14

Parental Influence On The Child's Development

The basic assumption on which the discipline of child
development proceeds is that the experiences of childhood have
vital importance, not only in shaping the present state of the
child, but in influencing future behavior and personality as
well, i.e., the basic characteristics of the individual's per-
sonality and potentialities are determined in infancy and early
childhood.

Yarrow (1961) states,

"The significance of early experience for later
development has been reiterated so frequently and
so persistently that the general validity of this
theory is now almost unchallenged." (P.463)

Without discounting the role of constitutional factors and
other environmental experiences, there is widespread adherence
within the discipline to the paramount significance of parenting
as the crucial factor in the child's development (Freud, 1910;
Watson, 1928; Hebb, 1949; Bandura, 1969; Steele, 1970; Martin,
1976)

The belief in the crucial and formative role of the parent
in early parent-child interactions has roots and present support
in both psychoanalytic theory (clinical and observational) and
learning theory (experimental). Freud (1910) through his obser-
vations of patients came to believe that the experiences of
early childhood leave deep impressions upon the adult psyche and
act as determinants of his behavior. Watson, (1928) proclaimed
that the child's whole emotional disposition was set at three

years of age. By this age parents had already determined for
their child whether he would grow into a

> "happy person, wholesome, and good-natured, or
>
> whether the child would be a whining, complain-
>
> ing, neurotic, anger driven, vindictive, over-
>
> bearing slave driver, whose every move in life
>
> was definitely controlled by fear." (P.35)

Recognition of the profound influence parents have upon
early childhood development has created the impetus for re-
search into child development and the determinants and conse-
quences of different child rearing practices. Knowledge delin-
eating childhood needs during the first three years of life and
the establishment of optimal parental behaviors for meeting these
needs are becoming clearer. This knowledge is resulting in a
more defined perception of how to effectively parent.

The Importance Of Parental Knowledge Of Child Development

The discipline of child development is concerned with ob-
serving how children develop, how they are influenced by exper-
ience, and how this information might be applied to the rearing
of children. The intent is to establish an outline of how a
child develops from infancy through adolescence, and to use this
information to influence child rearing. The belief is that the
more cognitive knowledge of child development an individual has,
the more effectively he will be able to parent.

Although there has been little or no empirical research to
substantiate the relationship between the amount of cognitive

knowledge of child development and effective parenting, there is research suggesting that a contributing factor to ineffective parenting is a lack of knowledge of child development.

A lack of appropriate knowledge of child development has been identified as a factor in abusive parenting. Research indicates abusive parents often have unrealistic estimates of what the young child is able to understand. (Badger, 1969; Bavolek et. at., 1978; Collins, 1975; Green, 1976; Hefler, 1973; Justice & Justice, 1976; Landsman, 1974; Martin, 1976; Scheurer, 1977; Steele & Pollock, 1968; Steele, 1970; Wall, 1975; and Wright, 1974). Hefler, (1973) Landsmann (1974), Steele (1970), Wall (1975), and Wright (1974) report further that abusive parents overestimate the physical and mental development of their children, which results in abusive parents placing inappropriate and unattainable expectations on their children. The abusive parent lacks a functional concept that children are individuals with age-appropriate needs and behaviors (Hefler, 1973; Landsmann, 1974; Steele, 1970; Wall, 1975; Wright, 1974).

Lack of knowledge of child development has also been identified as a factor contributing to difficulty in teenage parenting. Field (1979) reports some differences between teenage parents and adult parents and their offspring in the early months of life. Teenage mothers of term babies expected their infants to attain certain developmental milestones later than did adult mothers. Whereas, teenage mothers of preterm infants expected these milestones would appear much earlier. Others have also

reported that teenage parents' expectations of their childrens' development are inaccurate. DeLissovoy (1973) interviewed and observed a group of white teenage parents from a rural working background. He reported that both mothers and fathers had early expectations for normative behaviors. Epstein (1978) reported that among black teenage mothers, late developmental expectations were negatively related to awareness of child development. Whelan and Higgins (1973) reported that most young parents are ignorant of what is expected of an infant in his first years, often expecting him to sit alone at six weeks, to be toilet trained by six months, and to recognize wrong doing before he is one year of age. Weigle (1974) found similar results. He reported that adolescents seem to know very little about infants, i.e. the age at which a baby can be expected to smile, crawl, sit up or achieve other developmental milestones. Weigle (1974) concluded that this lack of knowledge of appropriate child development results in adolescent parents' having unrealistic expectations of their children.

Burton White (1975) states that today's young parents are quite unprepared for the responsibilities of educating their first child, and that as a society we need to provide a systematic way to educate couples for the responsibilities of parenting young children.

Imparting Knowledge Of Child Development To Parents

There is a strong belief among many early childhood professionals that a significant factor in ineffective parenting is a lack of knowledge of child development. Subsequently, one

component of parent training programs has been the teaching of knowledge of child development to parent trainees.

Systematic parent training has been developed for groups who are considered especially in need of parent training. Three such groups are: parents of disadvantaged preshoolers, parents of handicapped preschoolers, and adolescents. In addition, parent training has been available to the general public through the childrearing books currently in print and P.E.T. (Parent Effectiveness Training) type systematic parent training programs. In most of the parent training programs, as well as in the child rearing books, an underlying intent is to increase the participant's cognitive knowledge of child development.

Parent training in compensatory early childhood programs.

Compensatory programs for the young disadvantaged are required by government regulation to include a parent involvement component. Teaching child development content has been an integral part of the parent involvement component of many of these compensatory programs. The objective of providing this cognitive content is to increase the parents' understanding of child development which, in turn, is believed to improve the parents' interactions with their children.

Target areas of training are language development, physical, psycho-social, and cognitive development of the child. The Florida Parent Education Program (Gordon, 1967; Gordon and Jester, 1973), the University of Illinois Project (Karnes, Teska, Hodgins & Badger, 1970, and Badger, 1969) the Demonstration and Research Center for Early Childhood Education (Beller, 1973; Forrester, 1971) con-

duct parent training programs focusing on physical, psycho-
social, and cognitive development of the child. Hamilton
(1970), Rayder (1970), and Beller (1973) report on other par-
ent child programs that concentrate on general child develop-
ment. Other programs have a narrower focus. The Verbal Inter-
action Project (Levenstein, 1971 & 1972) and the Ypsilanti Home
Teaching Program (Weikart & Lambie, 1968; Weikart et. al., (1970),
stress cognitive and language development of young children in
their parent training.

Although many parent training programs report child gain
scores, the diversity of programs and lack of data on parent's
entry behaviors and post training behaviors does not allow for
analysis of the exact effects of training upon parents. However,
cognitive gains of children after parent participation in train-
ing suggests changes do result in parents' behaviors towards
their children, and that these changes subsequently have posi-
tive effects on their children's cognitive development.

Parent training in early childhood/special education programs.

The Portage Project (Weber et al. 1975) is the prototype
model that most early childhood/special education home-bound
programs have adopted. In this model the program sends teachers
into the homes of preschool handicapped children to train the
parents to more effectively design an educational program for
their children. A developmental check list is utilized to
identify the child's specific needs in the areas of cognitive/
language, social, and fine and gross motor development. The
emphasis during the visit of the teacher is parent instruction.

The parent is taught how and what to teach and how to observe behavior and document these observations.

Several other government sponsored demonstration projects utilize similar program formats to train parents as the primary teacher of their children, the Peach Project at the University of Illinois (Karnes, 1975), the LAP Project at Chapel Hill, North Carolina (Sanford, 1974), and the 0 to 3 Infant Program at Peoria, Illinois (Smiley, 1976). In addition, many center based programs have added home-bound components that utilize this delivery model for the home-bound portion of the program.

Evaluation data indicating changes in parent behaviors or child cognitive gains are not available. However, it is assumed that the approach must be minimally successful due to the nation-wide utilization of the model in early childhood/special education programs.

Parent training for adolescents.

The federal government, through funding, has sponsored the development of parenting programs for groups especially considered to be in need of parent training, i.e. low income families and families of preschool handicapped children. Another group with recognized special needs is the adolescent parent.

The largest single parenting education project to date for adolescents has been the joint effort of the U.S. Office of Education and the Office of Child Development in the Education for Parenthood Project. The nationwide effort began in 1972 and has included two main programs. The Exploring Child-hood Program curriculum developed by the Education Development

Center of Cambridge, Massachusetts has been widely disseminated and evaluated through the nation's junior and senior high schools (Cobb & Peters, 1975; Hippel & Cohen and Associates, 1976.) The out-of-school Education For Parenthood demonstration project has been organized around several national voluntary organizations including the Boy and Girl Schouts of America and the 4-H clubs (Morris, 1977). Both the in-and out-of-school Education For Parenthood programs have the goals of teaching teenage boys and girls about child development and the role of the parent in it. Ultimately, the experience to provide the adolescent with the necessary information and knowledge to competently rear children when and if parenthood is chosen (Morris, 1977; Kruger, 1975).

Results of evaluation findings indicate that the Exploring Childhood Program was particularly effective in helping students to apply child development concepts to real life situations and in equipping students with the necessary skills for learning more about the children with whom they work. The Exploring Childhood Program was less effective in providing students with additional information on knowledge of child development per se, (Hipple & Cohen, 1976).

Parent training programs for the general public.

Parent training programs have been available to the general public as well. The most widely utilized approach has been group parent training such as (P.E.T.) Parent Effectiveness Training, (Gordon, 1970) and (STEP) Systematic Training

For Effective Parenting (Dinkmeyer & McKay, 1976). Both of
these approaches to parent training attempt to provide parents
with effective child management skills in a group setting. The
emphasis is on identifying the child's behavior, understanding
the meaning behind the behavior, and then using effective child
rearing practices to maximize the child's development. Specific
outcomes from such training have not been noted.

Instrumentation To Measure Knowledge Of Child Development

Although knowledge of child development is considered an
important factor in effective parenting and the teaching of
child development is an intregal component of most parent train-
ing programs, knowledge of child development remains a presumed
factor in effective parenting. There has been limited empirical
study of knowledge of child development as a factor in effective
parenting. This is due in part to the presumed obvious need to
understand child development in order to effectively parent.
However, another fundamental reason for the lack of research
upon this concept is that there is a lack of instrumentation to
measure the extent of or lack of knowledge of child development.

An exhaustive search including Buros Mental Measurement
Yearbooks, The Educational Testing Service, The Education for
Parenthood Evaluation Project, ERIC, and departments of child
development at colleges, universities, and junior colleges indi-
cates a general lack of testing instrumentation to measure know-
ledge of child development.

The few instruments that are available either lack stan-
dardization or are developed for a specific population, making

them inappropriate for the general population. The one standardized instrument that is available is the College-Level Subject Examination (CLEP) in Human Growth and Development (Buros, 1978). This instrument is used to certify individuals as having equivalent knowledge of child development to that of students who have completed a college level course in Human Growth and Development; for the general public this instrument is too broad in scope covering content such as theoretical foundations, research strategies and methodologies and is much too technical in terminology using such terms as psychoanalytic, correctional techniques, and organic defects.

The Exploring Childhood Program attempted to develop an instrument to measure knowledge of child development that would be appropriate for use with the general public, but discontinued the project. Morris (1978), the Exploring Childhood Programs Evaluation Director, indicated that the instrument failed to differentiate individuals with appropriate knowledge of child development from those who lacked such knowledge.

Because the first component of the independent variable of this study is that knowledge of child development is a factor in effective parenting, and because instrumentation to measure knowledge of child development that is comprehensible to the general population and which is standardized is unavailable, it was first necessary to develop an instrument to meet these criteria. Phase I of Chapter III of this study details the Knowledge of

Child Development Inventory. This assessment instrument is
specifically designed to measure knowledge of child develop-
ment while keeping the technical terminology at a minimum and
the reading level comprehensible to the general public. (8.0
grade level). A copy of the Knowledge of Child Development
Inventory (KCDI) is in Appendix A of this paper.

Social-Emotional Maturity As A Factor In Parenting

A second assumption of this study is that the social-
emotional maturity of the parenting person is a factor in
parenting. Reviewed in this section are: Heath's concept of
maternal competence, personality characteristics of abusive
parents, and adolescent parenting. In addition, the California
Psychological Inventory, the instrument used to measure the per-
sonality trait of social-emotional maturity in this study, is
reviewed.

Heath's Concept Of Maternal Competency

In this paper Erikson's theory of psychosocial develop-
ment has been utilized to emphasize the importance of social-
emotional maturity to parenting. Heath (1977) has elaborated
on Erikson's theory and has proposed that maternal competence
is the primary function of maternal maturity, i.e., a mature
mother is a competent mother. It follows then that maternal
incompetence is a primary function of maternal immaturity.
The immature mother being egocentric, is incapable of empathic
understanding of her child. Lacking confidence in herself as
a mother, she is threatened by problems which arise during child
rearing, and therefore, is more likely to handle child-rearing

problems in a haphazard manner, dominated by her own impulses, feelings, and reactions. Lacking self-control and frustration tolerance, she is apt to use inappropriate and often punitive means to control.

In contrast Heath (1977) states the mature mother is able to symbolize, anticipate, and reflect upon difficulties she may have with her child. Being more allocentric the mature mother is capable of empathically understanding the view points and feelings of her child. The more mature mother, being more self-confident and stable, is less threatened when problems arise in child rearing. Being more autonomous, she is capable of independently developing, initiating, and carrying out child rearing strategies.

Heath bases his concept of maternal maturity on the human personality trait of maturity. Heath (1977) characterizes the more immature person as one who is egocentric or self-concerned, unstable, and dependent. The immature person is dominated by immediate needs and gratification. The less mature person's values are congruent with her temperamental preferences and the individual is caught up in her own bodily impulses, infantile wishes and conflicts. She is narcissistic. She becomes easily disorganized and in poor control of her impulses. The immature person believes herself to be so unique, so alone, so isolated that she cannot possibly be understood.

In contrast, Heath (1977) characterizes a mature person as one who has become more allocentric or other centered, inte-

grated, stable, and autonomous. The mature person is not dominated by her own immediate needs, she cares about other people and is motivated to help others. She sees herself as fundamentally like most other people. The mature person is able to analyze and judge information; she is able to be objective. A mature person is better able to postpone and delay meeting her own immediate needs. She is less driven by infantile wishes and conflicts; she is less manipulative. The more mature person has a more stable self-image and more resistant to disruption by threat in intellectual skills, values, images of herself, and interpersonal relations.

Personality Characteristics Of Abusive Parents

Theoretically social-emotional maturity is considered an important factor in parenting. Research of inadequate parenting supports this contention; nowhere is the failure of parents in child rearing better illustrated than in current child abuse literature. In this section, the personality characteristics of abusive parents will be reviewed.

The abusive parent has been characterized as an individual who has unmet emotional needs of his/her own (Ackley, 1977; Caskey & Richardson, 1975; Hefler, 1973; Martin, 1976; Melnick & Hurley, 1969; Steele & Pollack, 1968; Steele, 1975); lacks self-esteem (Ball, 1977; Hefler, 1973; Steele, 1975); has low frustration tolerance (Hageman, 1977; Passman, 1977; Thompson, 1977); lacks ego strength (Blumberg, 1977; Katz, 1975); and is dependent (Smith, 1976; Steele, 1975).

The abusing parents are found to lack mothering skills i.e.,
maternal warmth and supportiveness (Bullard, Glaser, Heagarty &
Pivchik, 1967; DeLissovoy, 1973; Ewens, 1970; Hefler, 1973; Kempe
et. al., 1962; Steele & Pollock, 1968); not being empathically
aware of the child's needs (Hefler, 1973; Landsmann, 1974;
Steele, 1975; Wall, 1975; and Wright, 1974) and often misper-
cieve the child's intentions (DeLissovoy, 1973; Hefler, 1973;
Kempe, et al., 1962; Steele, 1975; Walker, 1977).

In child rearing matters, the abusive parent acts in ways
primarily orientated toward the parent's own needs and conven-
iences rather than to the child's (Ackley, 1977; DeLissovoy,
1973; Hefler, 1973; Steele & Pollock, 1968; Steele, 1975), and
copes with stress through repression, denial, projecting and
punitive means (Blumberg, 1977; Hageman, 1977; Hefler, 1973;
Passman, 1977; Steele & Pollock, 1968; Steele, 1975).

To summarize, the concept of social-emotional immaturity
incorporates all of the personality characteristics attributed
to the abusive parent. Blumberg (1977), Hefler (1973) and
Steele (1975) each summarize the personality characteristics
of the abusive and neglectful parent as immaturity.

Adolescent Parenting

Social-emotional maturity as a factor in effective par-
enting is also supported by research into the consequences of
adolescent parenting. Research suggests that young parents are
ill prepared for the parenting task not only as a result of
inadequate knowledge of child development, but also as a re-
sult of their inadequate maturity. Weigle (1974) indicates

that adolescents have their own developmental stresses, needs, and moods that can interfere with child rearing. Bruce (1978) states that parenthood demands new social skills on the part of the young parent, before the roles and tasks of parenthood are comprehended by the individual. Nye's (1976) research concurs with this; he states that school-age girls and boys may attempt to be effective parents, but their biological, occupational, and social development is not yet advanced to the point that adolescents can handle adult responsibilities with success. Mercer (1976) warns that developmental conflict and crisis may arise when one is attempting to cope with adolescence, pregnancy, marriage, and motherhood all in the same period of time. In addition, the Hatcher (1973) study suggests the possibility of consequences resulting from immature adolescents functioning as parents of young children.

The California Psychological Inventory As A Measure Of Social-Emotional Maturity

The second independent variable in this study is social-emotional maturity of the parenting person as a factor in effective parenting. The California Psychological Inventory (Gough, 1957) was chosen as the instrument to measure social-emotional maturity for specific reasons; it is intended to be used with "normal" subjects, it can be used effectively with young subjects, and the instrument obtains an indepth assessment of personality characteristics associated with social-emotional maturity. From the researcher's perspective, of the major personality inventories, the CPI best assesses the

Erikson concept of maturity. The CPI (California Psychologi-
cal Inventory is made up of four broad categories of scales.
For the purposes of this study the broad category of Class II
Measures of the Socialization, Maturity, Responsibility, and
Intrapersonal Structuring of Values is relevant. Gough
(Megargee, 1972) grouped these measures together because he
felt they assessed socialization, maturity, responsibility
and intrapersonal structuring of values. Adjectives associ-
ated with these scales stress the triumph of reason over emo-
tion; high scorers are seen as; calm, mature, dependable people
who are warm and responsive to others but in good control of
their own feelings; whereas, low scorers are seen as; volatile,
impulsive, and likely to step on other people's toes in their
heedless pursuit of pleasure (Megargee, 1972). Following is
a description of each of the four scales utilized as trait
measures in this study including an interpretation of the
meaning of high and low scores for each scale.

Responsibility (Re): To identify persons of conscientious,
responsibile, and dependable disposition and temperament. High
scorers tend to be aeen as: planful, responsible, thorough, pro-
gressive, capable, dignified, and independent; as being conscien-
tious and dependable; resourceful and efficient; and as being
alert to ethical and moral issues. Low scorers tend to be seen
as: immature, moody, lazy, awkward, changeable, and disbeliev-
ing; as being influenced by personal bias, spite, and dogma-
tism; and as under-controlled and impulsive in behavior.

Socialization (So): To indicate the degree to social maturity, integrity and rectitude which the individual has attained. High scorers tend to be aeen as: Serious, honest, industrious, modest, obliging, sincere, and steady; as being conscientious and responsible; and as being self-denying and conforming. Low scorers tend to be seen as: defensive, demanding, opinionated, resentful, stubborn, headstrong, rebellious, and undependable; as being guileful and deceitful in dealing with others; and as given to excess exhibition, and ostentation in their behavior.

Self-control (Sc): To assess the degree and adequacy of self-regulation and self-control, and freedom from impulsivity and self-centeredness. High scorers tend to be seen as: calm, patient, practical, slow, self-denying, inhibited, thoughtful, and deliberate; as being strict and thorough in their own work and in their expectations for others; and as being honest and conscientious. Low scorers tend to be seen as: impulsive, shrewd, excitable, irritable, self-centered, and uninhibited, as being aggressive and assertive; and as overemphasizing personal pleasure and self-gain.

Tolerance (To): To identify persons with permissive, accepting, and non-judgemental social beliefs and attitude. High scorers tend to be send as: enterprising, informal, quick, tolerant, clear-thinking, and resourceful; as being intellectually able and verbally fluent; and as having broad and varied interests. Low scorers tend to be seen as: suspicious, narrow,

aloof, wary, and retiring; as being passive and overly judge-
mental in attitude; and as disbelieving and distrustful in per-
sonal and social outlook.

Attitudes Toward Parenting As A Measure Of Behavioral Intent

Attitudes are considered the most accurate predictors of
behavioral intent known and have been widely utilized in the study
of parenting and child rearing practices. In this section a defi-
nition of attitude is given, the structure of attitudes is out-
line, and the instrument utilized to obtain the dependent variable
in this study, the Adult/Adolescent Parent Inventory, is described.

Attitudes As Predictors Of Behavioral Intent

Studying parenting behaviors has several inherent difficul-
ties. First, experimental manipulation of parent-child inter-
actions may not be able to replicate the authenticity of families
and creates ethical questions. Second, the direct observation of
childrearing practice is a complex and expensive proposition. For
these reasons the study of parenting attitudes is an important
method of researching parenting.

The belief that attitudes predispose behavioral action is
the primary reason for measuring an individual's attitude towards
an object or condition. The investigator wants to know how the
individual would act, or how he believes he would act, in a
particular situation. Davey (1976) states that deducing be-
havioral intentions from expressed attitudes is logically de-
fensible. Davey (1976) explains that an individual's intentions
arise out of his/her beliefs about the environment over a period
of time; these beliefs are expressed through behaviors which are

congruent with the individual's beliefs.

Attitudes are considered the most accurate predictors of behavioral intent known (Davey, 1976). Gordon Allport (cited in Fishbein & Ajzen, 1975) state that "attitude is probably the most distinctive and indispensable concept in contempory American psychology. No other term appears more frequently in experimental and theoretical literature" (p.v).

The Structure Of Attitudes

For this study, the definition of an attitude is that presented by Katz and Stotland (1959) as "a tendency or predisposition to evaluate an object or symbol of an object in a certain way". According to Lott (1973, P. 921) most theorists view attitude structure as being composed of three components. The cognitive component consisting of the information, knowledge, and beliefs which the individual has about the object. An affective or emotional component being the feelings of good or bad, like or dislike of the object. And third, the behavioral or action component describing the response disposition associated with the attitude. Katz and Stotland (1959) and Fishbein & Ajzen (1975) report that the three components of attitude are related to one another in a lawful way, that there is a trend toward consistency among the three components. Therefore, within an individual, cognitive information and his affective feelings are not separate dimensions; but each is influenced by and part of the other; and it is the combined interaction between these two components that predisposes behavioral responses by the individual.

Research in child rearing practices and parenting often is reported in terms of both attitudes and behaviors of parents due to the researchers inability to separate the two aspects. Literature reviews of childrearing practices and parenting are reflective of this procedure of not separating attitudes from behaviors, i.e. Waters and Stinnett (1971) "Parent Child Relationships: A Decade Review of Research", Clarke-Stewart (1977) Child Care in the Family: A Review of Research And Some Propositions For Policy. At the same time these literature reviews (Clarke-Stewart, 1977; Waters & Stinnett, 1971) have reported other specific attitudes separately from the behavioral component; they have reported attitudes that are believed to be conducive to effective parenting as well as attitudes that are considered detrimental to optimal child development.

The Adult/Adolescent Parent Inventory As A Measure Of Attitudes Toward Parenting

The dependent variable in this study is attitudes toward parenting. The instrument chosen to obtain a measure of attitudes toward parenting is the Adult/Adolescent Parenting Inventory (Bavolek, 1978). This instrument was chosen for the reasons that it can be used with multi-level age groups, including young adolescents, and it is a predictor of those in need of acquiring appropriate parenting skills.

The A/API (Adult/Adolescent Parenting Inventory) was developed from four abusive parenting constructs identified by Bavolek (1978). A description of Bavolek's four constructs and his cited research documentation of each follows:

Construct a: inappropriate parental expectations of the child.

Bavolek (1978, p. 14) points out that beginning very early in the infant's life, abusing parents tend to inaccurately perceive the skills and abilities of their children. Moreover, the effects of inappropriate parental expectations often have a debilating impact upon the personality development of the child. To support his statements Bavolek cites Steele and Pollock's (1968) research which found that abusive parents in their study expected and demanded a great deal from their children and did so prematurely. And Bavolek cites Elkind's (1967) concept that inappropriate parental expectations are a form of parental exploitation called "ego bolstering". He further cites Martin's (1976) suggestion that when the expectations are impossible to meet, biologically and cognitively, the child perceives himself as being worthless, a failure, and unacceptable and disappointing to adults.

Construct b: inability of the parent to be empathically aware of the child's needs.

Bavolek (1978, p. 15) review of the literature indicates that not only do abusing parents have an inappropriate expectation and demand for their child's performance, but also a corresponding disregard for their child's own needs. He cites the following research to substantiate the statement (Bain, 1963; Gregg, 1968; Helen & Pollock, 1967; Hiller, 1969; Johnson & Morse, 1968; Korsch, Christean, Gozzi, & Carlson, 1965; Morris & Gold, 1963.

Citing Martin, 1976; Steele, 1975, and Steele & Pollock, 1968, Bavolek states that the lack of empathic awareness of the child's needs may result in the child failing to develop a basic sense of trust in himself and others, low sense of self-esteem, distorted sense of guilt, and a lack of self-confidence.

Construct c: role reversal.

Bavolek (1978, p.19) states that the third common parenting behavior among abusive parents is that of role reversal. In role reversal the child is expected to be sensitive to and responsible for much of the happiness of his parents. Bavolek concludes that essentially the parent acts like a needy child looking to her own child as if he (the child) were an adult who could provide parental care and comfort. The following supportive research is cited by Bavolek; Ackley, 1977; Martin, 1976; Monis and Gould, 1963; and Steele, 1975.

Construct d: strong parental belief in the value of physical punishment.

According to Bavolek (1978, pp. 17-19), closely interwoven with the inappropriate misperceptions of their child's abilities and the lack of empathic awareness of their child's needs is the abusing parent's strong belief in the value of physical punishment. He further contends that physical attacks by abusing parents are not often haphazard, uncontrolled, impulsive discharge of aggression by the parents onto the child. On the contrary, it appears that abusive parents utilize physical punishment as a unit of behavior designed to punish and correct specific bad conduct or inadequacy on the part of the

child. Further, these parents strongly defend their right to use physical force. Bavolek cites the following research to substantiate his conclusions (Davoren, 1975; Steele, 1975; Wasserman, 1967).

Bavolek cites studies that point out the effects of harsh physical punishment upon the child may lead to the development of serious violent, disturbed and/or delinquent behaviors, and the development of serious emotional disturbance. He cites the following research in this regard (Curtis, 1963; Welsh, 1978; Rallins, Ervin, and Plutchik, 1973; Gibbens and Walker, 1954; Duncan, Fraizer, and Litin, 1958; Duncan & Duncan, 1971; Easson & Steinhiber, 1961; Goode, 1971; Beckett, Robinson, Fraizer, 1956; Galdston, 1965; & Green 1978).

Summary

The theory that early parent-child interactions have a marked influence upon the future behavior of the child is reflected throughout the history of Western thought. An assumed factor from this conceptualization of human development is that effective parenting is related to the parent's knowledge of child development. There is extensive acceptance of this perspective within the discipline of child psychology, even though there has been no empirical research designed and carried out to establish whether knowledge of child development is a factor in effective parenting.

One basic reason for this lack of empirical research has been a lack of instrumentation to measure knowledge of child

development. A major contribution of this present study is the development of an instrument that will allow for the research of this factor.

Erikson's theory of human development suggests another factor of effective parenting to be the social-emotional maturity of the parenting person. The maturity factor is supported by research delineating personality characteristics that have been identified as being characteristic of ineffective parents. However, there has been limited research designed to identify the personality characteristics of effective parents.

In this chapter, knowledge of child development and social-emotional maturity as factors in parenting have been reviewed. In addition, attitudes toward parenting have been reviewed as the most appropriate means to identify behavioral intent.

CHAPTER III

GENERAL PROCEDURE

To recapitulate, this study will investigate the relation-
ship of knowledge of child development as measured by the Know-
ledge of Child Development Inventory, social-emotional maturity
as measured by the Class II Measures Of Socialization, Maturity,
Responsibility,and Intrapersonal Structuring of Values of the
California Psychological Inventory and attitudes toward parent-
ing and child rearing as measured by the Adult/Adolescent Parent-
ing Inventory.

Phase I

Phase I constitutes the development of an instrument to
measure knowledge of child development from birth to age three,
with a reading level comprehensible to adolescents.

Unavailability of an instrument that would meet the cri-
teria, necessitated the development of an instrument that would
measure knowledge of child development, be comprehensible to
adolescents as young as 13 years of age, and that would keep
technical terminology to a minimum.

In order to develop an instrument the procedure outlined
below was followed:

A) A review of child development literature, texts,
    and other sources

B) The development of the table of specifications

C) The development of the KCDI Questionnaire

1) developing an item pool of question concepts

2) developing multiple-choice test items

3) determining question readability

4) establishing the reading level

5) establishing content validity

6) obtaining an item analysis

7) determining criterion validity

8) determining reliability

Review of Child Development Literature, Texts, and Other Sources

Tinkelman (Thorndike, 1971, P. 56) suggests that one should secure a tentative list of topics to be tested and obtain some indication of the appropriate emphasis to be given to specific items after analyzing a dozen of the more widely used text books in the field. With this purpose in mind the following college text books in child development were reviewed: Smart and Smart's Children, Development and Relationships; Biehler's Child Development; Mussen, Conger and Kagen's Child Development and Personality; Jersild's Child Psychology; Munsinger, Fundamentals of Child Development; Yassen and Santrock's Child Development; Stone and Church's Childhood and Adolescence; McCandlers and Trotter's Children Behavior and Development; Papalia and Old's Human Development and Socialization. Also reviewed were the Clarke-Steward (1977) study, the most current and authoritative review of the research in child development and family interactions, and the Burton White (1973) study, the highly regarded observational study of mothering in a natural setting.

To insure appropriate content and reading level for adol-
escents, a review of widely used high school text books in
child development was carried out including the following:
Katherine Read Baker's Understanding and Guiding Your Chil-
dren; Holly E. Brisbane's The Developing Child; Helen Gurn
Westlake's Children A Study of Individual Behavior; Elizabeth
B. Hurlock's Child Growth and Development; Louise Bates Ames'
Child Care and Development; and Draper and Draper's Caring
For Children.

In addition, the following materials were reviewed:
curriculum materials for the federally sponsored "Education
for Parenthood Program" including the government review of
the program (Morris, L.A., 1977), the curriculum for "Foot-
steps" the Public Broadcasting Service series on parenting,
the Parent Magazine filmstrip series, "How An Average Child
Behaves - From Birth to Age Five," and "The First 18 Months;
From Infant To Toddler", the Systematic Training for Effec-
tive Parenting (STEP) Program and Parent Effectiveness Train-
ing (P.E.T.) program.

Further, books written for the general public on parent-
ing and child development were reviewed, including White's
The First Three Years of Life; Brazelton's Infants and Mothers;
Brazelton's Toddlers and Parents; Fraiberg's The Magic Years;
Smart and Smart's Preschool Children; Rocum Press' Child Care;
Salk's Your Child from 1 to 12; Salk's What Every Child Would
Like His Parents To Know; Bettelheim's Dialogues With Mothers;

Graubard's Positive Parenthood; Norton's Parenting; Becker's
Parents Are Teachers; Ilg and Ame's Child Behavior; LeShaw's
On "How Do Your Children Grow"; Caplan's The First Twelve
Months of Life; Beck's How to Raise A Brighter Child; Dobson's
How to Parent; and Gordon's Parent Effectiveness Training.

Development of the Table of Specifications

The data obtained from the review of text books and
other pertinent sources was organized into a table of spec-
ifications (Table 1). Guidelines set forth by Nunnally (1972)
were utilized. He suggests that content validity will be
served to the extent that test items adequately sample the
subject matter of a particular area of knowledge, and that
by developing test items from a table of specifications, the
test will closely represent the curriculum content outlined
for a particular area of knowledge. The materials reviewed
above were examined with this in mind.

The field of child development is often broken down into
the four basic areas of emotional, cognitive, physical, and
social development. The table of specifications (Table 1)
is reflective of this. Each of the four basic areas is out-
lined separately. The subheadings within the emotional area
are reflective of the Erikson psychological perspective. The
sub-headings for the remaining three areas were selected on
the basis of item frequency and weight (lines per source) in
the listed sources.

TABLE 1

TABLE OF SPECIFICATIONS OF THE KCDI

Content Area	Weight Per Area	Weight per Item	Know-ledge	Under-standing	Appli-cation	No. of Items
EMOTIONAL DEVELOPMENT	25%					
Trust vs. Mistrust		5.4%	X	X	X	3
Autonomy vs. Shame		9.0%	X	XX	XX	5
Fear of Strangers		1.8%			X	1
Attachment		3.6%		X	X	2
Typical Emotions		5.4%	X	XX		3
COGNITIVE DEVELOPMENT	25%					
Newborn Behaviors		3.6%	XX			2
Exploration		5.4%	X	X	X	3
Visual		7.6%	X	X		2
Language		5.4%	X	X	X	3
Adult/Child Interactions		7.2%	X	XX	X	4
PHYSICAL DEVELOPMENT	25%					
Newborn Behaviors		7.2%	XXXX			4
Bodily Functions		10.8%	X	XXXX	X	6
Safety		5.4%	X	X	X	3
Handedness		1.8%		X		1
SOCIAL DEVELOPMENT	25%					
Smiling		3.6%	X	X		2
Genital Exploration		1.8%		X		1
Aggression		3.6%		XX		2
Toilet Training		3.6%		XX		2
Play		3.6%		XX		2
Development of Self-control		9.0%	X	XX	XX	5
TOTALS	100%	100%	17	27	12	56

Development of the KCDI Questionnaire

Item pool of question concepts.

Initially an item pool of over 120 question concepts was generated, consisting of approximately 30 question concepts per basic area of emotional, cognitive, physical, and social development. The second and third editions of the instructor's manuals to accompany Smart and Smart's text Children, Development and Relationships provided a comprehensive, authoritative source of questions extensively outlining child development. Many of the question concepts were selected from this source for the item pool.

From the original item pool, fifty-six (56) question concepts were selected. Fourteen (14) were taken from each of the four basic areas as representations of the most appropriate landmarks in child development from birth through three years of age.

Developing multiple choice test items.

The fifty-six (56) question concepts were then developed into multiple-choice questions in accordance with the suggestions for construction of multiple-choice test items deveised by Gronlund (1971, pp. 183-193) and Nunnally (1972, pp. 172-181.)

Some of the multiple-choice test items were developed from the question concepts taken from the instructor's manuals to accompany the text, Children, Development and Relationships. Permission to utilize the adapted question concepts was sought and obtained from the Smarts, Linda Blood, the developer of the manuals and the Macmillan Publishing Company, the publisher

of the manuals. Upon the review of the proposed instrument and subsequent recommendations of Dr. Russell C. Smart, a number of the questions were further refined to reduce the technical terminology, making the questions more comprehensible to individuals who have not studied a course in child development.

Determining question readability.

Three separate preliminary administrations of the test items were conducted to determine subject understanding of the questions and test readability. The groups selected for this review process were 1) a small sample of high school students (five), 2) the staff (five members) of an infant stimulation program, and 3) a group of masters degree candidates (seven students) in Early Childhood/Special Education. The review process was conducted in the following manner for each of the three groups: Upon completion of the testing, group members reviewed each test item for question stem clarity and the appropriateness of the questions' response options. As a result of the review process, a number of the test items were improved.

Establishing the reading level.

A copy of the Knowledge of Child Development Inventory (KCDI), the instrument developed for measuring knowledge of child development from birth to age three, is located in Appendix A. The reading level of the KCDI, determined by the Fry Reading Index, is 8.0 grade level.

Establishing content validity.

Content validity was obtained through an expert review of the instrument. The experts were requested to focus on (A)

item construction, i.e., each item's readability and form and (B) completeness of question coverage, i.e., do the questions adequately cover each of the four basic areas of emotional, cognitive, physical and social development.

A scale with a four point selection range of excellent, good, adequate, and poor was utilized for the expert review (a copy of which is located in Appendix B).

For the item construction criteria the composite average of the five experts ranged from .60 to 1.00 rating of excel‑ lent, good or adequate on the 56 items that make up the KCDI. A 1.00 composite rating was received by 37 of the items, .80 rating for 13 of the items and .60 for 6 of the items. The completeness of question coverage criteria received a 1.00 composite rating of excellent, good, or adequate by the ex‑ pert reviewers.

Obtaining an item analysis.

Twenty-four (24) Masters degree candidates in Early Child‑ hood/Special Education from Chicago State University were util‑ ized in an item analysis of the KCDI. The item difficulty is reported separately for each of the four areas of development (Appendix C). For emotional development the item difficulty ranges from 1.00 to .44 with a mean difficulty level of .79; for cognitive development the range is from 1.00 to .28 with a mean difficulty level of .75; physical development item difficulty level range from 1.00 to .20 with a mean of .65; for social development the range is from 1.00 to .36 with a mean difficulty range of .75.

Determining criterion validity.

Criterion validity was obtained utilizing the Pearson Product-Moment Formula to compare scores on the KCDI with scores on true-false test questions from the instructor's manual to accompany Smart and Smart's text, Children, Development and Relationships. Scores from twenty-four (24) Masters degree candidates in Early Childhood/Special Education from Chicago State University indicate a .80 correlation between the 56 item KCDI and the 83 item criterion measure. The raw data are located in Appendix D.

Determining reliability.

Coefficient alpha (Nunnally, 1967), a basic formula used for determining the reliability of an instrument based on the internal consistency of items, was utilized. Coefficient alpha sets an upper limit of reliability based on the average correlation among the items. The higher the items correlate with one another, the higher the reliability. The obtained reliability of internal consistency of items is .93. The raw data are located in Appendix E.

Phase II

Phase II constitutes the experimental phase of the project. As stated in an earlier section, the problem under investigation in this study is as follows: Are knowledge of child development and social-emotional maturity interactive variables which affect the development of parenting attitudes:

Sample

The sample consisted of a total of 434 participants. Subjects were drawn from three south suburban Chicago high schools: Crete-Monee, Homewood-Flossmoor, and Rich East; from one south suburban junior high school: Crete-Monee; from two suburban Chicago colleges: Morraine Valley College and Prairie State College; and one Chicago university: Chicago State University. All subjects, with the exception of the junior high school group, were involved in a child development course at the time of the study. The descriptions of the sample given below are summarized in Table 2.

Demographic information was obtained in the following categories: sex, age, racial background, two parent family, siblings and birth order. All of the four hundred and thirty four (434) participants were female. The subjects ages were as follows: one hundred and fifty one (151) subjects were between 13 and 14 years of age; ninety four (94) participants were between 15 and 17 years of age; ninety four (94) participants were between 18 and 22 years of age and ninety five (95)

TABLE 2

DEMOGRAPHIC DATA

	13-14			15-17			18-22			23+			Totals		
Age / Number	151			94			94			94			434		
Racial Background* (W / B / S)	139	0	12	92	2	0	70	23	1	40	53	2	341	78	15
2 Parent Family	37			18			13			20			88		
Siblings (none / 1-3 / 3+)	6	120	25	2	68	24	2	54	38	5	54	36	15	296	123
Birth Order* (only / Y / M / O)	6	59	44/39	2	34	44/14	2	30	45/17	5	17	49/24	15	143	182/99
H.S. Child Dev.	1			72			65			13			151		
Col. Child Dev.	0			0			67			95			162		
Parent Training	0			0			7			19			26		
Children (# of / under 4 / 2+)	0	0	0	0	0	0	9	9	0	52	15	19	61	24	19
Babysitting Experience* (none / nu4 / inf / fre)	9/11	52	79	3/17	17	57	0/5	20	69	8/6	21	60	20/39	110	265

* White, Black, Spanish
* Only, youngest, middle, oldest
* None, none under 4, infrequent, frequent

49

subjects were 23 years of age or older. The racial background

of the sample was as follows: three hundred and forty one (341)

White; seventy eight (78) Black; and fifteen (15) of Spanish

background. Eighty eight (88) of the 434 subjects did not

live with both of their parents while they were growing up;

the remaining three hundred and forty six (346) lived with

both parents. Fifteen of the participants did not have any

siblings, two hundred and ninety six (296) participants had

at least one sibling but no more than 3, and one hundred and

twenty three (123) of the participants had more than 3 siblings.

Fifteen of the subjects were only children, one hundred and

eighty two (182) were middle children and ninety four (94)

were the oldest in their family.

Data were obtained to determine the subjects' training

and experience with young children in following categories:

high school course work in child development; college course

work in child development; participation in parent training;

parenting; and babysitting experience. One hundred and fifty-

one (151) of the participants had taken a high school level

course in child development. Seventy-three (73) of the sub-

jects were taking a child development course at the time they

participated in this study. Seventy eight (78) of the sub-

jects had taken a child development course when they were

in high school. One hundred and sixty-two (162) of the par-

ticipants were taking a course in child development at the

college level at the time they participated in this study.

Only twenty-six (26) of the subjects had participated in any

type of parent training. Sixty-one (61) of the participants had children, twenty-four (24) of these had children under 4, and nineteen (19) of the participants had more than 2 children. Only twenty (20) of the 434 subjects reported no experiences as a baby sitter; thirty-nine (39) reported no baby sitting experience with children under 4 years of age; one hundred and ten (110) reported infrequent baby-sitting experience with children under four; and two hundred and sixty-five (265) reported frequent experience baby sitting with children under 4 years of age.

Procedure

In each of the separate locations, the testing was conducted in the same manner. The subjects were in classes of 20 to 30 students. In each of the classes, an explanation of the study and assurance of anonymity was given. Students were then asked to volunteer if they desired to participate in the study. Those who choose to participate were requested to sign a consent form. In addition the participants from junior high school and high school were required to have their consent forms signed by a parent. A signed permission slip was mandatory for their participation in the project. A copy of the consent form and accompanying cover letter to parents is located in Appendix F.

Following this procedure the testing for the research study was conducted. Three separate sessions of one hour each were needed. During the first one hour session, the participants completed a one page information sheet (appen-

dix G) detailing their family background. Next the participants took the Adolescent Parenting Inventory which is the attitude measure. The second one hour session was devoted to the California Psychological Inventory which was utilized in this study as the social-emotional maturity measure. During the final one hour session, the Knowledge of Child Development Inventory, the child development measure was administered. All directions and test items were read aloud to the subjects by the researcher to provide continuity, to maintain control for differing reading abilities, and to encourage the subject to stay on task throughout the study.

Instrumentation

Three testing instruments were utilized: (1) a measure of knowledge of child development, (2) a measure of social-emotional maturity and (3) a measure of parenting and child rearing attitudes.

Knowledge of child development measure.

An instrument was designed specifically for this study to test knowledge of child development as indicated in Phase I of this section. The instrument is entitled, Knowledge of Child Development Inventory (KCDI). A copy of the instrument is located in Appendix A. The 56 item multiple choice test consists of four sections. The four sections are: emotional development, cognitive development, physical development, and social development. Each section has 14 questions. The questions pertain to child development from birth to age three. The instrument has a reading level of 8.0 (Fry Reading Index).

Content validity was obtained through the use of a table of specifications developed from the current knowledge of child development and an expert review of the instrument (see Phase I of this section).

Criterion validity of .83 was obtained from 24 graduate students in Early childhood/Special Education through a comparison of scores on the KCDI and chapter tests from the manual of Smart and Smart's textbook, Children, Development and Relationships.

Reliability of .93 was obtained using Cronbach's alpha coefficient of internal consistency. This formula is used for determining the reliability of an instrument based on the internal consistency of all of the items.

Social-emotional maturity measure.

The California Psychological Inventory (CPI) is a personality assessment instrument. The inventory is intended to be used primarily with "normal" (non-psychiatrically disturbed) subjects. Its scales are addressed to personality characteristics considered important for every day social living and interaction (Gough, 1975). Testing time for the entire inventory, which consists of 480 items, usually takes from 45 minutes to one hour, according to the manual. A true-false response format is utilized. The inventory has been used in research testing groups with participants as young as twelve years of age. The manual states that item difficulty is not an issue with high school age subjects.

The California Psychological Inventory is one of the principal personality instruments in use today. Kelly (1965 P. 168) in a review in the Sixth Mental Measurement Yearbook, hails the CPI as one of the best, if not the best available instrument of its kind. Kleinmuntz (1967, p. 239) states, "The CPI is already well on its way to becoming one of the best, if not the best personality-measuring instrument of its kind." Anastasi (1968 p. 448) agrees with these assessments of the CPI and adds that "its technical development is of a high order, and it has been subjected to extensive research and continuous improvement."

The California Psychological Inventory includes 18 standard scales which are grouped for convenience into four broad categories bringing together those having related implications. For the purpose of this study, the six scales of the broad category of Class II Measures of the Socialization, Maturity, Responsibility and Intrapersonal Structuring of Values, were utilized. The first four scales: responsibility, socialization, self-control, and tolerance were designed as trait measures. The remaining two scales within the Class II scales: Good Impression and Communality, were designed as validity scales for the instrument itself. The Good Impression (Gi) scale is designed to identify exaggerated attempts of the testee to place herself in a favorable light. Very high scores on this scale are an indication of the possibility of test faking. The Communality (Cm) scale score is an indication of the care and conscientiousness with which the individual has approached the test. When the score falls very

low, the strong possibility is raised that the individual's answers have been given in some random or unmeaningful way. The Good Impression scale has 42 items and test-retest reliability of .68, and the communality scale has 28 items and test-retest <u>reliability</u> of .44.

The total number of items for the four trait scales is 178: 42 from the responsibility scale, 54 from the socialization scale, 50 from the self-control scale, 32 from the tolerance scale. Test-retest <u>reliability</u> scores obtained from high school courses indicate the following correlations for the six scales; responsibility, .73; socialization, .69; self-control, .68; tolerance, .61. Validity of each scale of the CPI has been obtained individually. The validity measures have received criticism; Burkhart (Burros, 1978) states the same studies reported by the CPI Manual 20 years ago are still being reported today even though the instrument has been used extensively since then. Validity for the four scales as follows:

The Responsibility (Re) measure in two assessment samples correlated + .38 with staff ratings of "positive character integration." In five high school senior classes where the CPI was administered, principles ratings of the "most" and "least" responsible students ratings correlated as follows with the Re measure:

	N	M	SD
Most responsible females	51	33.54	4.20
Least responsible females	51	25.84	5.40

diff = 7.70   C.R. = 804

$P < .01$

When principles were asked to name the "best citizens" and "disciplinary problems students' their ratings correlated as follows with the So - socialization scale:

	N	M	SD
Female "best citizen"	51	41.51	4.56
Female "disciplinary problems"	51	34.79	7.00

diff. = 6.72   C.R. = 7.55
P < .01

The method of documenting the validity of the Socialization (So) scale was to list in rank order all of the samples for which So scores are available. The psychometric continuum thus established was then reviewed to determine whether or not it also constitutes a sociological continuum. Samples with higher So scores should tend to be "more socialized" and those with lower scores "less Socialized."

Female Samples:

		N	M	SD
1.	High School "best citizens"	90	41.51	4.55
2.	High school students	5,295	39.69	5.57
3.	College students	3,452	39.37	5.05
4.	Factory workers	291	38.99	4.76
5.	Nurses	142	38.24	4.89
6.	Airline hostesses	60	38.07	4.51
7.	Social work graduate students	320	37.99	4.38
8.	Psychology graduate students	37	36.65	3.59
9.	High school"disciplinary problems	87	34.79	7.00
10.	Unmarried mothers	213	32.92	6.24
11.	County jail inmates	51	29.61	5.86
12.	Prison inmates, Indiana	127	28.37	6.24
13.	Prison inmates, California	135	28.36	5.68
14.	Prison inmates, Wisconsin	76	26.83	7.04
15.	Youth authority cases, Calif.	47	25.79	5.30
	Total, samples 1-8	9,687	39.48	5.33
	Total, samples 9-15	736	30.21	6.92

diff. = 9.27 C.R.=11.24
P < .01
6 = .76

In an assessment sample of 51 female college seniors, self-control (Sc) correlated = .34 with the interviewers' Q-sorting of the phrase, "patient and self-controlled; restrained and self-contained in behavior." In addition, in five high schools where the CPI was administered, principals' ratings of the "least" and "most" impulsive students correlated as follows with the Sc measure;

	N	M	SD
Lease impulsive girls	47	32.81	7.99
Most impulsive girls	40	26.12	7.59

diff. = 6.69 C.R.= 4.22
P < .01

In a sample of 419 college students, the tolerance (To) correlated = .48 with the California F. Scale.

In a sample of 152 adults, Good Impression (Gi) correlated + .60 with K (correction) scale from the Minnesota Multiphasic Personality Inventory. In a second sample a class of 179 high school students was asked to respond to the items so as to present "the best possible impression" of oneself. The Gi scale statistics for this group and for an unselected sample of high school students are shown below.

Sample

	N	M	SD
Students asked to dissimulate	179	23.87	8.48
High school students	7,628	15.37	6.20

diff.=8.50 C.R. = 13.33
P < .01

In an assessment sample of 100 military officers Communality (Cm) correlated +..28 with the staff's composite Q-sorting of the phrase "Is dependable and practical; has common sense and good judgment," and - .32 with the phrase "Is at odds with

himself, has major internal conflicts."

A sample copy of the inventory is located in Appendix H.

Attitudes toward parenting measure.

The Adult/Adolescent Parenting Inventory (A/API) developed by Stephen J. Bavolek, was utilized to obtain a measure of parenting and child rearing attitudes. The A/API was specifically developed to assess the child rearing and parenting attitudes of adolescents and adults. It identifies those adolescents and adults who are "high risk," that is, those in need of acquiring appropriate child rearing and parenting skills.

The Adult/Adolescent Parenting Inventory consists of 32 items. Respondents respond on a five choice rating scale ranging from strongly agree to strongly disagree. The items were developed from the following four abusive parenting constructs: (A) inappropriate parental expectations of the child, (B) inability of the parent to be empathically aware of the child's needs, (C) strong parental belief in the value of punishment and (D) role reversal.

Coefficient alpha reliability for internal consistency indicates Construct D has the highest reliability (.82) among the four constructs and Construct A has the lowest internal reliability (.70). Test-retest reliability of the items indicates Construct B has the highest test-retest reliability (.89) and Construct A has the lowest reliability (.39) among the four constructs. The total test-retest reliability of all items is .76.

The construct validity utilizing inter/item correlations within each construct range from .17 to .55 with the majority of the correlations at .25, and the item-construct range from .53 to .75.

A sample copy of the inventory is in Appendix I.

Data Analysis

The nature of this study is essentially correlational. The combined effects of knowledge of child development and social-emotional maturity, and the effects of this relationship upon attitudes toward parenting was investigated.

Mean scores and standard deviation scores.

The raw data were scanned for irregularities. Then the data was reviewed for extreme scores on the CPI validity scales Gi and Cm. Following this procedure mean scores for each of the three vairables (knowledge of child development, social-emotional maturity, and attitudes toward parenting) were established. Normative data established for the California Psychological Inventory (CPI) were utilized for the social-emotional maturity variable (Table 3).

Bavolek (1978) suggests that mean scores and standard deviation scores be established with the specific population sample being investigated when the Adult/Adolescent Parenting Inventory is used. This procedure was followed to establish the mean score and standard deviation score for the attitudes toward parenting variable for each of the four separate components within the Adult/Adolescent Parenting Inventory, i.e., (1) inappropriate parental expectations of the child, (2) inability of the parent to be empathically aware of the child's

TABLE 3

MEAN SCORES AND STANDARD DEVIATION SCORES

	Mean Scores	Standard Deviation Score
Knowledge of Child Development Inventory	37.8	6.0
Adult/Adolescent Parent Inventory		
1)	24.9	3.1
2)	29.6	5.6
3)	27.4	5.7
4)	35.2	6.4
California Psychological Inventory		
Responsibility	32.1	4.8
Socialization	39.5	5.3
Self-control	32.0	7.2
Tolerance	32.0	4.3

needs, (3) strong parental belief in the value of punishment, and (4) role reversal.

The mean score and standard deviation score for the sample population were calculated, as this was the initial utilization of the Knowledge of Child Development Inventory.

Procedures for testing the null hypotheses.

Next, the null hypotheses were analyzed in the following manner.

Hypothesis 1:   There is no significant relationship between subjects' knowledge of child development scores as measured by the KCDI and the subjects' respective parenting attitude scores as measured by the A/API. Multiple regression (stepwise) analysis was utilized to compare the KCDI total scores with A/API subscores (4)

Hypothesis 2:   There is no significant relationship between subjects' social-emotional maturity scores as measured by selected scales of the CPI and the subjects' respective parenting attitude scores as measured by the A/API. Canonical correlation analysis was utilized to compare the CPI subscores (4) with the A/API subscores (4)

Hypothesis 3:   There is no significant relationship between subjects' knowledge of child development scores as measured by the KCDI and the subjects' respective social-emotional maturity scores as measured by

selected scales of the CPI. Multiple regression
(stepwise) analysis was utilized to compare KCDI
total scores with CPI subscores (4).

Hypothesis 4:   There is no significant relationship between
subjects' knowledge of child development total scores
as measured by the KCDI, subjects' social-emotional
maturity scores as measured by selected scales of
the CPI, and the subjects' respective parenting
attitude scores as measured by the A/API. Canon-
ical correlation analysis was utilized to compare
the subjects' KCDI total scores and CPI subscores
(4) with subjects' respective A/API subscores (4).

Summary

This study is designed to investigate the hypothesis that
knowledge of child development and social emotional maturity are
interactive variables which affect the development of parenting
attitudes.

It was first necessary to construct an instrument to mea-
sure knowledge of child development, because there was no instru-
ment available that was comprehensible to adolescents as young
as thirteen years of age. The Knowledge of Child Development
Inventory was designed with a reading level appropriate for
adolescents (Appendix A). The reliability (.93) and validity
(.80) information has been presented in Phase I of this section.

The participants in the experimental phase of this study
were 434 female students, all of whom were involved in a course
in child development except for the youngest group which con-

sisted of junior high school adolescents.

The participants were tested for knowledge of child development, social-emotional maturity, and attitudes towards parenting utilizing the Knowledge of Child Development Inventory, the California Psychological Inventory, and the Adult/Adolescent Inventory respectively. All testing was carried out in the same manner by the investigator. Three sessions of approximately one hour per session were utilized to collect the data.

Upon completion of the data collection, multiple regression and canonical correlation techniques were utilized to analyze the data.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF THE DATA

This study was designed to investigate the effects of
knowledge of child development and social-emotional maturity
on attitudes toward parenting. The statistical hypotheses,
stated in null form, postulated no significant relationships
between attitudes toward parenting and knowledge of child de-
velopment and social-emotional maturity. This chapter is con-
cerned with the presentation and analysis of the statistical
results of the data. First, the screening of the data for
errors is discussed. Next, the CPI scores are discussed in
regard to the instrument's validity scales. Then, each of the
four hypotheses is presented separately.

Screening of the Data

Initially, the data were screened for errors and the in-
complete or inaccurate data were eliminated prior to the sta-
tistical analysis. Errors that necessitated exclusion were
mistakes by the respondents in filling out items and/or fail-
ure of the respondents to complete sections of the question-
naires. Four hundred and thirty-four (434) subjects' data
remained after this procedure.

A second step prior to statistical analysis of the data
was to review the CPI data in regard to the instruments inter-
nal validity scales: Good Impression and Communality. The

Good Impression scale was designed to identify exaggerated attempts of the testee to place herself in a favorable light. The highest five (5) scores on this scale were : two (2) subjects with a standard score of 60, two (2) subjects with a standard score of 63; and one (1) subject with a standard score of 68. CPI normative data did not indicate that these scores were extreme enough to eliminate the subjects' data from analysis.

The Communality scale was designed to identify random or unmeaningful responses by the testee. Although twelve (12) subjects' scores on the Communality scale were somewhat suspect (between standard scores of 10 to 15) they were not excluded from the data analysis for several reasons. First, the twelve scores were from subjects under twenty years of age and adolescents are expected to score somewhat lower in maturity factors. Second, twelve scores in a sample of 434 scores were not judged to be statistically significant to the extent that it would warrant exclusion.

Analysis Of The Hypotheses

Following the screening of the data, the hypotheses were analyzed. Hypotheses one and three were analyzed by multiple regression and hypotheses two and four were analyzed by canonical correlation. Table 4 gives the mnemonics labels and corresponding variable descriptions for hypotheses.

Hypothesis 1

The first hypothesis concerned the relationship between attitudes toward parenting and knowledge of child development.

TABLE 4

VARIABLE LABELS FOR THE HYPOTHESES

Mnemonic Label	Variable Description
A/API	Adult/Adolescent Parenting Inventory
EX	A/API Expectations Scale
EA	A/API Empathic Awareness Scale
RR	A/API Role Reversal Scale
PP	A/API Physical Punishment Scale
CPI	California Psychological Inventory
Re	CPI Responsibility Scale
So	CPI Socialization Scale
Sc	CPI Self Control Scale
To	CPI Tolerance Scale
KCDI	Knowledge of Child Development Inventory
AGE	Age
HSCD	High School Child Development Course
CCD	College Child Development Course
PARG	Parent Group
BABS	Babysitting Experience
2 PAR	Two Parent Family
SIBS	Siblings
BIRO	Birth Order
CHILD	Children
CHU 4	Children Under Four

It was stated as follows: There is no significant relation-
ship between subjects' knowledge of child development scores
as measured by the KCDI and the subjects' respective parenting
attitude scores as measured by the A/API. Multiple regression
(stepwise) analysis was employed to test hypothesis one. Mul-
tiple regression is a method of analyzing the joint and separate
contributions of two or more independent variables (called pre-
dictors) to the variation of a dependent variable (called criter-
ion). The technique can demonstrate which imput factors seem to
have the greatest influence on the criterion.

Results.

Table 5 illustrates that the F-test (F=48.82; df=4,430) is
significant at the .001 level of probability. The empathic aware-
ness scale has the highest correlation with the knowledge of child
development variable (.53) and is the most significant contributor
to the regression equation accounting for 28% of the variation. In
addition, the beta weight of the emphathic awareness subscale was
.40, more than twice as significant as the next highest subscale
(.19). Two other subscales measuring the A/API factor are signifi-
cantly correlated and appear to be significant contributors to the
regression equation: the physical punishment scale (.42) and the
role reversal scale (.36) accounting for 4% and 1% of the vari-
ation respectively. The total amount of variation accounted for
between the two factors was 33% (28% + 4% = 1%).

Interpretation and discussion.

This multiple regression correlation suggests a relationship
between subjects' possessing knowledge of child development and

TABLE 5

REGRESSION OF THE KCDI WITH THE A/API

Variable	Beta	Simple r	RSQ change	F
EA	.40	.53	.28	166.18
PP	.19	.42	.04	99.80
RR	.14	.36	.01	70.29
EX	-.04	.20	.001	52.83

Multiple R = .56

R^2 = .31

Overall F = 48.82; df = 4,430; p .001

having parenting attitudes characterized by empathic awareness
of the needs of children. To a lesser degree the multiple re-
gression suggests a relationship between the subjects' knowledge
of child development and two other variables; not believing in
the use of physical punishment to punish or correct misconduct
or inadequacy on the part of the child and not expecting the child
to meet adult needs rather than vice versa. The results indicate
a definite relationship between subjects' knowledge of child de-
velopment and positive attitudes toward parenting, i.e., the more
knowledge of child development the subject possesses, the better
the individual's attitudes toward parenting. These findings sup-
port the contention of this study that there is a relationship
between knowledge of child development and attitudes toward par-
enting.

Associated demographic characteristics.

Table 6 illustrates the correlations between selected demo-
graphic characteristics with the KCDI and A/API variables. Age
had the highest correlation, correlating with the KCDI = .35,
EA = .38, RR = .31 and PP = .27. It appears that the older the
subject the more knowledge of child development she possesses
and the more appropriate her attitudes toward parenting. In
addition not having taken a course in child development in
college or, to a lesser degree in high school, also appear
to be significantly correlated with the hypothesis. The CCD
correlated with the KCDI and A/API scales to the following
extent: KCDI = -.25, EA = -.34, RR = -.27 and PP = -.20.
The HSCD correlated with the KCDI = -.23, EA = -.13, PP = -.20.

TABLE 6

BIVARIATE CORRELATIONS FOR HYPOTHESIS 1

	AGE	HSCD	CCD	PARG	BABS	2PAR	SIBS	BIRO	CHILD	CHU4	KCDI	EX	EA	RR	PP
AGE	1.00	.04	-.07	-.03	.06	.10	.12	.11	-.45	-.10	.35	.05	.38	.31	.27
HSCD		1.00	.01	.04	-.01	.09	.09	.13	.01	.07	-.23	-.09	-.13	-.07	-.20
CCD			1.00	.11	.02	-.02	.05	-.08	.38	.16	-.25	-.04	-.34	-.27	-.20
PARG				1.00	-.62	.06	-.11	.04	.10	.02	-.07	-.06	-.07	-.11	-.11
BABS					1.00	-.08	.07	.03	.02	-.02	-.01	-.01	.01	.02	.03
2PAR						1.00	.03	-.01	-.05	.02	-.02	-.03	-.05	.03	-.02
SIBS							1.00	.30	.09	-.14	-.02	.09	.02	.10	.04
BIRD								1.00	-.03	.08	.06	.05	.03	.07	.02
CHILD									1.00	.24	-.25	-.06	-.20	-.04	-.03
CHU 4										1.00	.15	.07	.01	.02	-.09
KCDI											1.00	.21	.53	.36	.42
EX												1.00	.33	.38	.30
EA													1.00	.39	.47
RR														1.00	.42
PP															1.00

Finally, not having children appears to be negatively corre-
lated with the first hypothesis. The CHILD demographic char-
acteristic correlated with the KCDI = -.25, EA = -.20 and RR
= -.14.

Hypothesis 2

The second statistical hypothesis concerned the relation-
ship between social-emotional maturity and attitudes toward
parenting. It was stated as follows: There is no significant
relationship between subjects' social-emotional maturity scores
as measured by selected scales of the CPI and the subjects' re-
spective parenting attitudes scores as measured by the A/API.

Hypothesis two, the relationship between four scales of the
CPI and four scales of A/API was tested by employing canonical
correlation analysis. As multiple correlation is a generaliz-
ation of simple correlation, canonical correlation is a general-
ization of multiple correlation. Canonical correlation allows
for the investigation of combinations of dependent variables
related to a combination of independent variables. In this
hypothesis the dependent variables were attitudes toward par-
enting and the independent variables were social emotional
maturity characteristics.

The basic aim of canonical correlation is to derive a
linear combination from each set of variables in such a way
that the correlation between the two linear combinations is
maximized. Unlike factor analysis where the primary object is
to account for as much variance as possible within the variables,
the aim of canonical correlation is to account for a maximum

amount of the relationship between two sets of variables (Nie, 1975), i.e., in this study relationships between attitudes toward parenting and social-emotional maturity characteristics.

Table 7 indicates the first three canonical correlations are significant (r - .58, .20, .03; probabilities less than 0.000, .001, .04 respectively). The eigen values being .33 for the first, .04 for the second, and .02 for the third. The total amount of variation accounted for by the three canonicals was 39% (33% + 4% + 2%).

Results of canonical 1.

Examining the variables correlated within the first canonical correlation indicates that the first variate set, the EA variable contributed to the greatest extent (- .77) with the RR (- .28), and PP (- .21), contributing but to lesser degrees. Associated with this canonical variate set are the Re = - .44, To = - .39, So = - .33, and Sc = - .14 from the second variate set.

Interpretation and discussion of canonical 1.

The first pair of canonical variates appear to identify subjects whose scores portray negative parenting attitudes that are characterized by a lack of empathic awareness for the needs of children, who expect the child to meet the adults' needs for care and comfort rather than vice versa, and who believe that if a child misbehaves or displays inadequacy one should use physical punishment to punish and correct the child.

TABLE 7

CANONICAL CORRELATIONS OF HYPOTHESIS 2

First Variable Set	First Canonical Variate	Second Canonical Variate	Third Canonical Variate
EX	.10	.56	.89
EA	-.77	-.31	-.19
RR	-.28	-.72	.38
PP	-.21	.88	-.50

Second Variable Set			
Re	-.44	-.41	.65
So	-.33	1.16	.13
Sc	-.14	-.68	.29
To	-.39	-.003	-.10

Canonical Correlations	Eigenvalue	Wilks Lambda	ChiSquare	D.F	Significance Level
1. .58	.33	.62	202.02	16	0.000
2. .20	.02	.93	28.97	9	0.001
3. .13	.02	.97	10.10	4	0.039
4. .07	.004	.99	1.92	1	0.166

These parenting attitudes are associated with a social-emotional maturity level low in a sense of responsibility, tolerance, socialization, and self-control. What emerges is a personality profile characteristic of an individual who is immature, overly influenced by personal bias, lacks impulse control, distrustful, aloof, judgmental, demanding, resentful, undependable, irritable, aggressive, self-centered, and concerned with personal pleasure and self-gain. This canonical correlation appears to indicate a definite relationship between subjects' inadequate attitudes toward parenting and a low level of social-emotional maturity.

Results of canonical 2.

The second canonical correlation (Table 7) indicates that in the first variate composite the variates contribute in the following manner: PP = .88, RR =-.72, EX = .56, and EA = -.31. Within the second variate composite the variables contribute in the following manner: So = 1.16, Sc = -.68, Re = -.41 and To = -.003.

Interpretation and discussion of canonical 2.

This second canonical correlation suggests a separate group of subjects from the first canonical correlation. The second canonical correlation reveals subjects with conflicting parenting attitudes and both high and low levels of social-emotional maturity. On the positive side, these subjects disclose attitudes that are against the use of physical punishment as a parenting methodology and attitudes that indicate appropriate expectations of children. These positive

attitudes are associated with a strong sense of socialization in the second variate composite. On the negative side, these subjects disclose attitudes that indicate a belief in role reversal, i.e., expecting children to meet their needs; and they also disclose attitudes that indicate limited empathic awareness of the needs of children. These negative attitudes are associated with lack of self control and a sense of responsibility in the second variate composite.

What emerges from this canonical is a personality profile which is characteristic of an individual who; on the positive side; is industrious, obliging, sincere, steady, conscientious, responsible, and self-denying. These positive personality characteristics are associated with parenting attitudes that are against the use of physical punishment to punish or correct misconduct or inadequacy on the part of the child and attitudes that indicate appropriate expectations of child.

What emerges on the negative side is that the individual discloses personality characteristics of impulsiveness, irritability, self-centeredness, aggressiveness, and an over emphasis on personal pleasure and self-gain. In addition, the individual is immature, is influenced by personal bias and is undercontrolled. These negative personality characteristics are associated with parenting attitudes that indicate a lack of empathic awareness of the needs of children and an expectation of the child to care for and comfort parents rather than vice versa.

This canonical correlation appears to identify subjects who have conflicting attitudes toward parenting and uneven levels of social-emotional maturity. The positive attitudes are correlated with social-emotional maturity characteristics at a high level, and the negative attitudes are correlated with social-emotional maturity characteristics at a low level.

Results of canonical 3.

The third canonical correlation (Table 7), the least significant of the three, indicates that within the first variate set the variables contribute in the following manner: EX = .89, PP = -.59, RR = .38, and EA = .19. Within the second variate set the variables contribute in the following manner: Re = .65, Sc = .29, So = .13, and To = -.10.

Interpretation and discussion of canonical 3.

The third canonical correlation suggests a third group of subjects. These subjects reveal the following parenting attitudes: appropriate expectations of children, opposition to role reversal, believe in the use of physical punishment as a parenting methodology and, to a lesser degree, a lack of empathic awareness of children's needs. These attitude variables are associated with the following social-emotional maturity variables in the second variable set: a strong sense of responsibility, and to a lesser degree, a high level of self-control, socialization, and a lack of tolerance.

What emerges from this canonical is a personality profile which is characteristic of an individual who on the positive side is responsible, conscientious, dependable,

resourceful, efficient, self-denying, calm, patient, thought-
ful, and industrious. These positive personality character-
istics are associated with parenting attitudes that indicate
appropriate expectations of children and believe it is the
parents role to care and comfort children and not vice versa.
On the negative side, the individual discloses personality
characteristics of being impulsive, irritable, self-centered,
aggressive and overly concerned with personal pleasure and
self-gain. These negative personality characteristics are
associated with the following parenting attitudes: a belief
in the use of physical punishment to punish or correct mis-
behavior or inadequacy on the part of the child and limited
empathic awareness of the needs of children.

The third canonical correlation appears to identify a
group of subjects who have conflicting attitudes toward par-
enting and uneven levels of social-emotional maturity. On
the positive side, they disclose attitudes portraying appro-
priate expectations of children and appropriate beliefs con-
cerning the roles between parents and their children. These
positive attitudes are associated with a high level of re-
sponsibility, and to a lesser degree, self-control and
socialization. On the negative side, they disclose atti-
tudes portraying belief in the use of physical punishment
as a parenting methodology and a lack of empathic awareness
of children's needs. These negative attitudes are assoc-
iated with a lack of tolerance.

In summary, the findings of these three canonical

correlations support the contention of this study that there is a relationship between social-emotional maturity and attitudes toward parenting.

Associated demographic characteristics.

Table 8 illustrates the correlations between selected demographic characteristics with the A/API and CPI variables. Age was the highest correlated demographic characteristic and correlated with the A/API scales and CPI scales in the follow-ing manner: EX = .02, EA = .37, RR = .29, PP = .26, Re = .42, So = .28, SC = .49, and To = .40. It appears that the older the subject the more appropriate her attitudes toward parent-ing and the higher her level of social-emotional maturity.

Not having a course in child development at the college level was negatively correlated with the scales for the A/API and CPI in the following manner: EX = -.07, EA = -.37, RR=-.31, PP = -.23, Re = -.35, So = -.27, Sc = -.46, and To = -.32. In addition, not having a child development course at the high school level was also negatively correlated with some of the A/API and CPI scales but to a lesser degree. The HSCD correlated with the EA = -.16, RR = -.10, PP = -.22, Sc = -.10, and To = -.17.

Finally, not having children was negatively correlated with the scales for the A/API and CPI in the following manner: EX = -.01, EA = -.24, RR = -.18, PP = -.07, Re = -.24, So = -.24, Sc = -.09, and To = -.20. In addition, not having a child under four years of age was also negatively correlated with some of the A/API and CPI scales but to a lesser degree. The CHU 4

TABLE 8

BIVARIATE CORRELATIONS FOR HYPOTHESIS 2

	AGE	HSCD	CCD	PARG	BABS	2PAR	SIBS	BIRO	CHILD	CHU4	EX	EA	RR	PP	Re	So	Sc	To
AGE	1.00	.02	-.71	-.28	.06	.09	.12	.11	-.49	-.14	.02	.37	.29	.26	.42	.30	.49	.40
HSCD		1.00	.02	.01	-.01	.06	.09	.11	.03	.04	.05	-.16	-.10	-.22	-.01	-.04	-.10	-.17
CCD			1.00	.11	.01	-.05	-.05	-.10	.37	.13	-.07	-.38	-.30	-.23	-.35	-.27	-.46	-.31
PARG				1.00	-.62	.05	-.11	-.05	.09	.01	.07	-.09	-.12	-.13	-.16	-.07	-.09	-.03
BABS					1.00	-.08	.07	.03	.03	-.02	-.01	.01	.01	.03	.08	-.01	.04	-.04
2PAR						1.00	.03	-.04	.09	-.03	.05	-.09	.01	-.05	-.04	-.05	.03	.01
SIBS							1.00	.30	.09	-.15	.09	.03	.10	.04	.11	-.04	.10	.07
BIRO								1.00	.05	.06	.03	.01	.05	.01	.06	.07	-.01	.01
CHILD									1.00	.22	.03	-.24	-.18	-.07	-.24	-.09	-.26	-.20
CHU4										1.00	.03	-.03	-.03	-.13	-.09	-.06	-.16	-.11
EX											1.00	.30	.36	.28	.16	.20	.10	.04
EA												1.00	.37	.45	.45	.39	.39	.41
RR													1.00	.40	.31	.24	.31	.23
PP														1.00	.25	.35	.26	.28
Re															1.00	.44	.49	.40
So																1.00	.52	.35
Sc																	1.00	.57
To																		1.00

correlated with the PP = -.12, Sc = -.16, and To = -.11.

Hypothesis 3

The third hypothesis concerned the relationship between social-emotional maturity and knowledge of child development. It was stated as follows: There is no significant relationship between subjects' knowledge of child development scores as measured by the KCDI and the subjects' respective social-emotional maturity scores as measured by the CPI. Multiple regression (stepwise) analysis was employed to test hypothesis three.

Results.

Table 9 illustrates that the F-test (F = 48.82; df = 4,432), is significant at the .001 level of probability. The responsibility subscale of the CPI has the highest correlation with the knowledge of child development factor (.33) and is the most significant contributor to the regression equation accounting for 11% of the variation. Two other subscales measuring the A/API factor are significantly correlated and appear to be significant contributors to the regression equation: the tolerance scale (.31) and the socialization scale (.31) accounting for 4% and 2% of the variation respectively. The total amount of variance between the KCDI factor and the CPI subscales is 17% (11% + 4% + 2%).

Interpretation and disucssion.

This multiple regression correlation suggests a relationship between subjects' possession of knowledge of child development and having social-emotional maturity that is characterized by a high level of responsibility and, to a lesser degree, high levels of

TABLE 9

REGRESSION OF THE KCDI WITH THE CPI

Variables	Beta	Simple r	RSQ change	F
Re	.19	.33	.14	52.22
To	.19	.31	.02	36.88
So	.17	.30	.02	28.72
Sc	-.03	.26	.001	21.56

Multiple R = .21

R^2 = .04

Overall F = 18.45; df = 4,432; p .001

tolerance and socialization. What emerges is a personality profile characterized as responsible, conscientious, dependable, tolerant, resourceful, industrious, obliging, and self-denying.

The findings support the contention that there is a relationship between knowledge of child development and social-emotional maturity, i.e., the more knowledge of child development the higher the level of social-emotional maturity. However, the correlations are not particularly high (.33, .31, .31, .26) and do not account for a great deal of change (.11, .04, .02, .0004) which suggests that the KCDI and the CPI Class II scales measure different factors, .i.e., the knowledge of child development and social-emotional maturity components in this study are separate factors.

Associated demographic characteristics.

Table 10 illustrates the correlations between selected demographic characteristics with the KCDI and A/API variables. Age had the highest correlation, correlating with KCDI = .35, Re = .42, So = .28, Sc = .49, and To = .40. It appears that the older the subject the more knowledge of child development and the greater degree of social-emotional maturity she possesses. In addition, not having taken a course in child development in college or, to a lesser degree, in her high school, also appear to be significantly correlated with the hypothesis. The CCD demographic characteristic correlated with the KCDI and CPI subscales to the following extent: KCDI = -.29, Re = -.35, So = -.27, Sc = -.46, and To = -.32. The HSCD correlated with the KCDI = -.26, Sc = -.11, and To = -.17. Finally, not having

TABLE 10

BIVARIATE CORRELATIONS FOR HYPOTHESIS 3

	AGE	HSCD	CCD	PARG	BABS	2PAR	SIBS	BIRO	CHILD	CHU4	KCDI	RE	SO	SC	TO
AGE	1.00	.02	-.70	-.28	.06	.09	.12	.11	-.49	-.14	.35	.42	.28	.49	.40
HSCD		1.00	.02	.01	-.01	.06	.09	.11	-.03	.04	-.26	-.02	-.04	-.11	-.17
CCD			1.00	.11	.01	.05	-.05	-.10	.37	.13	-.29	-.35	-.27	-.46	-.32
PARG				1.00	-.62	.05	-.11	-.06	.09	.01	-.09	-.16	-.07	-.09	-.03
BABS					1.00	-.08	.07	.03	.03	-.02	-.01	.08	-.01	.04	-.04
2PAR						1.00	.03	-.04	-.09	-.03	-.05	-.04	-.05	.03	.01
SIBS							1.00	.30	.09	.20	-.02	.11	.04	.10	.07
BIRO								1.00	-.05	.06	.04	.06	.07	-.01	.02
CHILD									1.00	.22	.30	-.24	-.09	-.26	-.20
CHU 4										1.00	-.10	-.09	-.06	-.16	-.11
KCDI											1.00	.33	.31	.26	.31
RE												1.00	.44	.49	.40
SO													1.00	.52	.35
SC														1.00	.56
TO															1.00

children and, to a lesser degree, not having children under four
years of age appear to be negatively correlated with the second
hypothesis. The CHILD demographic characteristic correlated with
the KCDI = -.30, Re = -.24, Sc = -.26, and To = -.20. The CHU 4
correlated with the KCDI = -.10, Sc = -.16, and To = -.11.

Hypothesis 4

The fourth statistical hypothesis concerned the relationship
between social-emotional maturity, knowledge of child development,
and attitudes toward parenting. It was stated as follows: There
is no significant relationship between subjects' social-emotional
maturity scores as measured by selected scales of the CPI, sub-
jects' knowledge of child development total scores as measured
by the KCDI, and the subjects' respective parenting attitudes
scores as measured by the A/API. This hypothesis was tested by
employing canonical correlation analysis.

Table 11 indicates two canonical correlations are significant
(r = .68, .21; probabilities less than .000, .003 respectively).
The eigen values being .46 for the first and .05 for the second.
The total amount of variation between the dependent and indepen-
dent factors was 51% (46% + 5%).

Results of canonical 1.

Examining the variables correlated within the first canon-
ical correlation indicates the EA scale (-.74) contributing to
the greatest extent, with the RR (-.26) and PP (-.26) to a lesser
degree. Associated with this variate set are the KCDI = -.58,
Re = -.26, To = -.22, So = -.19, and Sc = -.12.

TABLE 11

CANONICAL CORRELATIONS OF HYPOTHESIS 4

First Variate Set	First Canonical Variate	Second Canonical Variate
EX	.09	-.54
EA	-.74	.36
RR	-.26	.72
PP	-.26	-.90
Second Variate Set		
Re	-.26	.51
So	-.19	-1.06
Sc	-.12	.67
To	-.22	.08
KCDI	-.58	-.19

Canonical Correlations	Eigenvalve	Wilks Lambda	ChiSquare	D.F.	Significance Level
1. .68	.46	.50	293.98	20	.000
2. .21	.05	.93	30.10	12	.003

Interpretation and discussion of canonical 1.

The first pair of canonical variates appear to identify a group of subjects whose scores portray parenting attitudes that are characterized by a lack of empathic awareness for the needs of children and, to lesser degrees, belief in the use of physical punishment and role reversal in parenting.

These negative parenting attitudes are correlated with a lack of knowledge of child development and low levels of responsibility, tolerance, socialization and self-control. What emerges is a profile of an individual who lacks knowledge of child development, i.e., is unaware of what to expect from a child at various age levels and is limited in the development of social-emotional maturity. The individual's personality is characterized by being immature, overly influenced by personal bias, being distrustful and aloof, lacking impulse control, being overly judgmental, demanding, resentful, undependable, irritable, aggressive, self-centered, and concerned with personal pleasure and self-gain.

This canonical correlation appears to indicate a definite relationship between subjects' inadequate attitudes toward parenting and both a lack of knowledge of child development and a low level of social-emotional maturity.

Results of canonical 2.

The second canonical correlation (Table 11) indicates that in the first variate composite the variables contribute in the following manner: PP = -.90, RR = .72, EX = -.54, and EA = .36.

Within the second variate composite the variables contribute in the following manner: So = -1.06, Sc = .67, Re = .51, KCDI = -.19, and To = .08.

Interpretation and discussion of canonical 2.

This second canonical correlation suggests a separate group of subjects, from the first canonical correlation, who reveal conflicting parenting attitudes and both positive and negative scores from the second variate set. On the negative side, these subjects disclose attitudes that favor the use of physical punishment as a methodology in parenting and lack appropriate expectations of children. These negative attitudes are associated with a lack of socialization and limited knowledge of child development in the second variate set. What emerges on the negative side is an individual who has limited knowledge of appropriate age level expectations of children and who has a personality profile characterized by being demanding, resentful, stubborn, and undependable. On the positive side, these subjects disclose attitudes favorable in regard to role reversals and empathic awareness toward the needs of children. These attitudes are associated with self-control and a sense of responsibility in the second variate set. What emerges on the positive side are personality characteristics of being patient, self-denying, thoughtful, conscientious, tolerant and resourceful.

This canonical correlation appears to identify a group of subjects who have conflicting attitudes toward parenting, uneven levels of social-emotional maturity, and limited knowledge of

child development. The positive attitudes are associated with social-emotional maturity characteristics measured at a high level. Whereas the negative attitudes are associated with a low level of social-emotional maturity and a limited knowledge of child development.

In summary, the findings of these two canonical correlations support the contention of this study that there is a relationship between attitudes toward parenting and knowledge of child development, and social-emotional maturity.

Associated demographic characteristics.

Table 12 illustrates the correlations between selected demographic characteristics with the KCDI, A/API and CPI variables. Age was the highest correlated demographic characteristic and correlated with the scales of the inventories in the following manner: KCDI = .35, EX = .02, EA = .37, RR = .29, PP = .26, Re = .42, So = .28, Sc = .49, To = .40. It appears the older the subject the more appropriate her attitudes toward parenting and the greater her knowledge of child development, and the higher her level of social-emotional maturity.

Not having a course in child development at the college level was negatively correlated with the scales of the inventories in the following manner: KCDI = -.29, EA = -.38, RR = -.31, PP = -.23, Re = -.35, So = -.27, Sc = -.46, and To = -.32. In addition, not having a child development course at the high school level was also negatively correlated with some of the scales of the inventories but to a lesser degree. The HSCD correlated with the KCDI = -.26, EA = -.16, RR = -.10, PP = -.22, Sc = -.11, To = -.17.

TABLE 12

BIVARIATE CORRELATIONS FOR HYPOTHESIS 4

	AGE	HSCD	CCD	PARG	BABS	2PAR	SIBS	BIRO	CHILD	CHU4	KCDI	EX	EA	RR	PP	RE	SO	SC	TO
AGE	1.00	.02	-.71	-.28	.06	.09	.12	.11	-.49	-.14	.35	.02	.37	.29	.26	.42	.28	.49	.40
HSCD		1.00	-.02	.01	.01	.06	.09	.11	-.03	.04	-.26	.05	-.16	-.10	-.22	-.02	-.04	-.11	-.17
CCD			1.00	.11	.01	-.05	-.05	-.09	.36	.13	-.29	-.06	-.38	-.31	-.23	.35	-.27	-.46	-.32
PARG				1.00	-.62	.05	-.11	-.05	.09	.01	.09	-.07	-.09	-.12	-.13	-.16	-.07	-.09	-.04
BABS					1.00	-.08	.07	.03	.03	-.02	-.01	-.01	.01	.02	.03	.08	-.01	.04	-.04
2PAR						1.00	.03	-.04	-.09	-.03	-.05	-.05	-.08	.01	-.05	-.04	-.05	.03	.01
SIBS							1.00	.30	-.09	-.15	-.02	.09	.02	.10	.04	.11	.04	.10	.07
BIRO								1.00	.05	.06	.04	.03	.01	.05	.01	.06	.07	-.01	.02
CHILD									1.00	.22	-.30	.02	-.24	-.18	-.07	-.24	-.09	-.26	-.20
CHU 4										1.00	.10	.03	-.03	-.03	-.13	-.09	-.06	-.16	-.11
KCDI											1.00	.18	.52	.34	.40	.33	.31	.26	.31
EX												1.00	.31	.36	.38	.16	.20	.10	.04
EA													1.00	.37	.45	.45	.39	.39	.41
RR														1.00	.40	.31	.24	.31	.24
PP															1.00	.25	.35	.26	.28
RE																1.00	.44	.49	.40
SO																	1.00	.52	.35
SC																		1.00	.56
TO																			1.00

Finally, not having children was negatively correlated with the scales of the inventoried in the following manner: KCDI = -.30, EX = -.03, EA = -.24, RR = -.18, PP = -.07, Re = -.23, So = -.09, Sc = -.26, and To = -.20. In addition, not having a child under four years of age was also negatively correlated with some of the scales of the inventories: CHU 4 correlated with the PP = -.13, Sc = -.16, To = -.11.

Summary

Sufficient support was established to reject each of the four null hypotheses.

Support for a relationship between subjects' knowledge of child development and attitudes toward parenting was established. The analysis suggested that the more knowledge of child development a subject possessed the more positive her attitudes toward parenting would be.

In addition, support for a relationship between social-emotional maturity and attitudes toward parenting was established. Three different correlations were found in support of this relationship. First, the analysis suggested that low levels of social-emotional maturity were associated with subjects' inadequate attitudes toward parenting. Second, the analysis also suggests that definite relationships were present with subjects having uneven levels of social-emotional maturity (depending upon the characteristic under consideration) and conflicting attitudes toward parenting. The data were interpreted to indicate that the subjects' high levels of social-emotional maturity were associated with the subjects' positive attitudes toward parenting,

and that subjects' low levels of social-emotional maturity were associated with negative attitudes toward parenting. The third relationship also suggests another group of subjects with uneven levels of social-emotional maturity and conflicting attitudes toward parenting. Again, the data were interpreted to indicate that the subjects' high and low levels of social-emotional maturity were associated with the subjects' positive and negative attitudes toward parenting respectively.

Also support for a relationship between subjects' knowledge of child development and social-emotional maturity was established. The analysis suggested that the more knowledge of child development a subject possessed the higher her level of social-emotional maturity.

However, the findings suggest that knowledge of child development and social-emotional maturity are separate factors.

Finally, support for a relationship between attitudes toward parenting and knowledge of child development and social-emotional maturity was established. Two different relationships were found to be correlated in support of this relationship. First, the analysis suggests that subjects' lack of knowledge of child development together with low levels of social-emotional maturity were associated with the subjects' inadequate attitudes toward parenting. Second, the data also suggests that definite relationships were present with subjects' having uneven levels of social-emotional maturity and conflicting attitudes toward parenting. The data were interpreted to indicate that subjects'

low levels of social-emotional maturity and limited knowledge of child development were associated with their negative attitudes. Whereas, the subjects' high levels of social-emotional maturity were associated with positive attitudes toward parenting.

In summary, the analysis of the data suggests that there were significant relationships among knowledge of child development, social-emotional maturity, and attitudes toward parenting. In general, the relationships indicated that subjects' positive attitudes toward parenting were associated with knowledge of child development and high levels of social-emotional maturity, and subjects' negative attitudes toward parenting were associated with a lack of knowledge of child development and low levels of social-emotional maturity.

Several of the demographic characteristics appeared to be significant within each of the four hypotheses. Age, having taken a college level course in child development, and having children of one's own were consistently correlated with the scales within each hypothesis.

Age was positively correlated within each hypothesis. The analysis suggests that the older the subject the more positive her attitude toward parenting, the greater her knowledge of child development, and the higher her level of social-emotional maturity.

The college level course and children of one's own demographic characteristics were negatively correlated within each hypothesis. The analysis suggests that subjects' not having taken a college level course in child development and not having children of one's

own were associated with negative attitudes toward parenting, limited knowledge of child development, and a lower level of social-emotional maturity.

In addition, the demographic characteristics, of having taken a high school level course in child development and having children of one's own under four years of age, were negatively correlated in a similar manner as the college level course and children of one's own, but less significantly.

Demographic characteristics that were not found to be significantly correlated with these subjects were participation in a parent group, babysitting experience, living in a two parent family while growing up, having siblings, or one's birth order.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Purpose

There has been widespread acceptance of knowledge of child development as a factor in effective parenting. Subsequently parent training programs are often based on this premise. However, there has been no empirical research to verify the premise. In addition, social-emotional maturity has been a theoretical premise proposed to account for effective parenting.

The intent of this study was to investigate these two theoretical premises. The stated contentions of this study were: 1) there is a relationship between knowledge of child development and attitudes toward parenting, 2) there is a relationship between social-emotional maturity and attitudes toward parenting, and 3) there is a relationship between attitudes toward parenting, and knowledge of child development and social-emotional maturity. More specifically, it was hypothesized that positive attitudes toward parenting were influenced by knowledge of child development and a high level of social-emotional maturity. Conversely, negative attitudes toward parenting were influenced not only by a lack of knowledge of child development but also by a low level of social-emotional maturity.

Design

The sample consisted of a total of 434 participants. They were drawn from several Chicago area high schools, junior colleges, a Chicago university and a Chicago suburban junior high school. Demographic information was obtained in the following categories: sex, age, racial background, two parent family, siblings, birth order, coursework in child development, participation in parent training, parenting, and babysitting experience.

Procedurely, the testing portion of the study consisted of three separate sessions of one hour each. During the first one hour session, the participants completed a one page information sheet detailing their family background and took Bavolek's Adult/Adolescent Parenting Inventory, the attitude measure in this study. The second one hour session was devoted to the California Psychological Inventory which was utilized in this study as the social-emotional measure. During the final one hour session, the Knowledge Of Child Development Inventory, the child development measure was administrated. This instrument was specifically developed for this study. The KCDI has a reading level of 8.0 grade level and is comprehensible to the general public.

Null Hypotheses

Hypothesis 1:   There is no significant relationship between subjects' knowledge of child development as measured by the KCDI and the subjects' respective parenting attitude scores as measured by the A/API.

Hypothesis 2:   There is no significant relationship between subjects' social-emotional maturity scores as measured by selected scales of the CPI and the subjects' respective parenting attitude scores as measured by the A/API.

Hypothesis 3:   There is no significant relationship between subjects' knowledge of child development scores as measured by the KCDI and the subjects' respective social-emotional maturity scores as measured by selected scales of the CPI.

Hypothesis 4:   There is no significant relationship between subjects' knowledge of child development total scores as measured by the KCDI, subjects' social-emotional maturity scores as measured by selected scales of the CPI, and the subjects' respective parenting attitude scores as measured by the A/API.

Results

Support for a relationship between subjects' knowledge of child development and attitudes toward parenting was established. Multiple regression analysis indicated the more knowledge of child development a subject possessed the more positive her attitude toward parenting would be.

In addition, support for a relationship between social-emotional maturity and attitudes toward parenting was established. Three different canonical correlations were found in support of this relationship. The most significant relationship indicated that low levels of social-emotional maturity

were associated with subjects' inadequate attitudes toward parenting.

Support for a relationship between subjects' knowledge of child development and social-emotional maturity was also established through multiple regression analysis. However, the relationship accounted for only 17% of the variation between factors. This finding was interpreted to indicate that knowledge of child development and social-emotional maturity were separate factors in this study.

Finally, support for a relationship between attitudes toward parenting and knowledge of child development and social-emotional maturity was established. Two different canonical correlations were found to be in support of this relationship. The most significant relationship indicated that subjects' lack of knowledge of child development together with low levels of social-emotional maturity were associated with the subjects' inadequate attitudes toward parenting.

Several of the demographic characteristics appeared to be significant within each of the hypotheses. The analysis suggested that the older the subject the more positive her attitude toward parenting, the greater her knowledge of child development, and the higher her level of social-emotional maturity. In addition, the analysis suggested that subjects' not having taken a college level course in child development or having children of one's own were associated with negative attitudes toward parenting, limited knowledge of child development, and a lower level of social-emotional

maturity.

The findings support the major contention of this study that knowledge of child development and social-emotional maturity are factors associated with attitudes toward parenting. The joint impact of the two independent factors upon attitudes toward parenting accounted for 51% of the variation between the variables.

Conclusions

Conclusions drawn from the results of this study must be reviewed in regard to the analysis techniques that were employed. It must be understood that intercorrelation techniques, which include multiple regression and canonical correlations, allow for the explanation of the degree of relationship between dependent and independent factors but do not allow for cause-effect relationships to be substantiated. In addition, it must be recognized that intercorrelation techniques only consider the variables which are included within the analysis, certainly there are other variables which may be relevant.

However, as has been previously stated, the intent of this study was to determine if the presumed factors of knowledge of child development and social-emotional maturity actually are related to attitudes toward parenting. The findings of this study are supportive of these contentions.

It was indicated for the sample population that knowledge of child development accounted for 33% of the variation in the individuals' attitudes toward parenting. Within

the 33%, the dimension empathic awareness correlated most highly
(28%), followed by attitudes toward physical punishment (4%), and
role reversal (1%).

It was also indicated for the sample population that social-
emotional maturity accounted for 39% of the variation in the
individuals' attitudes toward parenting. Three different canon-
ical correlations between the attitudes toward parenting variables
and social-emotional maturity variables accounted for this vari-
ation. The most significant canonical accounted for 33% of the
variation. This canonical indicated that within the sample popu-
lation negative parenting attitudes were correlated with low
levels of the social-emotional maturity variables.

A relationship between knowledge of child development and
social-emotional maturity was also established for the sample
population. This relationship accounted for only 17% of the
variation between the two factors. This result was interpre-
ted to indicate that knowledge of child development and social-
emotional maturity in this study were separate factors.

The joint impact of the knowledge of child development and
social-emotional maturity factors upon attitudes toward parent-
ing accounted for 51% of the variability among the variables.
Two different canonical correlations accounted for this variation.
The most significant canonical accounted for 46% of the variation.
This canonical indicated that within the sample population negative
parenting attitudes were correlated with limited knowledge of child

development and low levels of social-emotional maturity. This finding supported the major contention of the study that inadequate attitudes toward parenting are indicative of both a limited knowledge of child development and low levels of social-emotional maturity.

Thus, the findings of this study support the contention that knowledge of child development and social-emotional maturity are factors associated with attitudes toward parenting. However, from the results of this study it is not possible to conjecture whether training adolescents (or anyone else) for the parenting task by teaching cognitive knowledge of child development is an effective training strategy. To determine the effectiveness of this training strategy it would be necessary to establish treatments, control groups, and pre and post measures of knowledge of child development. Such procedures have not previously been possible due to the unavailability of appropriate instrumentation to measure knowledge of child development.

Fortunately, another significant contribution of this study was the development of the Knowledge Of Child Development Inventory (KCDI). Initial examination of this instrument indicates the inventory has internal reliability of .93 and criterion validity of .80. With an 8.0 grade reading level (Fry Reading Index) and with technical terminology kept at a minimum, the KCDI is particularly relevant for use with young populations and populations with limited educational backgrounds. The KCDI will allow for the investigation of parent training strategies

based on the cognitive knowledge perspective.

The findings of this study suggest several considerations if teaching trainees cognitive knowledge of child development as a parenting effectiveness training strategy is comtemplated. The analysis unquestionably indicates that attitudes toward parenting are correlated not just with knowledge of child development but with social-emotional maturity as well. Perhaps without trainees possessing a certain level of social-emotional maturity, cognitive instruction in knowledge of child development is an ineffective method of parent attitude training.

This conjecture is supported by several of the findings related to the subjects' demographic characteristics. Age was positively correlated with attitudes toward parenting and as would be expected social-emotional maturity and knowledge of child development. In addition, the subjects' who had taken a college level course in child development scored more positively in regard to attitudes toward parenting than subjects who had taken a high school level course in child development. The subjects who had taken the college level course in child development also scored higher in regard to social-emotional maturity and higher in knowledge of child development.

These findings suggest cognitive training for parenting possibly is affected by the age and social-emotional maturity of the trainees. Perhaps training is dependent upon trainees reaching a certain age level which would be reflective of a particular social-emotional maturity level.

Another consideration for parent training is suggested from the demographic data findings that indicate subjects without children tended to have more negative attitudes toward parenting, lower social-emotional maturity levels, and less knowledge of child development than subjects with children. Perhaps training would be most effective with trainees who already have children or are pregnant or are considering becoming parents. Conversely, perhaps training for individuals not contemplating having children or desiring children would not be particularly productive.

The concept of teaching adolescents effective child rearing practices prior to parenthood seems to be a logical approach. J. McVicker Hunt (Pines, 1979), a major proponent of this position proposes that this approach allows for the possibility, especially for the poor undereducated population, to learn some new ideas about child rearing before they have fully absorbed and incorporated the child rearing attitudes and beliefs of their social class. Hunt suspects that the perpetuation of inadequate child rearing techniques result in the entrapment of the undereducated in poverty for generations. He further states that the poor undereducated population is hard to reach and influence since they do not read child development advice in books and magazines; thus, he suggests that it may be effective to influence 14 and 15 year olds while they are still in school.

In contrast, Vladimir De Lissovoy (1977) reasons that an individual in the adolescent years is not maturationally ready to understand or resolve the developmental tasks of parenthood. DeLissovoy cautions against a cognitive education for parenthood approach, stating that such an approach ignores the developmental imperatives of adolescents. He argues that so great are the internal dynamics and social-stimuli for the adolescent that the future role of being a parent is unlikely to be of present interests. He advocates, from an Eriksonian position, that what would be a more relevant pre-parent education program for adolescents would be an approach to facilitate the resolution of the identity crisis, i.e., to help the adolescent identify occupational choices and an ideological commitment which are the precursors of the parental sense. DeLissovoy concludes that the objectives of the cognitive approach may be sound but the target audience (the adolescent) is questionable.

Although this present study does not directly address the training approach question, the findings suggest that the training of adolescents for the parenting task is not simply a matter of providing trainees a course in child development. What the results do indicate is that both social-emotional maturity and knowledge of child development are factors associated with attitudes toward parenting. The results indicate that the joint impact of these two factors on attitudes toward parenting needs further investigation if intelligent decisions concerning the training of adolescents for the parenting task are to be made.

Recommendations

Recommendations for further research

1) Experimental research which includes treatments, controls, and pre-post testing needs to be initiated to determine the effects of cognitive training in child development.

2) Experimental research of cognitive training in child development needs to be initiated with subjects of varying social-emotional maturity levels to determine specifically how the maturity factor effects cognitive training, i.e., is a particular maturity level conducive to cognitive training?

3) Experimental research of cognitive training in child development needs to be initiated with groups in varying stages of parenthood. The purpose being to determine if a particular stage of parenting is conducive to cognitive training, i.e., contemplating having a child, being pregnant, recently having given birth to a child, having a child at a particular age level.

Recommended educational and clinical uses of the KCDI

1) The KCDI would be relevant in educational settings where pre and post assessment of knowledge of child development is desired, i.e., high school courses in child development, prenatal classes, Head Start parent training programs, and early childhood/special education parent training programs.

2) The KCDI would be relevant in clinical settings where the assessment of individual's concepts of child development are of importance, i.e., adoption agencies, abuse centers, and teenage pregnancy centers.

REFERENCES

Ackley, D. A brief overview of child abuse. Social Casework
1977, 58, 21-24.

Ames, L.E., Child care and development. New York: Lippincott,
1970.

Anatasi, A. Psychological testing. New York: Macmillan, 1968.

Badger, E. Mothers' training program: The group process. ERIC
Document Identification No. ED 032 926.

Bain, K. Commentary: The physically abused child. Pediatrics,
1963, 31, 805-898.

Bandura, 1969: Social-learning theory of identification pro-
cesses. In P.A. Goslin (Ed.), Handbook of socializa-
tion theory and research. New York: Rand McNally, 1969.

Bavolek, S., Kline, D., McLaughlin, J., & Publicover, P. Primary
prevention of child abuse: Identification of high risk
adolescents prior to parenthood. Unpublished report,
Utah State University, 1978.

Beck, J., How to raise a brighter child. New York: Simon and
Schuster, 1967.

Becker, W. C., Parents are teachers. Englewood Cliffs: Pren-
tice Hall, 1977.

Beller, E. Research on organized programs of early education.
In R. Travers (Ed.), Second handbook of teaching. Rand
McNally & Co., 1973.

Bettelheim, B., Dialogues with mothers. New York: Avon, 1962.

Biehler, R.F., Child development. Boston: Houghton Mifflin, 1976.

Blumberg, M. Psychopathology of the abusing parent. American
Journal of Psychotherapy, 1974, 28, 21-29.

Brazelton, T.B. Infants and mothers. New York: Dell, 1973.

Brazelton, T.B. Toddlers and parents. New York: Dell, 1974.

Brisbane, H.E. The developing child. New York: Bennett, 1975.

Brophy, J.E. Child development and socialization. Chicago:
Science Research Associates, 1977.

Bruce, J. Adolescent parents: A special case of the unplanned family. The Family Coordinator, 1978, 27, 75-78.

Bullard, D.M., Glaser, H.H. Heagarty, M. C. & Pivchic, E. C. Failure to thrive in the neglected child. American Journal of Orthopsychiatry, 1967, 37, 680-690.

Buros, O.K. (Ed.) The eighth mental measurement yearbook, New Jersey, Gryphone Press, 1978.

Caplan, F. The first twelve months of life, New York: Grosset and Dunlap, 1973.

Caske, O. & Richardson, I. Understanding and helping child-abusing parents. Elementary School Guidance & Counseling, 1975, 9, 196-208.

Child Care. Los Angeles: Rocum Press, 1973.

Cobb, C., and Peters, E. Exploring Childhood: Summary of Evaluation findings: year one. Cambridge, Mass.: Education Development Center, 1975.

Collins, G. The psycho-social characteristic of child abusers. Unpublished doctoral dissertation, United States International University, 1975.

Clarke-Stewart, A. Child care in the family a review of research and some propositions for policy. New York: Academic Press, 1977.

Curtis, G. Violence breeds violence - perhaps? The American Journal of Psychiatry, 1963, 120, 386-387.

Davey, A.G. Attitudes and prediction of social conduct. British Journal of Social and Clinical Psychology, 1976, 15, 11-22.

Davoren, E. A social worker's view. Children Today, 1975, 4; 38-43.

DeLissovoy, V. Childcare by adolescent parents. Children Today, 1973, 2, 22-25.

DeLissovoy, V. Education for parenthood - white elephant in the classroom. Paper presented at the Conference of the National Council on Family Relations. San Diego, October, 1977.

Dinkmeyer, D. & McKay, G.D., Systematic training for effective parenting. Circle Pines, Minn: American Guidance Services, 1976.

Dobson, F., How to parent. New York: New American Library, 1970.

Draper, M.W. & Draper, H. E., Caring for children. New York: Bennett, 1975.

Duncan, J., & Duncan, G. Murder in the family: A study of some homicidal adolescents. American Journal of Psychiatry, 1971, 127, 1498-1502.

Epstein, A. Adolescent parents and infants project preliminary findings. Mimeo - Ypsilanti, Michigan: High Scope Educational Research Foundation, 1978.

Early childhood project, child abuse and neglect (Model Legislation for the States, Report No. 71). Denver: Education Commission of the States, 1975.

Erikson, E. H. Childhood and society. New York, 1950.

Erikson, E. H. Idenity, yough and crisis. New York: Norton, 1968.

Evans, S. Failure to thrive: A study of 45 children and their families. Paper presented at the twenty-second annual meeting of the American Association of Psychiatric Services for Children, Philadelphia, 1970.

Exploring childhood, Cambridge: Education Development Center, 1972.

Field, T. Early development of the premature offspring of teen-age mothers. Mailman Center, University of Miami, 1979.

Fishbein, M. & Ajzen, I. Belief, attitudes, intentions, and behavior: An introduction to theory and research. Reading, Ma.: Adison Wesley Co., 1975.

Footsteps. Curriculum materials to accompany - A Television Series on Parenting. Baltimore: Applied Management Sciences, 1978.

Forrester, B., Harge, B., Outlaw, D., Brooks, G., & Boismeir, T. The intervention study with mother and infants. Nashville: Peabody Demonstration and Research Center in Early Education, 1971.

Fraiberg, S. H., The magic years, New York: Charles Scribner's Sons, 1959.

Freud, S. Infantile sexuality. Three contributions to the sexual theory. Trans. A. A. Brill, Nervous and Mental Disease Monographs, 1910, 7.

Galdston, R. Observations on children who have been physically abused and their parents. *American Journal of Orthopsychiatry*, 1965, 122, 440-443.

Gough, H., *California Psychological Inventory*. Palo Alto: Consulting Psychologists Press, Inc., 1975.

Gordon, I. *A parent education approach to provisions of early stimulation for the culturally disadvantaged*. A final report to the Fund for the Advancement of Education of the Ford Foundation, 1967. (ERIC Document Identification No. Ed 017 339)

Gordon, I., & Jester, R. Techniques of observing teaching in early childhood and outcomes of particular procedures. In R. Travers (Ed.), *second handbook of research on teaching*. Rand McNally & Co., 1973.

Gordon, T., *Parent effectiveness training*. New York: Peter H. Wyden, 1970.

Gregg, G.S. Physicians, child abuse reporting laws, and injured child: Psychosocial anatomy of childhood trauma. *Clinical Pediatrics*, 1968, 7, 720-725.

Graubard, P.S., *Positive parenthood*. New York: Blume Book, 1977.

Green, A.H. A psychodynamic approach to the study and treatment of child-abusing parents. *Journal of the American Academy of Child Psychiatry*, 1976, 15, 414-429.

Grundlund, N.E., *Measurement and evaluation in teaching*. New York: Macmillan, 1971.

Hageman, H., *Parental attitudes, perceptions of parents and some personality characteristics of child abusing women*, unpublished doctoral dissertation, The Catholic University of America, 1977.

Hamilton, M. *Evaluation of a parent and child center program*. U. S. Department of Health, Education and Welfare, 1970. (ERIC Document Identification No. Ed 045 189)

Hatcher, S.L. *The adolescent experience of pregnancy and abortion: A developmental analysis*. Mimeo, Plenum Publishing Co.: New York, 1973.

Heath, D. Maternal competence, expectation, and involvement. *The Journal of Genetic Psychology*, 1977, 131, 169-182.

Hebb, D.O. *The organization of behavior*. New York: John Wiley, 1949.

Helfer, R. The etiology of child abuse. Pediatrics, 1973, 51, 779-824.

Hiller, R. B. The battered child: A health visitor's point of view. Nursery Times, 1969, 65, 1265-1266.

Hippel, C., Cohen, K. & Associates., Exploring childhood: evaluation findings: year two. Cambridge, Mass.: Education Development Center, 1976.

Hunt, J. McV. Parent and child centers: Their basis in the behavioral and educational sciences. American Journal of Orthopsychiatry, 1971, 41, 13-38.

Hurlock, E.B., Adolescent development. New York: McGraw-Hill, 1975.

Hurlock, E.B., Child development. New York: McGraw-Hill, 1978.

Hyman, C. A report on the psychological test results of battering parents. Unpublished doctoral dissertation, University of Michigan, 1976.

Ilg, F.L., and Ames, L.B., Child behavior. New York: Harper & Row, 1955.

Illinois caucus on teenage pregnancy fact sheet, problems of early pregnancy. March 5, 1979. Available from Illinois Caucus of Teenage Pregnancy, 72 W. Adams, Room 1326, Chicago, Illinois 60603.

Jersild, A.T., Child psychology. Englewood Cliffs: Prentice-Hall, 1978.

Joint commission on mental health of children, crisis in mental health: Challenge of the 1970's. New York: Harper & Row, 1970.

Johnson, B. & Morse, H.A. Injured children and their parents. Children, 1968, 15, 147-152.

Justice, B. & Justice, R. The abusing family. New York: Human Sciences Press, 1976.

Karnes, M.B. Research and development program on preschool disadvantaged children: Final report. Washington, D.C.: U. S. Office of Education, 1969.

Karnes, M., Teska, J., Hodgins, A. and Badger, E. Educational intervention at home by mothers of disadvantaged infants. Child Development, 41, 1970.

Karnes, M., & Zehrbach, R. Matching families and services. Exceptional children, May, 1975.

Katz, D. & Stotland, E. A preliminary statement to the theory of attitude structure and change. In, S. Koch (Ed.) Psychology: a study of a science, 3, 1959, New York: McGraw-Hill.

Katz, M. A comparison of ego functioning in filicidal and physically child-abusing mothers. Unpublished doctoral dissertation, California School of Professional Psychology, 1975.

Kelly, E.R. Review of the California Psychological Inventory. In E. E. Buros (Ed.) The sixth mental measurement yearbook, 1965, Highland Park, N.J.: Gryphos Press.

Kempe, C., Silverman, F., Steele, B., Droegmuller, W. & Silver, H. The battered child syndrome. Journal of the American Medical Association, 1962, 181, 17-24.

Kleinmuntz, B. Personality measurement: an introduction. Homewood, Illinois: Dorsey Press, 1967.

Korsch, B.M., Christian, J.B., Gozzi, E.K., & Carlson, P.V. Infant care and punishment: A pilot-study. American Journal of Public Health, 1965, 55, 1880-1888.

Kruger, W. Education for parenthood and school age parents. Journal of School Health, 1975, 45, 292-295.

Landsmann, L. Child abuse is no myth. Instructor, 1974, 83, 84-85.

LeShaw, E., On "How do your children grow". New York: Warner, 1972.

Levenstein, P. Verbal interaction project: aiding growth in disadvantaged preschoolers through the mother-child home program: Final Report. Child Welfare Research & Demonstration Project R-300, 1971. (ERIC Document Identification No. ED 059 791)

Levenstein, P. Mothers as early cognitive trainers: guiding low income mothers to work with their preschoolers. Paper given at Biennial Meeting, Society for Research in Child Development, 1972. (ERIC Document Identification No. Ed 059 786)

Lott, A. Social psychology. In, Wolman, B. (Ed.) Handbook of general psychology. Englewood Cliffs: Prentice-Hall 1959.

Markham, M. and Jacobsen, H., Unwed teenage mothers. Parents Magazine and Better Homemaking, June 1976, 36, 53.

Martin, H. The environment of the abused child. In H. Martin (Ed.), The abused child: A multidisciplinary approach to developmental issues and treatment. Cambridge: Ballinger, 1976.

McCandles, B.R. and Trotter, R. J. Childrens behavior and development. New York: Rhinehart and Winston, 1977.

Megargee, E. The california psychological inventory handbook. San Francisco: Jossey-Bass Inc., 1972.

Melnick B., & Hurley, J.R. Distinctive personality attributes of child-abusing mothers. Journal of Consulting and Clinical Psychology, 1969, 33, 746-749.

Mercer, R., Becoming a mother at sixteen. The American Journal Child Nursing. 1976, 1, 45-52.

Moore, K.A. The social and economic consequences of teenage childbearing for women, families, and government welfare expenditures. Washington D.C.: The Urban Institution, 1978. (ERIC Document Identification No. Ed 062 523)

Morris, L.A. Education for parenthood: A program, curriculum, and evaluation guide, Tucson: Behavior Associates, 1977.

Morris, L.A. Personal communication, June 19, 1978.

Morris, M.G., & Hurley, J.R. A concept in dealing with the neglected/battered child syndrome. In, The neglected battered-child syndrome: Role reversal in parents. New York: Child Welfare League of America, 1963.

Mussen, P.H., Conger, J.J. and Kagus, J. Child development and personality. New York: Harper & Row, 1974.

Munsinger, H. Fundamentals of child development. New York: Holt Rhinehart and Winston, 1978.

National Center for Health Statistics, Monthly vital statistics report. February, 1976, 24, (11, sup.2).

Nie, N., Statistical package for the social sciences. New York: McGraw-Hill, 1975.

Niedermeyer, F. Parent assisted learning. Southwest Regional Laboratory for Educational Research and Development, Inglewood, California, 1970. (ERIC Document Identifications No. Ed 042 588)

Norton, R.G., _Parenting_. New Jersey: Printice Hall, 1977.

Nunnally, J.C., _Educational measurement and evaluation_. New York: McGraw-Hill, 1972

Nye, F.I., _School-age parenthood: Consequences for babies, mothers, fathers, grandparents, and others_. (Extension Bulletin 667) Washington State University, Pullman, Washington; 1976.

Paplia, D.E. and Olds, S. W. _Human development_. New York: McGraw-Hill, 1978.

Parent's Magazine (Producer). _How an average child behaves-from birth to age five_. New York: Parent Magazine Films, 1974.

Passman, R. Maternal punitiveness as affected by situational stresses: An experimental analogue of child abuse. _Journal of Abnormal Psychology_, 1977, _86_, 565-569.

Peed, S., Roberts, M. & Forehand, R. Evaluation of the effectiveness of a standardized parent training program in altering the interaction of mothers and their noncompliant children. _Behavior Modification_, 1977, _1_, 323-350.

Pierce, W. (Ed.) _The role of the family in child development: Implications for state policies and programs_. Education Commission of the States, Denver, Colorado, 1975.

Pines, M. _A head start in the nursery school: an interview with J. McVicker Hurt_. Psychology Today, September, 1979.

Radin, N. _Three degrees of parent involvement in a preschool program: impact on mothers and children_. Paper presented at the Annual Meeting of the Midwestern Psychological Association, Detroit, Michigan, 1971. (ERIC Document Identification No. 052 831.)

Rayden, N. _An assessment of cognitive growth in children who have participated in the toy-lending component of the parent-child program_. Department of Health, Education and Welfare, June, 1970. (ERIC Document Identification No. ED 045 204)

Salk, L. _What every child would like his parents to know_. New York: New American Library, 1972.

Sanford, A. _A manual for use of the learning accomplishment profile_. Winston-Salem, N.C.: Kaplan School Supply Corp. 1974.

Scheurer, W. An evaluation of two treatment methods related to improving the parenting skills of abusive mothers. Unpublished doctoral dissertation, Michigan State University, 1977.

Smart, M.S. and Smart R.C. Preschool children. New York: Macmillan, 1973.

Smart, M.S. and Smart, R.C. Children development and relationships. New York: Macmillan, 1977.

Smiley, C. Birth to three homebound curriculum. Peoria, Illinois, 1975.

Smith, S.M., Hanson, R., and Noble, S. Parents of battered children: A controlled study. In A.W. Franklin (Ed.), Concerning child abuse. New York: Churchill-Livingston, 1975.

Smith, S. The battered child syndrome: some research aspects. Psychiatric Journal of the University of Ottawa, 1976, 8, 158-164.

Steele, B. Violence in our society. The Pharos of Alpha Omega Alpha. 1970, 33, 41-48.

Steele, B.F., & Pollock, C.D. A Psychiatric study of parents who abuse infants and small children. In C.H. Kempe & R. E. Helfer (Eds.), The battered child. Chicago: University of Chicago Press, 1968.

Stone, J.L. and Church, J. Children and adolescence. New York: Random House, 1978.

Thompson, J. Frustration tolerance, parenting attitudes and perceptions of parenting behavior as factors in the incidence of child abuse. Unpublished doctoral dissertation, Georgia State University, 1977.

Tietze, C. Teenage pregnancies: Looking ahead to 1984. Family Planning Perspectives. 1978, 10, 205-207.

Ventura, S. J. Teenage childbearing. Monthly Vital Statistics Report 26, no.5, Supplement. DHEW Publication No. (HRA) 77-1120. Washington D.C.: Health Resources Administration, 1977.

Wall, C. Child abuse: A societal problem with educational implications. Peabody Journal of Education, 1975, 52, 222-225.

Wasserman, S. The abused parent of the abused child. Children, 1967, 14, 175-179.

Watson, J.B. Psychological care of infant and child. New York: Norton, 1928.

Weber, B. The Portage guide to home teaching. Portage, Wisconsin: Cooperative Educational Service Agency, 1975.

Weigle, J. Teaching child development to teenage mothers. Children Today, 1974.

Weikart, D., & Lambie, D. Preschool intervention through a home teaching program. In J. Hellmuth (Ed.) Disadvantage child. Seattle: Special Child Publications, 1968.

Weikart, D., Deloria, D., Lawson, S., & Wiegerink, R. Longitudinal results of the Ypsilanti Perry Preschool Project. Final report. Ypsilanti, Michigan: High/Scope Education Research Foundation, 1970 (ERIC Document Identification No. ED 044 576)

Whelan, E.M. & Higgins, G. K. Teenage childbearing: Extent and consequences. Washington D.C.: Consortium on Early Childbearing and Childrearing, 1973.

White, B.L. The first three years of life. Englewood Cliffs: Prentice-Hall, 1975.

White House Conference on Children, profiles of children. Washington, D.C.: U.S. Government Printing Office, 1970.

White, B.L. An experimental approach to the effects of experience on early human behavior, In. J.P. Hill (Ed.), Minnesota symposia on child psychology, 1966, 1. Minneapolis: University of Minnesota Press, pp.201-226.

APPENDIX A

Name _____

ANSWER SHEET

KNOWLEDGE OF CHILD DEVELOPMENT INVENTORY

DIRECTION: This is a test of knowledge of child development, from birth to age three. Read each question carefully. Mark the box you believe best answers the question. There is only one correct answer for each question.

For Example:

0. When children first begin to talk they usually

    a) speak in complete sentences;
    b) say simple words such as "Mama" or Dada";
    c) say things such as, "I'm hungry. Give me my bottle";
    d) use adjectives, adverbs and prepositions.

	a	b	c	d		a	b	c	d		a	b	c	d		a	b	c	d
0.	☐	☒	☐	☐															
1.	☐	☐	☐	☐	15.	☐	☐	☐	☐	29.	☐	☐	☐	☐	43.	☐	☐	☐	☐
2.	☐	☐	☐	☐	16.	☐	☐	☐	☐	30.	☐	☐	☐	☐	44.	☐	☐	☐	☐
3.	☐	☐	☐	☐	17.	☐	☐	☐	☐	31.	☐	☐	☐	☐	45.	☐	☐	☐	☐
4.	☐	☐	☐	☐	18.	☐	☐	☐	☐	32.	☐	☐	☐	☐	46.	☐	☐	☐	☐
5.	☐	☐	☐	☐	19.	☐	☐	☐	☐	33.	☐	☐	☐	☐	47.	☐	☐	☐	☐
6.	☐	☐	☐	☐	20.	☐	☐	☐	☐	34.	☐	☐	☐	☐	48.	☐	☐	☐	☐
7.	☐	☐	☐	☐	21.	☐	☐	☐	☐	35.	☐	☐	☐	☐	49.	☐	☐	☐	☐
8.	☐	☐	☐	☐	22.	☐	☐	☐	☐	36.	☐	☐	☐	☐	50.	☐	☐	☐	☐
9.	☐	☐	☐	☐	23.	☐	☐	☐	☐	37.	☐	☐	☐	☐	51.	☐	☐	☐	☐
10.	☐	☐	☐	☐	24.	☐	☐	☐	☐	38.	☐	☐	☐	☐	52.	☐	☐	☐	☐
11.	☐	☐	☐	☐	25.	☐	☐	☐	☐	39.	☐	☐	☐	☐	53.	☐	☐	☐	☐
12.	☐	☐	☐	☐	26.	☐	☐	☐	☐	40.	☐	☐	☐	☐	54.	☐	☐	☐	☐
13.	☐	☐	☐	☐	27.	☐	☐	☐	☐	41.	☐	☐	☐	☐	55.	☐	☐	☐	☐
14.	☐	☐	☐	☐	28.	☐	☐	☐	☐	42.	☐	☐	☐	☐	56.	☐	☐	☐	☐

<u>KNOWLEDGE OF CHILD DEVELOPMENT INVENTORY</u>

<u>EMOTIONAL DEVELOPMENT</u>

1. It is important for the infant's emotional development that his mother

   a) teaches him not to be afraid of anything;
   b) touches him, loves him and gives him attention;
   c) teaches him right from wrong;
   d) teaches him not to cry.

2. Which of the following is basic in the infant's emotional development?
   The development of

   a) a sense of patience;
   b) a sense of respect;
   c) a sense of fear;
   d) a sense of trust.

3. What type of care causes a fearful, mistrustful child?

   a) Spoiling the baby by always comforting or meeting the baby's needs;
   b) Insensitive, irregular care;
   c) How the baby is cared for does not really matter since babies are born with
      a natural tendency to trust;
   d) Any care outside the home, no matter how good, causes a fearful, mistrustful child.

4. A close relationship between a mother and child is <u>most</u> related to

   a) the number of hours spent together;
   b) the quality of the hours spent together;
   c) how many children are in the family;
   d) birth order, whether the child is oldest, middle, youngest or an only child.

5. When a child becomes about two years old he has an important need to

   a) become more independent and begin to do things for himself;
   b) remain dependent on his mother to do everything for him;
   c) learn to ride tricycles and color within lines;
   d) play games with a group of children.

6. A two year old boy has begun to say "no" when he is asked to put his toys away. This
   response

   a) shows that he is spoiled;
   b) is typical of a normal two year old child's development toward independence;
   c) shows that he has not been properly disciplined;
   d) should be ignored.

7. What might cause a young child to feel worthless?

   a) Allowing the child to follow his own interests;
   b) Allowing the child to make choices for himself;
   c) Using shame as a method to control the child;
   d) Being firm, but kind when correcting the child.

8. When a six month old baby cries whenever a stranger comes near, the mother should

   a) place the baby in the stranger's arms so that he overcomes his fears;
   b) ask her doctor about the problem because this is not a normal reaction;
   c) scold the baby since the child has to learn not to be afraid;
   d) direct attention away from the baby until he gets used to the stranger.

9. When a mother gives her baby new objects or toys, how would you expect the baby to respond?

   a) With no interest, because a baby only likes the familiar;
   b) With confusion, because the baby can learn only one thing at a time;
   c) With curiosity, because a baby enjoys exploring new things;
   d) With fear, because it is a natural reaction.

10. Shortly after the arrival of his baby sister, a three-year old boy begins refusing to feed and dress himself. His parents can best deal with the boy by

   a) explaining to him that he is a big boy and should act like one;
   b) not giving the child treats until he starts to do these things for himself again;
   c) promising him a special treat if he feeds or dresses himself;
   d) showing him more love and spending more time with him.

11. The keynote phrase of the two-year old is

   a) "Look at me."
   b) "Will you do this for me?"
   c) "Me do."
   d) "Leave me alone."

12. Cuddling and touching an infant

   a) is not very important in the first four weeks;
   b) is not very important after the first four weeks;
   c) is very important during the first four weeks and after;
   d) often will spoil the child.

13. If the child is to grow to be a happy, well-adjusted adult, he must

   a) be protected from all unpleasant emotions;
   b) learn to cope with unpleasant emotions;
   c) learn to cope with all emotions;
   d) experience only pleasant emotions.

14. The ability to respond emotionally

   a) does not appear until the baby recognizes strangers;
   b) appears in the newborn infant;
   c) is the result of learning;
   d) is the result of conditioning.

COGNITIVE DEVELOPMENT

15. What are typical behaviors of a newborn baby?

    a) Rolls over from his back to his stomach;
    b) Keeps his eyes shut because he cannot see;
    c) Gets up on his hands and knees;
    d) Watches things move and seeks the source of food.

16. What can family members do to help the young baby's development?

    a) Protect the child by keeping him in his crib;
    b) It is not necessary to do much of anything because the child will not learn until much later;
    c) Firmly correct the child each time he does something wrong;
    d) Talk to, change position, provide toys, cuddle, play with the baby.

17. Which of the following is true of early childhood experience?

    a) Only educational toys should be bought for young children;
    b) Children need to explore and examine all kinds of things;
    c) It does not really matter what they do because young children are too young to learn;
    d) Children should be kept in their cribs so they don't get hurt.

18. When the mother plays the game of peek-a-boo with her baby, it most helps the baby to

    a) understand that his mother will come back after she leaves;
    b) see better;
    c) learn to close his eyes;
    d) improve his fine motor control.

19. What should a parent do when the baby begins to crawl?

    a) The child should be allowed to play with any objects of interest;
    b) The child should be kept in his crib so he does not mess things up;
    c) The child should be spanked when he gets into things so that he learns not to bother things;
    d) Breakable and valuable things should be removed but interesting things should be left out for the child to play with.

20. What can family members do to help a young child's development?

    a) Allow the child to choose activities that interest him;
    b) Always choose the child's activities for him;
    c) Control the child's activities so that he doesn't become too independent;
    d) Family members need not do anything because a child is born either bright or dull.

21. When a child is interested in something, the mother should

    a) tell the child to discuss it with his father when he arrives home;
    b) pretend to listen to the child while going on with the important household work;
    c) attempt to understand the child and seriously listen to his thoughts;
    d) ignore the child so he learns not to interrupt her with his ideas.

22. What advice should a mother be given to help her improve her child's language?

    a) Restrict the child so that he does not hear improper language;
    b) Correct the child every time he says something wrong;
    c) Talk to the child and listen to the child;
    d) Have the child repeat sentences after her.

23. How does the idea that "children should be seen and not heard," relate to language development?

    a) It is correct because this is a teaching passed down through the generations;
    b) It is wrong because children should be listened to and talked to;
    c) It is correct because children do not need to be listened to and talked to;
    d) It does not really matter because children talk to each other.

24. A child's first sentences include a great many

    a) nouns;
    b) verbs;
    c) adverbs;
    d) prepositions.

25. Differences in the language development of young children are mainly due to

    a) differences in desire to speak;
    b) differences in motor development;
    c) opportunities for learning;
    d) the child's level of maturation.

26. The young child who chooses the plate of four cookies over a plate of two cookies is showing

    a) his ability to see similarities;
    b) his ability to see differences;
    c) his ability to understand numbers;
    d) his ability to count.

27. The first thing a child learns are usually

    a) tied to emotions;
    b) tied to dreams;
    c) tied to concrete things;
    d) tied to abstract things.

28. Of all the things shown to young infants, which of the following does he find the most interesting?

    a) A bull's eye;
    b) An oval target with dots;
    c) Stripes;
    d) A human face.

PHYSICAL DEVELOPMENT

29. Newborn babies do <u>not</u>

    a) smile;
    b) reach for objects;
    c) make stepping movements;
    d) thumb-suck.

30. How great are differences among newborn babies?

    a) No differences at all, all newborn babies are the same;
    b) Slight differences in heart rate, level of arousal, depth of sleep, hand mouth contact;
    c) Large differences in heart rate, level of arousal, depth of sleep, hand mouth contact;
    d) No two newborn babies are alike in any way.

31. The introduction of solid foods before three months in most babies

    a) is safe if limited to potato and gravy;
    b) may place strain upon the baby's kidneys;
    c) is much better for the baby than breast milk;
    d) is not related to being overweight later in life.

32. What does a baby learn to do first?

    a) Hit a mobile;
    b) Control his head;
    c) Roll over;
    d) Pull himself up.

33. Is it important for a young child to get plenty of restful sleep?

    a) Yes, it can make up for missed meals;
    b) Not really, however a sleeping child means relief for the mother;
    c) Yes, restful sleep is important for proper growth and behavior;
    d) No, restful sleep is not important for proper growth and behavior.

34. About how many hours does an infant sleep?

    a) 5;
    b) 8;
    c) 17;
    d) 23.

35. Does poor nutrition affect the young child?

    a) No, it really does not affect the child very much;
    b) Yes, but it can be made up later in life;
    c) Maybe, it depends on the child;
    d) Yes, it affects his growth and makes it easier for him to become ill.

36. When a two year old child pushes off his wet pants

    a) it indicates that the child is stubborn because he won't keep his diaper on;
    b) it is a sign that he is becoming aware of when he wets, and will soon be ready to learn to use the toilet;
    c) it is a sign that the child is too lazy to use the toilet;
    d) none of the above, a two year old should have already been toilet trained.

37. If parents of a young child slap his left hand when he uses it rather than his right hand, this

    a) will make sure the child is right handed when he gets older;
    b) will make no difference;
    c) might cause the child to be nervous about which hand to use and could even cause him to stutter;
    d) might cause the child to learn left from right, early in his development.

38. If a two year old child tries to push a spoon handle into the electrical outlet, the mother should

    a) let the baby push the spoon into the outlet so that he will get an electric shock;
    b) push the spoon into the outlet herself so that the baby will see what happens;
    c) explain to the child in great detail the dangers of electricity;
    d) stop the child immediately because he may be seriously injured.

39. Why is supervision important for young children?

    a) To correct misbehavior;
    b) To involve the mother in the child's activities;
    c) To prevent accidents;
    d) To keep the child busy with planned activities.

40. The meal most enjoyed by young children is

    a) breakfast;
    b) lunch;
    c) afternoon snack;
    d) dinner.

41. What is the most frequent cause of death for young children in the United States?

    a) Pneumonia;
    b) Accidents;
    c) Cancer;
    d) Measles.

42. The Moro Reflex is

    a) a strong grasp on anything placed in an infant's hand;
    b) the infant's lifting of his legs as if walking;
    c) a laughing response to being tickled;
    d) an infant's response to a loud noise.

SOCIAL DEVELOPMENT

43. If a two month old child smiles at everyone, even strangers, the mother should

    a) keep the child away from strangers;
    b) be concerned that the child is too trusting;
    c) realize this is normal and in time the child will recognize strangers;
    d) tell the child in a firm tone not to smile at strangers.

44. When the baby fingers his genitals, the mother should

    a) scold him;
    b) slap his hand;
    c) permit the child to explore his body;
    d) encourage the baby by fondling his genitals.

45. Why might temper outbursts increase as a baby approaches two years of age?

    a) Because he is becoming more dependent on others;
    b) Because he has a great need to do things for himself;
    c) Because the child is spoiled and used to getting his own way;
    d) Has nothing to do with age, it is just the way the baby is.

46. The young child needs

    a) harsh rules;
    b) rules that are clear and firm;
    c) no rules;
    d) rules that change often.

47. If two boys, both two years old, seem to push and hit when they play together, their mothers should

    a) never allow them to play together;
    b) before play begins threaten them with punishment if they push and hit;
    c) realize that this is normal behavior for two year olds;
    d) be concerned that the boys are overly aggressive.

48. If two girls, both two years old, play side by side rather than with each other, their mother should

    a) be concerned that something is the matter with the girls;
    b) tell the girls to play together;
    c) have an older girl join the girls to show them how to play with each other;
    d) realize that this type of play is normal for their age.

49. When a three year old child misbehaves his mother should

    a) shame him and remove the child from the situation;
    b) compare his behavior with others;
    c) spank and remove the child from the situation;
    d) firmly, but calmly remind him of the rules and if he then continues, remove the child from the situation.

SOCIAL DEVELOPMENT

43. If a two month old child smiles at everyone, even strangers, the mother should

    a) keep the child away from strangers;
    b) be concerned that the child is too trusting;
    c) realize this is normal and in time the child will recognize strangers;
    d) tell the child in a firm tone not to smile at strangers.

44. When the baby fingers his genitals, the mother should

    a) scold him;
    b) slap his hand;
    c) permit the child to explore his body;
    d) encourage the baby by fondling his genitals.

45. Why might temper outbursts increase as a baby approaches two years of age?

    a) Because he is becoming more dependent on others;
    b) Because he has a great need to do things for himself;
    c) Because the child is spoiled and used to getting his own way;
    d) Has nothing to do with age, it is just the way the baby is.

46. The young child needs

    a) harsh rules;
    b) rules that are clear and firm;
    c) no rules;
    d) rules that change often.

47. If two boys, both two years old, seem to push and hit when they play together, their mothers should

    a) never allow them to play together;
    b) before play begins threaten them with punishment if they push and hit;
    c) realize that this is normal behavior for two year olds;
    d) be concerned that the boys are overly aggressive.

48. If two girls, both two years old, play side by side rather than with each other, their mother should

    a) be concerned that something is the matter with the girls;
    b) tell the girls to play together;
    c) have an older girl join the girls to show them how to play with each other;
    d) realize that this type of play is normal for their age.

49. When a three year old child misbehaves his mother should

    a) shame him and remove the child from the situation;
    b) compare his behavior with others;
    c) spank and remove the child from the situation;
    d) firmly, but calmly remind him of the rules and if he then continues, remove the child from the situation.

50. In dealing with anger in their toddlers, parents can best help their children to develop self-control by

    a) giving choices within firm limits;
    b) giving plenty of opportunities for expressing anger;
    c) ignoring angry outbursts;
    d) punishing lightly but consistently after each outburst.

51. The following statement is true.

    a) The sooner toilet training is begun the less time it will take;
    b) Punishment and scolding shorten the time needed to complete toilet training;
    c) When toilet training is begun is not important;
    d) Children toilet trained after the age of 20 months tend to learn quickly.

52. Parallel play means that

    a) the children are not aware of each other's presence;
    b) the children play the same activity side by side, but independently;
    c) the children play together cooperatively;
    d) the child plays alone.

53. Cooperation

    a) appears in children's play by the time they are two years of age;
    b) is best developed by strict child-training methods;
    c) is uncommon in young children because they are too self-centered to cooperate with others;
    d) is uncommon in many young children because their parents do too much for them.

54. Aggression in young children is

    a) always provoked by others;
    b) usually unprovoked by others;
    c) always in the form of physical attacks on others;
    d) usually in the form of verbal attacks.

55. Early social experiences are

    a) more important in the home than outside the home;
    b) more important outside the home than in the home;
    c) limited to the mother;
    d) more important with peers.

56. Conformity to group expectations

    a) is unimportant;
    b) is best achieved by strict child training;
    c) is necessary for the socialization of the child;
    d) is best achieved by waiting until the child is older than four years of age.

APPENDIX B

EXPERT RATER QUESTIONNAIRE

Directions: The following questions make up a draft of a proposed instrument being developed to measure knowledge of child development from birth through three years of age. The instrument is designed to be used with adolescents as young as fifteen years of age to determine the extent of individuals' knowledge of child development.

With these criteria in mind, use the provided form to: a) rate each question for its readability and form on a scale ranging from excellent to poor and b) rate each of the four sections (emotional, cognitive, physical and social development from birth through three years of age) for their completeness of coverage of the subject area on a scale ranging from strongly agree to strongly disagree. Suggestions regarding the items will be appreciated.

The items for this instrument have been developed from a table of specifications. The table was constructed after analyzing twelve widely used college level textbooks and six widely used high school textbooks in child development, reviewing the curriculum materials for the federally sponsored "Education for Parenthood Program" and the Public Broadcasting Service series "Footsteps." In addition, the Parent Magazine filmstrip series "How An Average Child Behaves - From Birth to Age Five" and "The First 18 Months: Infant To Toddler" were reviewed. The Systematic Training For Effective Parenting (STEP) and the Parent Effectiveness Program (P. E. T.) were also reviewed. Finally, approximately fifteen books written for the general public on parenting and child development were reviewed. A copy of the table of specifications has been included for your reference.

EXPERT RATER QUESTIONNAIRE

Completeness
of
Coverage

SCALE FOR READABILITY AND FORM

	Excellent	Good	Adequate	Poor	Excellent	Good	Adequate	Poor	Excellent	Good	Adequate	Poor	Excellent	Good	Adequate	Poor	Excellent	Good	Adequate	Poor	Excellent	Good	Adquate	Poor
EMOTIONAL	1				2				3				4				5				TOTAL			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	6				7				8				9				10							
DEVELOPMENT	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
COGNITIVE	1				2				3				4				5				TOTAL			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	6				7				8				9				10							
DEVELOPMENT	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PHYSICAL	1				2				3				4				5				TOTAL			
	==	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	6				7				8				9				10							
DEVELOPMENT	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
SOCIAL	1				2				3				4				5				TOTAL			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	6				7				8				9				10							
DEVELOPMENT	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

APPENDIX C

ITEM ANALYSIS OF THE KCDI

EMOTIONAL DEVELOPMENT		COGNITIVE DEVELOPMENT		PHYSICAL DEVELOPMENT		SOCIAL DEVELOPMENT	
Item No.	Item Difficulty	Item No.	Item Difficulty	Item No.	Item Difficulty	Item No.	Item Difficulty
1.	1.00	15.	.60	29.	.40	43.	1.00
2.	1.00	16.	.80	30.	.20	44.	1.00
3.	.76	17.	.84	31.	.60	45.	.84
4.	1.00	18.	.36	32.	.68	46.	.96
5.	.84	19.	.84	33.	1.00	47.	.72
6.	.84	20.	1.00	34.	.56	48.	.92
7.	.80	21.	.80	35.	1.00	49.	.88
8.	.80	22.	1.00	36.	.88	50.	.60
9.	.84	23.	.80	37.	.68	51.	.60
10.	.76	24.	.84	38.	.84	52.	.80
11.	.68	25.	.84	39.	.56	53.	.56
12.	.80	26.	.28	40.	.52	54.	.36
13.	.60	27.	.64	41.	.76	55.	.60
14.	.44	28.	.84	42.	.40	56.	.64
	11.16		10.48		9.08		10.48
	$\overline{X} = .79$		$\overline{X} = .75$		$\overline{X} = .65$		$\overline{X} = .75$

APPENDIX D

CRITERION VALIDITY

Criterion Raw Score (83)					KCDI Raw Scores (56)	
x	$x-\bar{x}=x$	x^2	$x'y$	y^2	$y-\bar{y}=y$	y
1. 66	7	49	14	4	2	45
2. 66	7	49	14	4	2	45
3. 65	6	36	36	36	6	49
4. 65	6	36	24	16	4	47
5. 65	6	36	30	25	5	48
6. 63	4	16	4	1	1	44
7. 63	4	16	4	1	1	44
8. 63	4	16	16	16	4	39
9. 62	3	3	9	9	3	46
10. 60	1	1	1	1	1	44
11. 60	1	1	3	9	-3	40
12. 59	0	0	0	36	-6	37
13. 59	0	0	0	4	2	45
14. 59	0	0	0	36	6	49
15. 58	-1	1	2	4	2	45
16. 58	-1	1	4	16	4	47
17. 57	-2	4	4	4	2	45
18. 57	-2	4	0	0	0	43
19. 56	-3	9	9	9	-3	40
20. 54	-5	25	15	9	-3	40
21. 54	-5	25	0	0	0	43
22. 49	-10	100	60	36	-6	37
23. 49	-10	100	60	36	-6	37
24. 48	-11	121	99	81	-9	34

x 1415 x^2 655 xy 408 y^2 393   y 1033

$\bar{x}=59$ $\bar{y}=43$

$rxy = .80416$

APPENDIX E

133

COEFFICIENT ALPHA RELIABILITY

Item No.	Item Difficulty x	x^2	Item No.	Item Difficulty x	x^2	Subjects	Raw Score x	$x-\bar{x}=x$	x^2
1.	1.00	1.0	29.	.40	.16	1.	45	2	4
2.	1.00	1.0	30.	.20	.04	2.	45	2	4
3.	.76	.5776	31.	.60	.36	3.	49	6	36
4.	1.00	1.0	32.	.68	.4624	4.	47	4	16
5.	.84	.7056	33.	1.00	1.0	5.	48	5	25
6.	.84	.7056	34.	.56	.3136	6.	44	1	1
7.	.80	.64	35.	1.00	1.0	7.	44	1	1
8.	.80	.64	36.	.88	.7744	8.	39	-4	16
9.	.84	.7056	37.	.68	.4624	9.	46	3	9
10.	.76	.5576	38.	.84	.7056	10.	44	1	1
11.	.68	.4624	39.	.56	.3136	11.	40	-3	9
12.	.80	.64	40.	.52	.2704	12.	37	-6	36
13.	.60	.36	41.	.76	.5776	13.	45	2	4
14.	.44	.1936	42.	.40	.16	14.	49	6	36
15.	.60	.36	43.	1.00	1.0	15.	45	2	4
16.	.80	.64	44.	1.00	1.0	16.	47	4	16
17.	.84	.7056	45.	.84	.7056	17.	45	2	4
18.	.36	.1206	46.	.96	.9216	18.	43	0	0
19.	.84	.7056	47.	.72	.5184	19.	40	-3	9
20.	1.00	1.0	48.	.92	.9216	20.	40	-3	9
21.	.80	.64	49.	.88	.7744	21.	43	0	0
22.	1.00	1.0	50.	.60	.36	22.	37	-6	36
23.	.80	.64	51.	.60	.36	23.	37	-6	36
24.	.84	.7056	52.	.80	.64	24.	34	-9	81
25.	.84	.7056	53.	.56	.3136		1033		393
26.	.28	.0784	54.	.36	.1296				
27.	.64	.4096	55.	.60	.36				
28.	.84	.7056	56.	.64	.4096		$x=43$		
		17.6136			15.0144				

32.628

Alpha $r_{11}= .9335$

APPENDIX F

December 17, 1979

Dear Parents:

I am currently completing my doctorate in educational psychology at Loyola
University of Chicago and I would like to request permission for your daughter
to participate in a study that I am conducting in the Child Development classes
at Homewood-Flossmor High School.
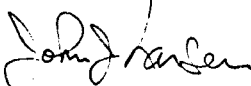
This study will investigate the differences among female participants' attitudes
toward parenting, their knowledge of child development and their level of social-
emotional maturity. The participants will be tested for 1) attitudes toward
parenting by the Adult/Adolescent Parenting Inventory, 2) knowledge of child
development by the Knowledge of Child Development Inventory and 3) level of
social-emotional maturity by the California Psychological Inventory.

These multiple choice tests would be taken during Mrs. Geraldine Bayles' child
development course with neither the participation nor results affecting the class
outcome or grade. The testing will be conducted Monday, January 7, 1980 and
Monday, January 14, 1980.

Be assured the information will be kept in strict confidentiality. If you have any
further questions regarding the study, please telephone me at my home (747-5312).
Or, if you prefer, Mrs. Bayles will be able to answer questions that you may have.

Would you please sign the attached permission slip and have your daughter return
it to school by December 21, 1979.

Sincerely,

John J. Larsen

JJL/kam
Attach.

PARENT'S CONSENT FORM

Project Title: The Relationship Between Knowledge of Child Development and
Level of Social-Emotional Maturity As Interacting Variables
Affecting Attitudes Toward Parenting.

I, the parent or guardian of _____, a minor _____ years

of age, consent to her participation in a program of research being conducted by

John J. Larsen during the 1979-80 academic school year.

I understand that no risk is involved and that I may withdraw my child from

participation at any time.

_____
(Signature of Parent)

_____
(Signature of Participant)

_____
(Date)

APPENDIX G

BACKGROUND INFORMATION

Direction: In order to more fully understand attitudes toward parenting we would appreciate the following information about you and your family. Please write your answers in the spaces provided.

1. Are you female? Yes _____ No _____

2. How old were you on your last birthday? _____

3. What is your race? American Indian _____, Asian _____, Black _____, Spanish _____, White _____, or Other _____.

4. Have you ever taken a high school course in Child Development? Yes _____ No _____

5. Have you ever taken a college course in Child Development? Yes _____ No _____

6. Have you ever participated in an organized group or class to study parenting? Yes _____ No _____

7. Are you or have you been a babysitter? Yes _____ No _____. If yes, were the children younger than four years of age? Yes _____ No _____. If yes, frequently or a few times? _____

8. Do you or while you were growing up live at home with both of your parents? Yes _____ No _____

9. Do you have an older sister or sisters? _____. List her or their age(s):

_____

10. Do you have an older brother or brothers? _____. List his or their age(s):

_____

11. Do you have a younger sister or sisters? _____. List her or their age(s):

_____

12. Do you have a younger brother or brothers? _____. List his or their age(s):

_____

13. Do you have children of your own? _____. List your child's or children's age(s):

_____

APPENDIX H

California Psychological Inventory

HARRISON G. GOUGH, Ph.D.

DIRECTIONS:

This booklet contains a series of statements. Read each one, decide how you feel about it, and then mark your answer *on the special answer sheet.* MAKE NO MARKS ON THE TEST BOOKLET. If you *agree* with a statement, or feel that it is true about you, answer TRUE. If you *disagree* with a statement, or feel that it is not true about you, answer FALSE.

If you find a few questions which you cannot or prefer not to answer, they may be omitted. However, in marking your answers on the answer sheet, make sure that the number of the statement is the same as the number on the answer sheet.

CONSULTING PSYCHOLOGISTS PRESS INC
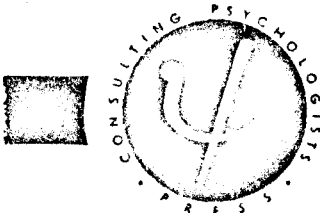
TRADEMARK

1. I enjoy social gatherings just to be with people.

2. The only interesting part of the newspaper is the "funnies."

3. I looked up to my father as an ideal man.

4. A person needs to "show off" a little now and then.

5. Our thinking would be a lot better off if we would just forget about words like "probably," "approximately," and "perhaps."

6. I have a very strong desire to be a success in the world.

7. When in a group of people I usually do what the others want rather than make suggestions.

8. I liked "Alice in Wonderland" by Lewis Carroll.

9. I usually go to the movies more than once a week.

10. Some people exaggerate their troubles in order to get sympathy.

11. People can pretty easily change me even though I thought that my mind was already made up on a subject.

12. I often feel that I made a wrong choice in my occupation.

13. I am very slow in making up my mind.

14. I always follow the rule: business before pleasure.

15. Several times a week I feel as if something dreadful is about to happen.

16. There's no use in doing things for people; you only find that you get it in the neck in the long run.

17. I would like to be a journalist.

18. A person who doesn't vote is not a good citizen.

19. I think I would like the work of a building contractor.

20. I have had very peculiar and strange experiences.

21. My daily life is full of things that keep me interested.

22. When a person "pads" his income tax report so as to get out of some of his taxes, it is just as bad as stealing money from the government.

23. In most ways the poor man is better off than the rich man.

24. I always like to keep my things neat and tidy and in good order.

25. Clever, sarcastic people make me feel very uncomfortable.

26. It's a good thing to know people in the right places so you can get traffic tags, and such things, taken care of.

27. It makes me feel like a failure when I hear of the success of someone I know well.

28. I think I would like the work of a dress designer.

29. I am often said to be hotheaded.

30. I gossip a little at times.

31. I doubt whether I would make a good leader.

32. I tend to be on my guard with people who are somewhat more friendly than I had expected.

33. Usually I would prefer to work with women.

34. There are a few people who just cannot be trusted.

35. I become quite irritated when I see someone spit on the sidewalk.

36. When I was going to school I played hooky quite often.

37. I have very few fears compared to my friends.

38. It is hard for me to start a conversation with strangers.

39. I must admit that I enjoy playing practical jokes on people.

40. I get very nervous if I think that someone is watching me.

41. For most questions there is just one right answer, once a person is able to get all the facts.

42. I sometimes pretend to know more than I really do.

43. It's no use worrying my head about public affairs: I can't do anything about them anyhow.

44. Sometimes I feel like smashing things.

45. As a child I used to be able to go to my parents with my problems.

46. I think I would like the work of a school teacher.

47. Women should not be allowed to drink in cocktail bars.

48. Most people would tell a lie if they could gain by it.

49. When someone does me a wrong I feel I should pay him back if I can, just for the principle of the thing.

50. I seem to be about as capable and smart as most others around me.

51. Every family owes it to the city to keep their sidewalks cleared in the winter and their lawn mowed in the summer.

52. I usually take an active part in the entertainment at parties.

53. I think I would enjoy having authority over other people.

54. I find it hard to keep my mind on a task or job.

55. Some of my family have quick tempers.

56. I hate to be interrupted when I am working on something.

57. I have sometimes stayed away from another person because I feared doing or saying something that I might regret afterwards.

58. I get very tense and anxious when I think other people are disapproving of me.

59. The trouble with many people is that they don't take things seriously enough.

60. I have often met people who were supposed to be experts who were no better than I.

61. I liked school.

62. I think Lincoln was greater than Washington.

63. It is always a good thing to be frank.

64. A windstorm terrifies me.

65. I think I would like the work of a clerk in a large department store.

66. Sometimes I feel like swearing.

67. I feel sure that there is only one true religion.

68. I am embarrassed by dirty stories.

69. I would disapprove of anyone's drinking to the point of intoxication at a party.

70. Sometimes I cross the street just to avoid meeting someone.

71. I get excited very easily.

72. I used to keep a diary.

73. Maybe some minority groups do get rough treatment, but it's no business of mine.

74. It is very hard for me to tell anyone about myself.

75. We ought to worry about our own country and let the rest of the world take care of itself.

76. I often feel as if the world was just passing me by.

77. When I get bored I like to stir up some excitement.

78. I like to boast about my achievements every now and then.

79. I am afraid of deep water.

80. There have been times when I have been very angry.

81. I must admit I often try to get my own way regardless of what others may want.

82. I think I would like the work of a garage mechanic.

83. I usually feel nervous and ill at ease at a formal dance or party.

84. I have at one time or another in my life tried my hand at writing poetry.

85. I don't like to undertake any project unless I have a pretty good idea as to how it will turn out.

86. Most of the arguments or quarrels I get into are over matters of principle.

87. I like adventure stories better than romantic stories.

88. I do not like to see people carelessly dressed.

89. Once a week or oftener I feel suddenly hot all over, without apparent cause.

90. As long as a person votes every four years, he has done his duty as a citizen.

91. Sometimes I think of things too bad to talk about.

92. People often expect too much of me.

93. I would do almost anything on a dare.

94. With things going as they are, it's pretty hard to keep up hope of amounting to something.

95. The idea of doing research appeals to me.

96. I take a rather serious attitude toward ethical and moral issues.

97. I would like the job of a foreign correspondent for a newspaper.

98. People today have forgotten how to feel properly ashamed of themselves.

99. I cannot keep my mind on one thing.

100. I prefer a shower to a bathtub.

101. I must admit that I often do as little work as I can get by with.

102. I like to be the center of attention.

103. I like to listen to symphony orchestra concerts on the radio.

104. I would like to see a bullfight in Spain.

105. I am fascinated by fire.

106. The average person is not able to appreciate art and music very well.

107. I can be friendly with people who do things which I consider wrong.

108. I have no dread of going into a room by myself where other people have already gathered and are talking.

109. I get pretty discouraged sometimes.

110. The thought of being in an automobile accident is very frightening to me.

111. When in a group of people I have trouble thinking of the right things to talk about.

112. I set a high standard for myself and I feel others should do the same.

113. School teachers complain a lot about their pay, but it seems to me that they get as much as they deserve.

114. At times I feel like picking a fist fight with someone.

115. Sometimes I have the same dream over and over.

116. It is annoying to listen to a lecturer who cannot seem to make up his mind as to what he really believes.

117. I don't blame anyone for trying to grab all he can get in this world.

118. I believe we are made better by the trials and hardships of life.

119. Planning one's activities in advance is very likely to take most of the fun out of life.

120. I do not always tell the truth.

121. I was a slow learner in school.

122. I like poetry.

123. I think I am stricter about right and wrong than most people.

124. I am likely not to speak to people until they speak to me.

125. There is something wrong with a person who can't take orders without getting angry or resentful.

126. I do not dread seeing a doctor about a sickness or injury.

127. I always try to consider the other fellow's feelings before I do something.

128. It takes a lot of argument to convince most people of the truth.

129. I think I would like to drive a racing car.

130. Sometimes without any reason or even when things are going wrong I feel excitedly happy, "on top of the world."

131. One of my aims in life is to accomplish something that would make my mother proud of me.

132. I fall in and out of love rather easily.

133. I feel as good now as I ever have.

134. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of thing.

135. I wake up fresh and rested most mornings.

136. Most people make friends because friends are likely to be useful to them.

137. I wish I were not bothered by thoughts about sex.

138. I seldom or never have dizzy spells.

139. It is all right to get around the law if you don't actually break it.

140. I enjoy hearing lectures on world affairs.

141. Parents are much too easy on their children nowadays.

142. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it.

143. I like to be with a crowd who play jokes on one another.

144. I am somewhat afraid of the dark.

145. I have a tendency to give up easily when I meet difficult problems.

146. I would like to wear expensive clothes.

147. I certainly feel useless at times.

148. I believe women should have as much sexual freedom as men.

149. I consider a matter from every standpoint before I make a decision.

150. Criticism or scolding makes me very uncomfortable.

151. I have strange and peculiar thoughts.

152. I read at least ten books a year.

153. If I am not feeling well I am somewhat cross and grouchy.

154. I like tall women.

155. A person should adapt his ideas and his behavior to the group that happens to be with him at the time.

156. I hardly ever get excited or thrilled.

157. I have the wanderlust and am never happy unless I am roaming or traveling about.

158. I frequently notice my hand shakes when I try to do something.

159. I feel nervous if I have to meet a lot of people.

160. I would like to hear a great singer in an opera.

161. I am sometimes cross and grouchy without any good reason.

162. Every citizen should take the time to find out about national affairs, even if it means giving up some personal pleasures.

163. I like parties and socials.

164. My parents have often disapproved of my friends.

165. I do not mind taking orders and being told what to do.

166. In school I always looked far ahead in planning what courses to take.

167. I should like to belong to several clubs or lodges.

168. My home life was always happy.

169. Teachers often expect too much work from the students.

170. I often act on the spur of the moment without stopping to think.

171. I think I could do better than most of the present politicians if I were in office.

172. I do not have a great fear of snakes.

173. My way of doing things is apt to be misunderstood by others.

174. I never make judgments about people until I am sure of the facts.

175. I have had blank spells in which my activities were interrupted and I did not know what was going on around me.

176. I commonly wonder what hidden reason another person may have for doing something nice for me.

177. I am certainly lacking in self-confidence.

178. Most people are secretly pleased when someone else gets into trouble.

179. When I work on a committee I like to take charge of things.

180. My parents have generally let me make my own decisions.

181. I always tried to make the best school grades that I could.

182. I would rather go without something than ask for a favor.

183. Sometimes I feel as if I must injure either myself or someone else.

184. I have had more than my share of things to worry about.

185. I often do whatever makes me feel cheerful here and now, even at the cost of some distant goal.

186. I usually don't like to talk much unless I am with people I know very well.

187. I am inclined to take things hard.

188. I am quite often not in on the gossip and talk of the group I belong to.

189. In school my marks in deportment were quite regularly bad.

190. Only a fool would ever vote to increase his own taxes.

191. I can remember "playing sick" to get out of something.

192. When I meet a stranger I often think that he is better than I am.

193. I would be ashamed not to use my privilege of voting.

194. I like to keep people guessing what I'm going to do next.

195. The most important things to me are my duties to my job and to my fellowman.

196. I think I would like to fight in a boxing match sometime.

197. Once in a while I laugh at a dirty joke.

198. Before I do something I try to consider how my friends will react to it.

199. I would like to be a soldier.

200. In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well.

201. I have no patience with people who believe there is only one true religion.

202. If given the chance I would make a good leader of people.

203. When things go wrong I sometimes blame the other fellow.

204. I like to plan a home study schedule and then follow it.

205. I enjoy a race or game better when I bet on it.

206. I have often found people jealous of my good ideas, just because they had not thought of them first.

207. Sometimes at elections I vote for men about whom I know very little.

208. I like to go to parties and other affairs where there is lots of loud fun.

209. Most people are honest chiefly through fear of being caught.

210. I very much like hunting.

211. I have frequently found myself, when alone, pondering such abstract problems as freewill, evil, etc.

212. I have never been in trouble with the law.

213. It makes me angry when I hear of someone who has been wrongly prevented from voting.

214. In school I was sometimes sent to the principal for cutting up.

215. I would like to write a technical book.

216. At times I have worn myself out by undertaking too much.

217. I think I would like the work of a librarian.

218. I love to go to dances.

219. Most people inwardly dislike putting themselves out to help other people.

220. I feel uneasy indoors.

221. People have a real duty to take care of their aged parents, even if it means making some pretty big sacrifices.

222. I would like to belong to a discussion and study club.

223. I keep out of trouble at all costs.

224. I usually expect to succeed in things I do.

225. People pretend to care more about one another than they really do.

226. Most people worry too much about sex.

227. It is hard for me to find anything to talk about when I meet a new person.

228. I like to read about history.

229. I much prefer symmetry to asymmetry.

230. I would rather be a steady and dependable worker than a brilliant but unstable one.

231. I am apt to show off in some way if I get the chance.

232. Sometimes I feel that I am about to go to pieces.

233. A person does not need to worry about other people if only he looks after himself.

234. We ought to pay our elected officials better than we do.

235. I can honestly say that I do not really mind paying my taxes because I feel that's one of the things I can do for what I get from the community.

236. I am so touchy on some subjects that I can't talk about them.

237. The future is too uncertain for a person to make serious plans.

238. Sometimes I just can't seem to get going.

239. I like to talk before groups of people.

240. I would like to be a nurse.

241. The man who provides temptation by leaving valuable property unprotected is about as much to blame for its theft as the one who steals it.

242. I am a good mixer.

243. I am often bothered by useless thoughts which keep running through my mind.

244. If I were a reporter I would like very much to report news of the theater.

245. Most of the time I feel happy.

246. I like to plan out my activities in advance.

247. When a man is with a woman he is usually thinking about things related to her sex.

248. I must admit that I have a bad temper, once I get angry.

249. I like mechanics magazines.

250. I must admit I find it very hard to work under strict rules and regulations.

251. I like large, noisy parties.

252. I sometimes feel that I am a burden to others.

253. When prices are high you can't blame a person for getting all he can while the getting is good.

254. I have never deliberately told a lie.

255. Only a fool would try to change our American way of life.

256. I want to be an important person in the community.

257. I often feel as though I have done something wrong or wicked.

258. In school I found it very hard to talk before the class.

259. I usually feel that life is worthwhile.

260. I always try to do at least a little better than what is expected of me.

261. We ought to let Europe get out of its own mess; it made its bed, let it lie in it.

262. There have been a few times when I have been very mean to another person.

263. Lawbreakers are almost always caught and punished.

264. I would be very unhappy if I was not successful at something I had seriously started to do.

265. I dread the thought of an earthquake.

266. I think most people would lie to get ahead.

267. I am a better talker than a listener.

268. At times I have been very anxious to get away from my family.

269. I like science.

270. I often lose my temper.

271. My parents were always very strict and stern with me.

272. I must admit I feel sort of scared when I move to a strange place.

273. I am bothered by people outside, on streetcars, in stores, etc., watching me.

274. I'm pretty sure I know how we can settle the international problems we face today.

275. Sometimes I rather enjoy going against the rules and doing things I'm not supposed to.

276. I have very few quarrels with members of my family.

277. I have no fear of water.

278. If I get too much change in a store, I always give it back.

279. I often get disgusted with myself.

280. I enjoy many different kinds of play and recreation.

281. Society owes a lot more to the businessman and the manufacturer than it does to the artist and the professor.

282. A large number of people are guilty of bad sexual conduct.

283. I like to read about science.

284. It is hard for me to act natural when I am with new people.

285. I refuse to play some games because I am not good at them.

286. I have never done anything dangerous for the thrill of it.

287. I think I would like to belong to a singing club.

288. As a youngster I was suspended from school one or more times for cutting up.

289. There have been times when I have worried a lot about something that was not really important.

290. I have never been in trouble because of my sex behavior.

291. I think I would like to belong to a motorcycle club.

292. I used to like it very much when one of my papers was read to the class in school.

293. Every now and then I get into a bad mood, and no one can do anything to please me.

294. I feel that I have often been punished without cause.

295. I would be willing to give money myself in order to right a wrong, even though I was not mixed up in it in the first place.

296. I would like to be an actor on the stage or in the movies.

297. At times I have a strong urge to do something harmful or shocking.

298. I often get feelings like crawling, burning, tingling, or "going to sleep" in different parts of my body.

299. I don't seem to care what happens to me.

300. Police cars should be especially marked so that you can always see them coming.

301. I am afraid to be alone in the dark.

302. I have often gone against my parents' wishes.

303. We should cut down on our use of oil, if necessary, so that there will be plenty left for the people fifty or a hundred years from now.

304. When the community makes a decision, it is up to a person to help carry it out even if he had been against it.

305. I often wish people would be more definite about things.

306. I have nightmares every few nights.

307. If I am driving a car, I try to keep others from passing me.

308. I have a great deal of stomach trouble.

309. I have been afraid of things or people that I knew could not hurt me.

310. I would rather have people dislike me than look down on me.

311. I cannot do anything well.

312. Any man who is able and willing to work hard has a good chance of succeeding.

313. I hardly ever feel pain in the back of the neck.

314. I must admit I try to see what others think before I take a stand.

315. People should not have to pay taxes for the schools if they do not have children.

316. My parents wanted me to "make good" in the world.

317. I often think about how I look and what impression I am making upon others.

318. When I was a child I didn't care to be a member of a crowd or gang.

319. In a group, I usually take the responsibility for getting people introduced.

320. I would be willing to describe myself as a pretty "strong" personality.

321. I almost never go to sleep.

322. I do not like to loan my things to people who are careless in the way they take care of them.

323. I have never done any heavy drinking.

324. Voting is nothing but a nuisance.

325. When I am feeling very happy and active, someone who is blue or low will spoil it all.

326. It is annoying to listen to a lecturer who cannot seem to make up his mind as to what he really believes.

327. I find it easy to "drop" or "break with" a friend.

328. I find that a well-ordered mode of life with regular hours is congenial to my temperament.

329. It is hard for me to sympathize with someone who is always doubting and unsure about things.

330. Everything tastes the same.

331. I often start things I never finish.

332. I could be perfectly happy without a single friend.

333. Education is more important than most people think.

334. I get nervous when I have to ask someone for a job.

335. There are times when I act like a coward.

336. Sometimes I used to feel that I would like to leave home.

337. Much of the time my head seems to hurt all over.

338. I never worry about my looks.

339. I have been in trouble one or more times because of my sex behavior.

340. Our thinking would be a lot better off if we would just forget about words like "probably," "approximately," and "perhaps."

341. My people treat me more like a child than a grown-up.

342. Some people exaggerate their troubles in order to get sympathy.

343. In school most teachers treated me fairly and honestly.

344. I am made nervous by certain animals.

345. I go out of my way to meet trouble rather than try to escape it.

346. I must admit I am a pretty fair talker.

347. I never make judgments about people until I am sure of the facts.

348. I usually try to do what is expected of me, and to avoid criticism.

349. If a person is clever enough to cheat someone out of a large sum of money, he ought to be allowed to keep it.

350. A person should not be expected to do anything for his community unless he is paid for it.

351. Some of my family have habits that bother and annoy me very much.

352. I must admit I have no great desire to learn new things.

353. No one seems to understand me.

354. A strong person will be able to make up his mind even on the most difficult questions.

355. I have strong political opinions.

356. I seldom worry about my health.

357. For most questions there is just one right answer, once a person is able to get all the facts.

358. I dream frequently about things that are best kept to myself.

359. I think I am usually a leader in my group.

360. It is impossible for an honest man to get ahead in the world.

361. I like to have a place for everything and everything in its place.

362. I have never seen a vision.

363. I don't like to work on a problem unless there is the possibility of coming out with a clear-cut and unambiguous answer.

364. It bothers me when something unexpected interrupts my daily routine.

365. The future seems hopeless to me.

366. I never seem to get hungry.

367. My home life was always very pleasant.

368. I have had no difficulty starting or holding my urine.

369. I seem to do things that I regret more often than other people do.

370. Disobedience to any government is never justified.

371. I would rather be a steady and dependable worker than a brilliant but unstable one.

372. I have reason for feeling jealous of one or more members of my family.

373. My table manners are not quite as good at home as when I am out in company.

374. I would never go out of my way to help another person if it meant giving up some personal pleasure.

375. There are certain people whom I dislike so much that I am inwardly pleased when they are catching it for something they have done.

376. I enjoy planning things, and deciding what each person should do.

377. Most of the arguments or quarrels I get into are over matters of principle.

378. I doubt if anyone is really happy.

379. I would rather not have very much responsibility for other people.

380. I am known as a hard and steady worker.

381. My mouth feels dry almost all the time.

382. Success is a matter of will power.

383. I usually have to stop and think before I act even in trifling matters.

384. Most people would be better off if they never went to school at all.

385. It is pretty easy for people to win arguments with me.

386. I know who is responsible for most of my troubles.

387. I don't like things to be uncertain and unpredictable.

388. When I am cornered I tell that portion of the truth which is not likely to hurt me.

389. I get pretty discouraged with the law when a smart lawyer gets a criminal free.

390. I have not lived the right kind of life.

391. I am quite a fast reader.

392. I daydream very little.

393. I have used alcohol excessively.

394. Even when I have gotten into trouble I was usually trying to do the right thing.

395. It is very important to me to have enough friends and social life.

396. I sometimes wanted to run away from home.

397. Once I have my mind made up I seldom change it.

398. Life usually hands me a pretty raw deal.

399. At times I have been so entertained by the cleverness of a crook that I have hoped he would get by with it.

400. I think I am stricter about right and wrong than most people.

401. Most young people get too much education.

402. I have had attacks in which I could not control my movements or speech, but in which I knew what was going on around me.

403. I have a natural talent for influencing people.

404. I am in favor of a very strict enforcement of all laws, no matter what the consequences.

405. People often talk about me behind my back.

406. I have one or more bad habits which are so strong that it is no use fighting against them.

407. I have had no difficulty in starting or holding my bowel movement.

408. I always see to it that my work is carefully planned and organized.

409. I would never play cards (poker) with a stranger.

410. I regard the right to speak my mind as very important.

411. I am bothered by acid stomach several times a week.

412. I like to give orders and get things moving.

413. I get all the sympathy I should.

414. I do not read every editorial in the newspaper every day.

415. I have felt embarrassed over the type of work that one or more members of my family have done.

416. I don't think I'm quite as happy as others seem to be.

417. Any job is all right with me, so long as it pays well.

418. I am embarrassed with people I do not know well.

419. It often seems that my life has no meaning.

420. I used to steal sometimes when I was a youngster.

421. I don't really care whether people like me or dislike me.

422. I feel like giving up quickly when things go wrong.

423. If people had not had it in for me I would have been much more successful.

424. The one to whom I was most attached and whom I most admired as a child was a woman (mother, sister, aunt, or other woman).

425. I have often felt guilty because I have pretended to feel more sorry about something than I really was.

426. There have been times when I have been very angry.

427. There are a few people who just cannot be trusted.

428. My home as a child was less peaceful and quiet than those of most other people.

429. Even the idea of giving a talk in public makes me afraid.

430. The things some of my family have done have frightened me.

431. As a youngster in school I used to give the teachers lots of trouble.

432. I am not afraid of picking up a disease or germs from doorknobs.

433. It is more important that a father be kind than that he be successful.

434. My skin seems to be unusually sensitive to touch.

435. If the pay was right I would like to travel with a circus or carnival.

436. I never cared much for school.

437. I am troubled by attacks of nausea and vomiting.

438. I would have been more successful if people had given me a fair chance.

439. The members of my family were always very close to each other.

California Psychological Inventory

440. There are times when I have been discouraged.

441. I have often been frightened in the middle of the night.

442. The trouble with many people is that they don't take things seriously enough.

443. I'm not the type to be a political leader.

444. My parents never really understood me.

445. I would fight if someone tried to take my rights away.

446. I must admit that people sometimes disappoint me.

447. If I saw some children hurting another child, I am sure I would try to make them stop.

448. People seem naturally to turn to me when decisions have to be made.

449. Almost every day something happens to frighten me.

450. I get sort of annoyed with writers who go out of their way to use strange and unusual words.

451. I set a high standard for myself and I feel others should do the same.

452. I dislike to have to talk in front of a group of people.

453. I work under a great deal of tension.

454. My family has objected to the kind of work I do, or plan to do.

455. There seems to be a lump in my throat much of the time.

456. I have more trouble concentrating than others seem to have.

457. A person is better off if he doesn't trust anyone.

458. People who seem unsure and uncertain about things make me feel uncomfortable.

459. My sleep is fitful and disturbed.

460. A strong person doesn't show his emotions and feelings.

461. It seems that people used to have more fun than they do now.

462. Even though I am sure I am in the right, I usually give in because it is foolish to cause trouble.

463. It is hard for me just to sit still and relax.

464. From time to time I like to get completely away from work and anything that reminds me of it.

465. I must admit that I am a high-strung person.

466. I am a very ticklish person.

467. At times I think I am no good at all.

468. I like to eat my meals quickly and not spend a lot of time at the table visiting and talking.

469. I must admit that it makes me angry when other people interfere with my daily activity.

470. If a person doesn't get a few lucky breaks in life it just means that he hasn't been keeping his eyes open.

471. I sometimes feel that I do not deserve as good a life as I have.

472. I feel that I would be a much better person if I could gain more understanding of myself.

473. I can't really enjoy a rest or vacation unless I have earned it by some hard work.

474. I sometimes tease animals.

475. I have a good appetite.

476. I had my own way as a child.

477. I get tired more easily than other people seem to.

478. I would be uncomfortable in anything other than fairly conventional dress.

479. I sweat very easily even on cool days.

480. I must admit it would bother me to put a worm on a fish hook.

California Psychological Inventory

START HERE

DIRECTIONS: Be sure to fill in your name and other information requested. Then answer TRUE (T) or FALSE (F) for each statement by putting an X in the appropriate box, as in the example at right.

EXAMPLE ONLY

T
F
1 — 2 — 3

NAME (Please print)

AGE

SEX

DATE

Reproduced from Manual for the California Psychological Inventory.

CONSULTING PSYCHOLOGISTS PRESS, INC.
Palo Alto, California

DO NOT MARK BELOW THIS LINE

Do   Cs   Sy   Sp   Sa   Wb   Re   So   Sc   To   Gi   Cm   Ac   Ai   Ie   Py   Fx   Fe

APPENDIX I

154

ADULT/ADOLESCENT PARENTING INVENTORY*
(A/API)

Read each of the statements below and rate them as follows:

SA	A	U	D	SD
strongly agree	agree	uncertain	disagree	strongly disagree

Circle the letter on the answer sheet which best describes your opinion. There are no right or wrong answers, so answer according to your own opinion. It is very important to the study that you respond to each statement. Some of the statements may seem alike, but all are necessary to show slight differences of opinion.

		strongly agree	agree	uncertain	disagree	strongly disagree
1.	Young children should be expected to comfort their mother when she is feeling blue.	SA	A	U	D	SD
2.	Parents should teach their children right from wrong by sometimes using physical punishment.	SA	A	U	D	SD
3.	Children should be the main source of comfort and care for their parents.	SA	A	U	D	SD
4.	Young children should be expected to hug their mother when she is sad.	SA	A	U	D	SD
5.	Parents will spoil their children by picking them up and comforting them when they cry.	SA	A	U	D	SD
6.	Children should be expected to verbally express themselves before the age of one year.	SA	A	U	D	SD
7.	A good child will comfort both of his/her parents after the parents have argued.	SA	A	U	D	SD
8.	Children learn good behavior through the use of physical punishment.	SA	A	U	D	SD
9.	Children develop good, strong characters through very strict discipline.	SA	A	U	D	SD
10.	Parents should expect their children who are under three years to begin taking care of themselves.	SA	A	U	D	SD
11.	Young children should be aware of ways to comfort their parents after a hard day's work.	SA	A	U	D	SD
12.	Parents should slap their child when s/he has done something wrong.	SA	A	U	D	SD
13.	Children should always be spanked when they misbehave.	SA	A	U	D	SD
14.	Young children should be responsible for much of the happiness of their parents.	SA	A	U	D	SD

*Copyright © 1979 by Stephen J. Bavolek, Ph.D., Donald F. Kline, Ph.D., and John A. McLaughlin, Ed.D. Utah State University, Logan, Utah.

		strongly agree	agree	uncertain	disagree	strongly disagree
15.	Parents have a responsibility to spank their child when s/he has misbehaved.	SA	A	U	D	SD
16.	Parents should expect children to feed themselves by twelve months.	SA	A	U	D	SD
17.	Parents should expect their children to grow physically at about the same rate.	SA	A	U	D	SD
18.	Young children who feel secure often grow up expecting too much.	SA	A	U	D	SD
19.	Children should always "pay the price" for misbehaving.	SA	A	U	D	SD
20.	Children should be expected at an early age to feed, bathe, and clothe themselves.	SA	A	U	D	SD
21.	Parents who are sensitive to their infant's feelings and moods often spoil their children.	SA	A	U	D	SD
22.	Children deserve more discipline than they get.	SA	A	U	D	SD
23.	Children whose needs are left unattended will often grow up to be more independent.	SA	A	U	D	SD
24.	Parents who encourage communication with their children only end up listening to complaints.	SA	A	U	D	SD
25.	Children are more likely to learn appropriate behavior when they are spanked for misbehaving.	SA	A	U	D	SD
26.	Children will quit crying faster if they are ignored.	SA	A	U	D	SD
27.	Children five months of age ought to be capable of sensing what their parents expect.	SA	A	U	D	SG
28.	Children who are given too much love by their parents will grow up to be stubborn and spoiled.	SA	A	U	D	SD
29.	Children should be forced to respect parental authority.	SA	A	U	D	SD
30.	Young children should try to make their parent's life more pleasurable.	SA	A	U	D	SD
31.	Young children who are hugged and kissed often will grow up to be "sissies."	SA	A	U	D	SD
32.	Young children should be expected to comfort their father when he is upset.	SA	A	U	D	SD

APPROVAL SHEET

The dissertation submitted by John J. Larsen has been read
and approved by the following committee:

Dr. Anne M. Juhasz, Director
Professor, Foundations of Education
Loyola University

Dr. Jack A. Kavanagh
Associate Professor and Chairman,
Foundations of Education, Loyola University

Dr. Joy J. Rogers,
Associate Professor,
Foundations of Education, Loyola University

The final copies have been examined by the director of the
dissertation and the signature which appears below verifies
the fact that any necessary changes have been incorporated
and that the dissertation is now given final approval by the
Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment
of the requirements for the degree of Doctor of Education.

April 8, 1981
Date

Anne McCreary Juhasz
Director's Signature