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**Work and family: Effects of instruction on adolescents'
knowledge and perspectives**

Adegoke, Mopelola Odunola, Ph.D.

Iowa State University, 1990

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**300 N. Zeeb Rd.
Ann Arbor, MI 48106**

**Work and family: Effects of instruction
on adolescents' knowledge and perspectives**

by

Mopelola Odunola Adegoke

**A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY**

Department: Family and Consumer Sciences Education

Major: Home Economics Education

Approved:

Signature was redacted for privacy.

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For the Graduate College

**Iowa State University
Ames, Iowa**

1990

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DEDICATION

This dissertation is dedicated to the loving memories of two important people in my life: my beloved mother, Mrs. Bolajosi Ajiyegbe Babalola, who inculcated in me the advantages of hard work, and my dearest brother, Mr. James Oladele Babalola, who instilled in me the importance of formal education.

INTRODUCTION

Prior to the industrial revolution in the United States and England, the family was the primary economic unit (Burge, 1989; Coleman, 1987; Pleck, 1976). The later half of the nineteenth century witnessed migration of families to urban areas and offered employment to men in the offices or factories, consequently, economic activities were moved outside the household into the industrial centers (Coleman, 1987; Pleck, 1976). By the early twentieth century in the United States only one-tenth of married white women remained in the labor force, while employment for nonwhite and single women was higher than for married whites (Beckett, 1976; Chafe, 1976; Degler, 1980; Scott & Till, 1975). The paternal unemployment of the depression era of the 1930s and World War II sent mothers into the labor force, so that by the middle of the twentieth century, the number of women in the labor force had grown considerably (Brofenbrenner & Crouter, 1982; Piotrkowski, Rapoport, & Rapoport, 1987).

Today, over 46% of the labor force is women (Bolten & Pins, 1989; U.S. Bureau of the Census, 1980). In fact, the current predictions indicate that almost two-thirds of the near-future work force entrants will be minority, women, or immigrants (Burge, 1989). Currently, a majority of families are supported by two wage earners. For example, over one-half of marriages with dependent children are now "dual earner" families (Moss, 1980; Schultz & Chung, 1988; Waldman, Grossman, Hayghe, & Johnson, 1979). Furthermore, single-parent

families usually headed by women are increasing in proportion to other family types and now make up about 25 percent of families with children (Norton & Glick, 1979, 1986). An increased number of children are likely to be raised in single parent families, dual career families, or two earner families.

These economic and demographic trends are expected to continue to influence work and family life into the future. Because most men will continue to work outside the home, it seems that both genders (men and women) may need to be involved in work and home responsibilities. Burge (1989) posited a model representing work and home, showing intersecting circles with most adults and teens having duties and benefits in both spheres.

Combining work and family roles is a key issue for individuals, families, and American society currently and for the foreseeable future (Chow & Berheide, 1988). To deal successfully with the various changes and stress of combining work and family life, the youth of today need to learn problem solving and coping skills. They need to be able to analyze factors that affect work and family interaction: age, career commitment, and marital status; to adjust personal expectations for multiple roles; to establish task priorities; to share household and child care responsibilities; to develop financial, stress, and time management skills; and to develop conflict resolution skills (Burge, 1989; Crowley, 1988).

Different strategies and resources have been suggested by educators, researchers, government agencies, and curriculum developers

to prepare adolescents for combining work and family roles in the future. For example, Schultz and Henderson (1985) advocated that vocational home economics professionals should incorporate career planning concepts into their program. Engelbrecht and Nies (1988) suggested that home economics courses should focus content on helping individuals prepare for both work and family roles by teaching the relationship skills necessary to function in both the family and employment worlds. The Carl D. Perkins Vocational Education Act of 1984 and The Unfinished Agenda (Taylor, 1985) called for the incorporation of work life and family life concepts into home economics curricula. Crowley (1988) surveyed secondary vocational educators in Iowa and recommended that vocational curricular materials should address such concepts as adaptations in traditional family roles, management strategies used by families to reduce work/family conflicts, and consumer-related employment decisions to help individuals plan for productive and satisfying work and family lives.

In responding to various recommendations about adolescents' future work and family life needs, Schultz, Crowley, and Culver (1988) developed a curriculum called Balancing Work and Family Life (BWFL). The curriculum is grouped into four units: Work and Family Life Choices; Balancing Work and Family Life; Work Influences on Family Life; and Family Influences on Work Life.

Many of the research studies on adolescents' perceptions about their future work and family lives have been descriptive in nature. Little or no experimental or quasi-experimental research exists that

measures the cognitive effects of an educational intervention on adolescents' knowledge and perceptions about future work and family life. This study was designed to meet that need. This quantitative study uses the summative evaluation model of Bloom, Hastings, and Madaus (1971) to assess the effectiveness of the curriculum Balancing Work and Family Life. The goal of summative evaluation is to assess program effect and to determine the cause and generalizability of such evaluation (Bloom, Hastings, & Madaus, 1971; Borg & Gall, 1989; Herman, Morris, & Fitz-Gibbon, 1987; Worthen & Sanders, 1987). Summative evaluation procedures may involve comparing program participants' performance with a group receiving no program (Herman et al., 1987). The concern here is the outcome.

Therefore, the purpose of this study was to determine the effectiveness of an instructional program using the curriculum Balancing Work and Family Life on adolescents' knowledge and perceptions about future work and family lives.

Objectives

1. To assess adolescents' knowledge of work and family life concepts.
2. To assess adolescents' perceptions of their future work and family life.
3. To determine the effect of the curriculum, Balancing Work and Family Life, on knowledge and perceptions of adolescents in the treatment group when compared with those in the control group.

4. To determine the relationship of demographic and self-concept variables on adolescents' knowledge and perceptions of work and family roles in the future.

Hypotheses

1. H_{A1}: There will be a significant difference in the knowledge of work/family concepts between adolescents who receive BWFL instruction and those who do not.
2. H_{A2}: There will be a significant difference in adolescents' perceptions of future work and family life between adolescents who receive BWFL instruction and those who do not.
3. H_{A3}: There will be a significant relationship between selected demographic and self-concept characteristics of adolescents and their knowledge regarding work/family roles in the future.
4. H_{A4}: There will be a significant relationship between selected demographic and self-concept characteristics of adolescents and their perceptions regarding work/family roles in the future.

Definitions

1. Future time perspectives: The total of an individual's views of his or her psychological future and psychological past, existing at a given time (Blinn & Pike, 1986).

2. Knowledge: Ability of students to perform cognitive behavior stated in specific objectives.
3. Balancing work and family: Ability to combine work and family roles simultaneously in an equitable manner.
4. Realism: The link between one's present behavior and perceived attainment of goals (Nuttin, 1985).
5. Reciprocity: Mutual interdependence of work and family (Chow & Berheide, 1988).

Assumption

1. Students will interpret instrument items consistently and respond honestly.

Limitations

This study is limited to adolescents in secondary vocational home economics programs in the state of Iowa.

REVIEW OF LITERATURE

The main purpose of this study is to determine the effectiveness of an instructional intervention using the curriculum Balancing Work and Family Life (BWFL) on adolescents' knowledge and perspectives. Literature review for the study is included in four main sections. The first section focuses on general historical, current, and research trends on relationships between work and family lives and on adolescents' working status. The second section deals with adolescents' perceptions of work and family roles in the future. The third section addresses developmental theories as they relate to adolescents' behavior and present justification for a curriculum on work/family for adolescents. Section three will also discuss curricula which have been developed in this area that include major concepts in work/family roles. The fourth section will focus on adolescents' demographic and self-concepts characteristics that may influence their knowledge and perceptions of work and family roles in the future. The program evaluation model for the study will be discussed as well.

Trends in Work and Family

Historical work/family trends

Prior to industrialization in the United States and England, the family household was the primary economic unit (Burge, 1989; Coleman, 1987; Pleck, 1976). Among the peasants, the working class

and the artisans for example, food and clothing production and other money making activities were often carried out within the family unit (Coleman, 1987; Pleck, 1976). The industrial revolution of the nineteenth century, however, brought about changes in relations between work life and family life. For instance, the development of industries led to migration of families to the urban areas and offered employment outside the family units (Brown, 1985; Coleman, 1987; Piotrkowski, Rapoport, & Rapoport, 1987).

As industrialization progressed, spatial separation between the productive centers and family residence grew, making accessibility to employment in the industrial centers easier for men than for women (Brown, 1985; Burge, 1989). At this point in time, "a man's work," whether as a farmer, businessman, or industrial worker, became a way of life (Brown, 1985, p. 202). Other social changes came with industrialization that compelled women to stay out of the labor force. For example, the protective legislation which restricted employment hours for women and children restricted women's employment opportunities, hence forcing married women to stay home and care for their husbands and their children (Piotrkowski et al., 1987).

By the early twentieth century in the U.S., only one-tenth of married white women were employed in the labor force, and employment for nonwhite and single women was higher than white married women (Beckett, 1976; Chafe, 1976; Degler, 1980; Scott & Till, 1975). From these evidences, it is clear that industrialization shaped the traditional nuclear family in the United States where the husband is a

breadwinner and the housewife is responsible for the domestic activities in the home.

The great depression and the advent of World War II altered the nature of work and family relations in the United States. The paternal unemployment of the depression era of the 1930s and World War II sent mothers into the labor force (Brofenbrenner & Crouter, 1982). Between 1900 and 1940, women were employed in clerical and other office related employment. By 1950, however, the number of mothers in the labor force grew considerably (Brofenbrenner & Crouter, 1982; Piotrkowski et al., 1987). The last four decades brought a different dimension in work and family relationships. For example, between 1950 and 1980, more than half (53%) of all married women with children under 18 years of age had entered the labor force (Kamerman & Hayes, 1982).

Current work/family trends

American families in recent years have witnessed dramatic changes in forms, structures, and functions. The last 20 years in particular have shown significant increases in the number of two career parents where both husband and wife work outside the home. In the United States today, over one-half of marriages with dependent children are now "dual earner" families (Moss, 1980; Schultz & Chung, 1988; Waldman, Grossman, Hayghe, & Johnson, 1979).

The rapid monetary inflation of the 1970s made women's wages necessary for many families to maintain the family standard of living

(Piotrkowski et al., 1987). Consequently, the labor force participation of married women has increased steadily between 1970 and 1985. The participation rate for married women with children ages 14 to 17 rose from 55% to 65% during this period (BNA Report, 1986; Hayghe, 1986; U.S. Bureau of the Census, 1980).

Another important trend related to the study of work and family interaction is the large increase in divorce rates. Norton and Glick (1979, 1986) predicted that 4 out of every 10 marriages of women born between 1945 and 1949 in the United States will end in divorce. Many factors have been found responsible for this trend, including the liberalization of divorce laws, earlier marriage, the growth of secularism, the growing ideology of personal self-fulfillment, the strains of poverty, and large college enrollments for women leading to opportunity for economic independence for women (Cherlin, 1981; Hetherington, 1979; Piotrkowski et al., 1987; U.S. Bureau of the Census, 1980). One impact of this high increase in divorce rates is the rise in the number of single-parent families, usually headed by women (Norton & Glick, 1979, 1986; Piotrkowski et al., 1987). In the past, the death of a husband accounted for most single-parent families, but in recent years divorce or separation, individual decision to remain unmarried, and the younger age of parents have provided the main stimuli (Piotrkowski et al., 1987).

Today, and for the foreseeable future, a majority of children are likely to be raised by single parent families or dual-career, two earner families. From all indications, changes occurring in parental

work patterns will not disappear soon. Rather, the trend is expected to continue into the future (Corder & Stephan, 1984). Therefore, these new circumstances are now forcing both genders (male and female) to find new and equitable ways to share the total workload.

Adolescents' work status

Historically, adolescents in the United States have contributed to the economic development of their families as well as to the economic development of this nation. For instance, Greenberger and Steinberg (1986) indicated that adolescents have helped with household chores, participated in family business, tilled farmland during planting seasons, harvested crops with their parents on family farms, and sometimes held odd jobs outside the family economy.

For the most part, working and going to school were mutually exclusive endeavors for the youth in this country. The last several decades, however, have witnessed combining employed work and school work as a joint venture for teenagers. Greenberger and Steinberg (1986) traced the labor force participation of American teenagers from the 1940s to the present. For example, in 1947, about 27 percent of adolescent boys, ages 16 and 17, were in the labor force, and by 1980, 44 percent of the same age group boys had entered the labor force. During the same period, the labor force participation of adolescent girls of the same age group rose from 17 percent to 41 percent.

Today a significant proportion of adolescents of all races and both sexes hold part-time jobs while going to school full time in America. Lewin-Epstein (1981) found among high school sophomores that

59 percent of "white and other," 56.6 percent of Hispanics, and 53.8 percent of blacks had worked or looked for work a week prior to the "High School and Beyond" survey. Similarly, among high school seniors, the labor force participation for the same racial groups was 76.7 percent for whites, 75.1 percent for Hispanics, and 70.3 percent for blacks. According to Lewin-Epstein (1981), on average, sophomore boys and girls in the United States spend 14.8 hours and 10.5 hours working each week, respectively. Comparable figures for senior boys and girls are 21.1 hours and 17.8 hours per week.

In Iowa and a neighboring state, Workman (1989) explored the local and national teen culture. Workman studied 413 Iowa City West High School juniors and seniors; her study revealed that 67 percent of these adolescents work during the school year, with 21 percent of them holding two jobs. Thirty-four percent of the juniors and 51 percent of the seniors work over 15 hours during the school week. Forty-nine percent of the juniors and 53 percent of the seniors work more than 30 hours a week. Overall, 43 percent of the students in the 9th through 12th grades work more than 16 total hours a week. Similarly, in the Minnesota Anoka Hennepin School district, 68.5 percent of the 3,500 juniors and seniors in three high schools work at part-time jobs.

The popular thinking about factors influencing youths' work force participation has been attributed to some of the factors that also encouraged women into the labor force, e.g., expanded job opportunities, inflation, and increased materialism and consumerism.

Until recently, research in the area of work and family has treated the issues of work and family as separate spheres, each having no relationship to the other, and each leading to rather different outcomes (Brofenbrenner & Crouter, 1982; Chow & Berheide, 1988). The current research trends, however, have focused on the mutual interdependence of these two spheres. Emphasis now is on the reciprocal influences of work and family as more families than ever are now dual-career or dual-earner families. Consequently, both men and women need to be involved in learning how to combine work and family responsibilities equitably (Burge, 1989; Brofenbrenner & Crouter, 1982; Chow & Berheide, 1988).

Stryker (1989) indicated that to plan careers concordant with family life, young people must choose wisely at 10 crucial junctures. These include:

- viewing work and family life as interconnected parts, not discrete spheres.
- choosing a satisfying career.
- choosing a career with day-to-day flexibility.
- choosing the right partner and the right time to marry.
- choosing whether and when to have children and deciding on child care.
- choosing a job with potential.
- choosing to set priorities at home and work.

- choosing to obtain the education and training necessary to establish a career.
- choosing to take control of their own lives.

Adolescents' Future Work and Family Life Perspectives

Very few studies have asked adolescents to project into the future to see themselves in work, marriage, and family roles. Recently, however, the American Home Economics Association's (AHEA) survey of "American Teens" (Schultz, 1988) identified areas of concern expressed by today's adolescents. These include concerns about money, health issues, drugs, higher education, and future plans. The results show that a high percentage (80%) are basically happy with their lives right now and trust their parents. In terms of trusting their parents, Schultz (1988) also reported that 47% of the American teenagers turn to their parents when making important decisions. However, many indicated concerns about knowing which career to choose, and perceived that combining a career and a family would be difficult. Similar concerns about career choice and unclear family life beyond a certain future time also were found among adolescents from an Appalachian culture by Blinn and Schwartz (1988). They stated that "Lack of ability to imagine the future beyond 26 years of age had resulted in these adolescents relying on popular and over-used images to describe their later lives" (p. 22). Few longitudinal studies have retrospectively asked respondents for reflections on crucial turning points in life. These provide insights into what young people experience as they assume adult work and family roles. But, they do

not help measure the expectations of adolescents regarding their future work and family lives. Yet as these individuals moved from adolescence to adulthood, they experienced four major transitions, namely exit from school, entry into the work place, marriage, and parenthood (Poole, 1982). The argument is whether all adolescents prospectively see themselves in such roles, whether they anticipate themselves passing through this sequence, and whether they all expect to be working, to be married, and have families.

Boocock (1978) studied 1,000 participants in the project TALENT Survey 15 years earlier. Even though Boocock's study revealed considerable variations in the social timetable of these 1,000 young adults in terms of age at major life transitions and their sequence, the content of the events remained the same during these transitions. The study revealed earlier social transition for females and people with lower social economic status, and those with lower academic background (Boocock, 1978).

Adolescents' Future Likelihood Inventory

Blinn (in review) explored how 129 pregnant adolescents' perceptions of their work futures changed as they moved through their pregnancy. The instrument "Future Likelihood Inventory" was utilized twice to measure the perceived likelihood of particular events occurring in their work lives at the fourth month and at the seventh month of pregnancy. The results indicated that the dimensionality of their perceptions was fairly stable but that the perceived likelihood of the dimensions changed over time. Dimensions related to working

full time, having advanced education, and having highly technical jobs were perceived as less likely by the seventh month.

Blinn and Schwartz (1988) used a multi-method approach to collect information on adolescent future time perspectives. The Future Likelihood Inventory (FLI) was used in this study to measure adolescent future time perspectives of a sample of 30 15-year old female home economics students in rural Tennessee. At the same time as when the instrument was administered, students were asked to take pictures which represented their lives at age 25 to 40, 45 to 60, and 75 years and above. Blinn and Schwartz (1988) reported that the results of the three methods revealed both independent and congruent information about adolescents' perceptions of their family lives, work lives, health status, and environment in the future. Blinn and Schwartz (1988) reported that the students held unrealistic expectations for material possessions (i.e., expensive home), and unrealistic health and physical appearance expectations during their middle ages. Nevertheless, some elements of reality also were found, especially in dealing with the values system of their culture.

Blinn and Pike (1986) conducted a preliminary investigation on the perceptions of the future for selected undergraduate students, specifically to determine how they perceived their lifestyles in the year 2000. A preliminary survey instrument was developed to measure anticipated characteristics of students' personal lives, work lives, physical environment, and health in the year 2000. The final instrument was administered to 324 volunteer undergraduate students in

intact Home Economics classes in five regions (East, Upper Midwest, Midwest, Prairie, and Southwest). The future aspects deal with questions that are related to "The Second Wave" lifestyles that involve working full time in a large industrial organization with few career changes. "The Third Wave" lifestyles involve alternative choices. The findings indicate that overall students perceived themselves to be working full time and to have a fairly high level of satisfaction from their work. Males and females differed in terms of commitment to career, type of work, and perceived working conditions. Females, although they expressed high career and parenthood expectations, were unclear as to how they would combine work and family roles.

McClam and Blinn (1988) examined the current beliefs of 140 female undergraduates majoring in helping professions about their interpersonal lives in the future. The major questions addressed the extent to which the female undergraduates expect frequently occurring social trends to occur in their personal lives, and whether the expectations differ due to the undergraduate choice of academic majors--child and family studies, nursing, and human services. The Interpersonal Future Likelihood Inventory by Blinn and Pike (1986) was used as the independent measure. The results indicated that the women were confident that they would be married once and be parents. The results also indicated that women believed they will not be described by any of the following: married more than once, be divorced, remain unmarried, be stepparents, be single parents, have roommates of a

different sex or be adoptive or foster parents. The researchers concluded from an analysis of variance that nursing students appeared to be more traditional in their beliefs about marriage and parenthood than child and family studies students.

Adolescents' future aspirations

Corder and Stephan (1984) examined the aspirations of adolescent women for combining marriage, motherhood, and labor force participation. The aspirations of adolescent males for their future wives' combination of marriage, motherhood, and labor-force participation also were examined to uncover any sex differences. A tri-ethnic (black, white, Mexican-American) sample of 948 8th through 12th grade students participated in the study. The results indicated that sex role variables were important in both male and female lifestyle choices, and that background, significant others, and achievement variables also were important when determining the level of aspiration for future lifestyles, meaning that females who aspired to work and males who aspired for their wives to work tended to view both husbands whose wives were employed in the labor force and wives in the labor force as having higher prestige than those married couples in which wives did not work outside the home, and vice versa. Also, females made plans that would allow them to focus on the aspect of life most important to them. Females more interested in family than work did not aspire to combine work with family roles; females more interested in work than family did aspire to combine work with family roles.

Leslie (1986) investigated adolescent females' assessments of the rewards and costs of employment and parenthood, and the impact of the assessments on their plans for their adult lives. A total of 549 11th and 12th grade females completed a questionnaire addressing their future work and parenting plans, characteristics of their family life at present, and their assessments of rewards and costs of the roles as workers and as parents. Results showed that daughters of homemakers and daughters of working mothers differed in their assessment of each role, and considered different factors in making their decision.

In assessing work, daughters whose mothers were full-time homemakers had an intimate model of only the homemaker role; they were more likely to go through a more elaborate process of deduction to assess rewards of employment and incorporate the opinions of their fathers in the decision making as the only family member with work expertise, while daughters of employed mothers were more likely to depend on their mothers' experiences for guidance. Most of the adolescents (90%) planned to go to college, 96% planned to work, and 93% planned to have children by age 35. Of those who planned to work, 35% planned to work regardless of the circumstances in which they found themselves, and 44% planned to stop work either when they were married or when they had children. Only 7% would stop work temporarily while children were young, and 13% were unsure of how they would organize work and family responsibilities.

Poole (1982) conducted a longitudinal study to explore adolescents' perceptions of themselves in relation to their future

work, marriage, and family roles. The sample consisted of 796 male and female adolescents ages 14-18, drawn from 32 schools in metropolitan Melbourne, Australia. Data were collected in 1972 and 1975 using an open-ended instrument where subjects responded freely to the topic "Myself in Ten Years." The results indicated that most adolescents believed they would be working or completing training for their work in 10 years time. Most held high (professional) aspirations for their future. Technical school students were more realistic about their work aspirations; they did not aspire to upper professional jobs. A majority of the students would be either married or planning marriage in 10 years time. Many intended to have children. Girls were more likely than boys to state expectations of their future marriage partners, but both boys and girls were looking for similar qualities in their future spouses. Girls frequently indicated that they would stop working when they married or started having children, and would return to their jobs when their children got to school age and were at school. Most of the adolescents saw their future in personal terms rather than in societal terms and showed little concern for social and environmental issues. Work, marriage, and family roles were what adolescents anticipated, although their lives might be enhanced by travel, leisure, and community services.

Adolescents' future time perspectives

Cottle et al. (1969) studied adolescent perceptions of time; investigating the effect of age, sex, and social class variables among

178 boys and girls ages 12 to 18 from two schools in Australia. The purpose was to empirically describe characteristic perceptions of the population subgroups for the young boys and girls and the young middle-class boys and girls. The instrument focused on four temporal perspectives: the location of important experiences; fantasies of recoverability and preknowledge; the significance of time zones as judged by perceived extensions; and the sense of time zone relatedness. The results indicated that the transition from early to late adolescence includes a shifting from an orientation of recall to one of expectations coupled with a recognition of the relatedness of the past, present, and future; and that middle-class adolescents were concerned with the distant future, whereas upper-class adolescents were more interested in near future as well as in history.

Verstraeten (1980) studied the level of realism in adolescent future time perspective to determine whether unrealistic desires would be located more frequently in the remote future than in the near future and whether the extension or depth of future time perspectives and its overall level of realism would increase with maturity. A total of 113 male and female adolescents ages 15 to 17 years participated in the study in Belgium. A "Realism Inventory" was used. Results indicated that girls were less realistic than boys as the distance of goals increased. Both sexes showed less partial realization of goals situated in the remote future. The older subjects, however, showed more extended future time perspectives than the younger ones. The older subjects also showed more partial

realizations of their goals; they tended to show more planning but also more daydreaming. The time localization of goal was more precise for goals situated immediately after secondary school for the older subjects; and they were more realistic about their goals.

Developmental Theory

The main goal of developmental theorists, according to Berger (1980), is to understand the process of human growth and change, such that the events and circumstances that shape individuals' life experiences can be determined, and to some extent, what the future holds for individuals can be predicted. This endeavor has been guided by questions such as what are the physical, mental, social, and emotional characteristics of children at different age levels (Berger, 1980; Thomas, 1985)? This represents a holistic approach to understanding human development because each aspect of development is interrelated.

Developmental psychologists have studied development from three main developmental domains: physical, cognitive, and psychological (Berger, 1980). Physical development includes all the growth and changes that occur in the body: height, weight, bone thickness, muscles, glands, brain and sense organs, motor skills, as well as nutritional and physical health. Cognitive development includes all the mental processes that are used to obtain knowledge or to become aware of the environment such as perception, imagination, judgment, memory learning, thinking, and language. Psychological development

focuses on personality and social development and includes such topics as emotional and moral development and the impact of the family and the larger society on the individual (Berger, 1980, pp. 6-7). Berger (1980) restated that all three domains are very important for understanding why, how, and when a child develops at every age (p. 7).

According to Havighurst (1953), the developmental tasks of life are pursuits that constitute a healthy and satisfactory growth in society. They include those things a person must learn if he/she is to be judged and judge himself/herself to be a reasonably happy and successful person. Havighurst (1953) stated, "A developmental task is a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his/her happiness and to success with later tasks, while failure leads to unhappiness and becomes more difficult to achieve later tasks" (p. 2). For example, choosing and preparing for an occupation and achieving certain values and a philosophy of life are examples of personal motives and individual values (Havighurst, 1953, p. 4). Havighurst (1953) concludes that developmental tasks may arise from physical maturation; from the pressure of cultural processes upon the individual; and from personal desires, aspirations, and values of the emerging personality. In most cases, these factors arise in combinations and act together.

There are two major reasons why the concept of developmental tasks is useful to educators. First, it helps in discovering and stating the purpose of education in schools. Education may be

conceived as the effort of the society, through the school, to help the individual achieve certain developmental tasks. Secondly, the concept can be used for timing educational efforts. "When the body is ripe, and society requires, and the self is ready to achieve a certain task, this is when the teachable moment has come" (Havighurst, 1953, p. 5).

Developmental contextual framework

Even though developmental psychologists have yet to incorporate work and family life concepts as part of the mainstream of developmental psychology, it has been well accepted in the Western culture today that vocational, career, and family life development are as much a part of human development as moral and cognitive development (Burge, 1989).

Vondracek and Schulenberg (1986) recently proposed a developmental-contextual approach to career development. This developmental-contextual approach is a useful framework for understanding adolescents' work and family life context.

The most unique feature of developmental-contextualism is the concept of dynamic interactions in development (Lerner, 1979). Instead of simply assuming that in some (usually unspecified) fashion the context influences the individual's development, proponents of developmental contextualism take the position that contexts, at various levels of analysis, establish multidirectional, complex relations with the individual and his/her development (Vondracek &

Schulenberg, 1986, p. 251). A developmental-contextual conceptualization can be used to incorporate features that are useful for structuring interventions into adolescents' work and family life development. It requires a comprehensive knowledge base that fosters an integrated view of the whole person, operating in complex sociocultural and physical contexts; it views both the person and the context as changing dynamically and over time. When these changes occur across the entire life span of the person they can be said to have a life span developmental focus (Vondracek & Schulenberg, 1986, p. 250). Therefore, interventions must be viewed as efforts to change something (systematically and deliberately) that is already changing without these efforts.

Vondracek and Schulenberg (1986) emphasized that in assessing the overall developmental status of the individual, the assessment must involve not only assessing the current status of the individual, but it must also involve the post developmental course as well as the individual's future aspirations and goals. The assessment should include a consideration of contexts within which the individuals' behavioral development history transpired, the contexts within which the individual is currently operating, and the contexts within which the individual hopes to achieve his/her future objectives.

From the perspective of the developmental contextual approach, the current study is developed to assist adolescents in dealing effectively with the complexities and challenges of everyday life and societal changes that will affect their future of work/family lives.

Hence, the adolescent's thinking skills, the emotional or psychological state, as well as their physical well being, need to be expanded and improved upon. The developmental contextual framework aims toward adequate and holistic growth making available suitable and direct experiences that could bring the potential to fruition.

Work and Family Curricular Materials

Vocational home economics educators are dedicated to preparing adolescents for productive, satisfying work and home lives. To fulfill this obligation, curricula have been developed that focus on work and family life concepts. This section will review some available curricula in work and family life developed by vocational home economics educators. Such curricula include: Home and Career; Integration of Combined Wage Earner/Homemaker Roles and Functions; What to do Regarding Coordinating Work and Family; Balancing Work and Family; and Balancing Work and Family Life.

Home and Career (1983) is a resource management curriculum developed by the Home Economics Curriculum Center at Texas Tech University. The curriculum focuses on management resources and strategies to help dual-earner and single parent families combine work/family roles. Learning skills such as meal planning, managing finances, completing household tasks, choosing child care, and successful use of leisure time are the major concept areas addressed.

Integration of Combined Wage Earner/Homemaker Roles in secondary home economics education programs (University of Northern Iowa, 1980) was developed at the University of Northern Iowa to encourage young

people to become aware of changes in American society. The main focus is on clarification of values and attitudes in order to accept the roles and responsibilities of work and family.

Adult Role and Functions is a nonlaboratory home economics course for 11th and 12th graders developed by the Home Economics Educators of West Virginia in 1981. It focuses on male and female role sharing and on the elimination of rigid sex role ideas and encourages career development based upon individual lifestyles.

The Ohio Department of Education in 1983 developed a curriculum entitled What to do Regarding Coordinating Work/Family, utilizing a practical problem approach to balancing work/family responsibilities. Concept areas include impacts of the family on work/family lifestyle options, cost factors of employment, support networks, money as a value and a goal, home/family skills applicable to work, family stress, and work overload.

Balancing Work and Family: An Educational Resource for the Business Community (1982) was developed by the Vocational Education Work and Family Institute Minnesota to help working families reduce conflict resulting from combining work and family responsibilities. Concepts addressed in the curriculum include: children interfering with parents at work, working late, egalitarian marital relationships, job burnout, tradeoffs, sexual identity, feelings of inadequacy, company sources of support, traditional vs. new breed parenthood, types of child custody, sources of stress, and the anger process.

Balancing Work and Family Life (Schultz et al., 1988) is a curriculum developed by the Department of Family and Consumer Sciences Education, Iowa State University, Ames, Iowa. The curriculum focuses on 50 concepts identified from various curricular materials and sources including those identified above. The concepts were grouped into four major units and the units include 37 lesson plans. The four units and their concepts are:

- **Work and Lifestyle Choices:** This unit includes lessons on demographic trends, multiple roles theory about the life span, parental influences on life style, and the development of long-term personal plans.
- **Balancing Work and Family Roles:** This unit includes concepts that relate to sources of conflict at work and home, personal resources used to meet dual-role responsibilities, and management of time and money.
- **Work Influences on Family Life:** This unit deals with understanding why people work, the demands and the expectations of career, work satisfaction, employee benefits, and public policy influences.
- **Family Influences on Work Life:** This unit deal with how family influences career choices, attitudes toward work, how to apply home skills at the work place, sharing household and child care responsibilities, and the reciprocal nature of work and family.

Influence of Demographic and Self-concept Variables

Literature reporting relationships between adolescents' knowledge/perception of work and family life and demographic

components such as gender, self aspiration, family's socio-economic status (SES), parental aspiration, and the influence of significant others (e.g., peers, teachers, and relatives) has been sparse. Most studies have focused on adolescent occupational choices, but little attention has been paid to decisions about combining work and family roles. Therefore, this section focuses on the few available studies that have utilized selected demographic variables in examining adolescents and their future work and family plans.

Gender, parental influence and influence of others

Corder and Stephan (1984) posited that a relationship exists between traditional sex-role socialization and lowered occupational goals in women, and that an exposure to nontraditional sex-role socialization should be a cause for higher career orientation in women. Hence, maternal employment, nontraditional sex-role attitudes, and the support of successful significant others should be associated with aspirations to combine work and family roles in women.

Considerable research has focused on the influence of maternal employment on a daughter's employment plan. Overall, there is a role-modeling effect: having a working mother predisposes daughters to be career oriented (e.g., Almquist & Angrist, 1970, 1971; Stewart & Winter, 1974). However, the effects of maternal employment on the daughter's career plans are mediated by the mother's educational level (Tangri, 1972); whether or not the daughter identifies with the mother (Ridgeway, 1978); and the mother's attitudes toward combining work and

family roles and her own success with respect to this combination (Baruch, 1972). Some studies show that nontraditional sex-role attitudes (e.g., Cummings, 1977) and the support of significant others (e.g., Bielby, 1978) positively influence females' occupational plans. Furthermore, there is an association of nontraditional sex-role attitudes and lessened commitment to conventional marriage (Trigg & Perlman, 1976). Other studies suggest that high SES, with particular reference to high educational level of parents (Hout & Morgan, 1975), high achievement scores (Sewel & Hauser, 1975), and high self-esteem (Bedeian, 1977) are associated with female adolescents' aspirations to pursue a high status occupation or career.

Vogel, Broverman, Clarkson, and Rosenkrants (1970) found that male and female college students whose mothers were employed were less likely to perceive significant differences in the roles of males and females than were those whose mothers did not work outside the home. Bayer (1975) found that males' backgrounds and achievements affect their sex-role attitudes. In a statement, "The activities of married women are best confined to home and family," college men who agreed were more likely to be nonwhite, to be from lower SES background, to have parents with less education and to have lower high school grades than college men who disagreed with the statement (Bayer, 1975).

Corder and Stephan (1984) found that females' aspirations for their combination of work, marriage, and motherhood, and males' aspirations for their future wives' combination of work, marriage and motherhood were influenced by their family background, the perceived

desires of their significant others, achievement, and their sex-role attitudes.

Poole (1982) found differences in patterns of expectations within marriages for boys and girls ages 14 to 18. For girls, almost 50% had a clear image of their prospective partners. Most expected their partners to contribute to sharing happiness and a loving relationship, however, only 11% specifically mentioned financial success, whereas boys expected a wife to be a companion, wife, lover, and a person with strong personality traits.

In the case of having a plan for marriage and parenthood, more boys than girls (a ratio of 2 to 1) indicated no marriage at all. Some expressed apprehension on finding the "right" partner and the unhappiness of divorce. Many may delay marriage until an age range of 24 to 28. One-third of the students would have 2 or 3 children. Both boys and girls indicated similar qualities in their spouses: understanding, acceptance, sincerity, kindness, responsibility, and common interest. Overall, jobs were more central to the lives of the boys and marriage to the girls in their future work and family roles (Poole, 1982).

Adolescents' self-concept (SDQ Series)

Shavelson, Hubner, and Stanton (1976) postulate that self-concept in general terms is one's perception of self, which is basically derived from interactions with significant others, self-attributions, and the overall experiential aspects of the social environment. The

self-concept structure was hypothesized by Shavelson et al. (1976) as being both multidimensional and hierarchical with perceptions of behavior at the base moving to the inferences about self in academic and nonacademic areas, and finally inferences about self in general. Shavelson et al. (1976) further postulated that self-concept becomes increasingly multifaceted with age and is differentiable from other psychological constructs such as academic achievement. "The particular facets reflect the category system adopted by a particular individual and/or shared by groups--the category system appears to include such areas as the school, social acceptance, physical attractiveness and ability" (Shavelson et al., 1976, p. 412).

Several studies support the multidimensionality of self-concept as evidenced by research on students in grades two through college (Marsh, Barnes, Cairns, & Tidman, 1984; Marsh & O'Neill, 1984; Marsh, Parker, & Barnes, 1985; Marsh & Shavelson, 1985; Marsh, Smith & Barnes, 1985). In these studies, it was concluded that self-concept factors derived from the Shavelson model were identified at each of the grade and college levels studied; that the self-concept factors, judging from the correlations among the factors, appeared to become more distinct with age; and that the correlations among the different factors suggested a hierarchical ordering among the self-concept dimensions. "However, whereas adolescent self-concepts are more differentiated than those of preadolescents they do not become so during the adolescent years," said Marsh, Smith, and Barnes (1985).

Of particular interest to the present study is the assumption by Shavelson et al. (1976) that self-concept is multidimensional. Factor analysis of responses to self-concept instruments provides a test of the multidimensionality of self-concept, but not until recently, weak support for the assumption has been demonstrated (Marsh & Smith, 1982; Shavelson et al., 1976; Wylie, 1979). Marsh and Smith (1982) suggest that the weak support for the assumptions may be due to poor construction of many instruments and to the lack of a theoretical basis for their design. Even when exceptional studies (e.g., Fleming & Watts, 1980; Marsh & Smith, 1982; Rosenberg, 1965; Sherif & Sherif, 1969) were found that contradict this suggestion, many such studies were found to be complicated by the fact that people generally have multiple reference groups and that most of the findings were inferred from post hoc analyses (Marsh, Relich, & Smith, 1983, p. 174).

SDQ series

Therefore, the Self-Description Questionnaire (SDQ) series was developed in an attempt to overcome some of the problems inherent in most other self-concept surveys (Marsh, Smith, & Barnes, 1985). The SDQ series is explicitly based upon Shavelson's model of self-concept. Thus, the hypothesized dimensions of self-concept have a sound theoretical rationale. Marsh (1986) claimed that three SDQ instruments were developed to measure multiple dimensions of self-concept: SDQ for preadolescents; the SDQII for early adolescents; and the SDQIII for late adolescents. The SDQIII was adapted for the

present study. According to Marsh (1986), results from many studies that utilized the SDQ instruments reported that: (a) the factors each instrument is designed to measure are clearly identified by factor analyses and assess distinguishable components of self-concept as shown by multitrait-multimethod analyses; (b) responses to each factor are internally consistent and stable over time; (c) each factor is significantly correlated with matching self-concepts inferred by teachers, peers, parents; and (d) academic achievement is substantially correlated with the academic self-concept in the same area (e.g. verbal ability and verbal self-concept), less correlated with other areas of academic self-concept, and nearly uncorrelated with nonacademic self-concepts (p. 131).

The lack of correlation between achievement indicators and nonacademic self-concepts has been consistent in all research with the SDQ series instruments and demonstrates the clear need to separate academic and nonacademic self-concept. For example, Marsh, Relich, and Smith (1983) showed that math achievement was substantially correlated with math self-concept (.55), less correlated with self-concepts in other academic areas (verbal, .21, and general-school, .43), and uncorrelated with self-concepts in four nonacademic areas. Also, Hansford and Hattie (1982) found that measures of ability/performance correlated about .2 with measures of general self-concept (which generally incorporate both academic and nonacademic components), but correlate about .4 with measures of academic self-concept. Byrne (1984) emphasized the need to distinguish academic

self-concept from general self-concept and from other, more specific facets of nonacademic self-concept.

Program Evaluation Model

This quantitative study uses the summative evaluation model of Bloom, Hastings, and Madaus (1971) to assess the effectiveness of the curriculum Balancing Work and Family Life. The goal of summative evaluation is to assess program effect and to determine the cause and generalizability (Bloom, Hastings, & Madaus, 1971; Borg & Gall, 1989; Herman, Morris, & Fitz-Gibbon, 1987; Worthen & Sanders, 1987). Summative evaluation procedure may involve comparing program participants' performance with a group receiving no program (Herman et al., 1987). The concern here is the outcome.

Summative evaluation model has been utilized extensively in educational programs for decision making purposes. Many of the studies involve experimental or quasi-experimental design because the primary question often is how well the program works, hence, the common concern in most studies is the issue of internal and external validity of the evaluation design (Borg & Gall, 1989; Herman et al., 1987).

In this study, developmental experiences will be provided by using the curriculum Balancing Work and Family Life with the adolescent age students. The other facets of this study, for example, the demographic information and the adolescents' self-concept will be used to assess their historical and family backgrounds as well as their psychological perceptions of self. The Future Likelihood

Inventory will provide pertinent information relating to adolescents' perceptions, aspirations, and goals regarding combining work and family in the future. This type of multidimensional assessment is being advocated by the developmental contextualists described in this review.

Summary

As an increased number of married men and women with children continue to work outside the home, their adolescent children (male and female) need to acquire the necessary skills required to function in the two spheres of work and family in the future. Vocational educators are particularly interested in preparing youth for combining work and family life in the future.

From a developmental perspective, adolescence is a period when vocational interest comes to the fore, when boys and girls become attracted to each other, and begin to consider marriage and plan for their future family lives. The developmental contextual framework emphasizes the developmental status (i.e., interaction of physical, mental and sociological context) in the past, present, and future. To effectively assess work and family life concepts among adolescents from this approach among adolescents requires special arrangements in terms of time, instructional materials, and equipment; instrumentation; and the development of skills through training associated with work and family life and perception of self currently and in the future.

Research shows that to successfully balance work and family roles, young people need to learn problem solving and coping skills. They need to become aware of support systems inside and outside the work place, to analyze the demands of roles in work and family spheres. They need to be able to analyze factors that affect work and family interaction such as interactions between age, career commitment, and marital status. They need adjustment to personal expectations for multiple roles: establishing task priorities and sharing household tasks and child care duties. They need to develop financial, stress, time management, and conflict resolution skills. Research also shows that adolescents' perceptions of work and family roles are not only influenced by the physical and biological maturation, they are also influenced by sociological and psychological elements of the environments.

METHODOLOGY

This quantitative study is designed to determine the effect of an instructional intervention using the curriculum Balancing Work and Family Life on adolescents' knowledge and perceptions regarding work and family life concepts. A nonequivalent control group design was used. Four different instruments were utilized for data collection. Three of the instruments, Work and Family Knowledge Test (WFKT), Future Likelihood Inventory (FLI), and Self Description Questionnaire III (SDQIII), were adapted from existing instruments. The fourth instrument that recorded background information was developed based on other research findings.

Instrumentation

Work/Family Knowledge Test (WFKT)

A pool of 48 items reflecting the concepts of the 37 lessons in the curriculum were initially selected from a test bank prepared for the curriculum Balancing Work and Family Life. The test items were selected according to the table of specifications developed for the curriculum, to ensure content-related evidence of validity for the instrument.

The WFKT covers the four units in the curriculum: (1) Work and Family Life Choices -- demographic trends, multiple roles throughout the lifespan, parental influences on lifestyle, and the development of long-term personal plans; (2) Balancing Work and Family Roles -- sources of conflict at work and home, personal resources to meet

dual-role responsibilities, management of time and money; (3) Work Influences on Family Life -- reasons people work, demands and expectations of a career, work satisfaction, employee benefits, and public policy influences; and (4) Family Influences on Work Life -- ways family influences career choices, attitudes toward work, home skills applied to the work place, shared household and childcare responsibilities, reciprocal nature of work and family, and satisfaction. The objective-type items used a four-choice multiple choice format. Two experts from the Department of Family and Consumer Sciences Education at Iowa State University initially reviewed the 48 items for accuracy, clarity, and usability.

The 48 items were further reviewed for accuracy after data collection by two experts, one from the Department of Child Development and one from the Department of Family Environment. After this review, 13 items were eliminated from the 48 items. The 13 items were dropped for various reasons including: vague and inappropriate stem for questions, inappropriate distractors, more than one possible correct answer for a question. The comments of the reviewers were strictly followed in eliminating the questions. The remaining subset of 35 items formed the WFKT utilized for final data analysis (see Appendix A1).

Future Likelihood Inventory (FLI)

The original FLI consisted of 58 items or events that may occur in the future. Students rated each event on a Likert-type scale from extremely unlikely (1) to extremely likely (5). The 58 events covered

four content areas: family life (19), work life (14), health status (15), and environments (10). The corresponding alpha reliabilities from previous studies were: family life (.71), work life (.70), health (.60), and environment (.58) (Blinn & Schwartz, 1988). The current study utilized the two scales of work life and family life from the FLI. The instrument consisted of 15 items on family life and 25 items on work life. Hence, a total number of 40 items from the original FLI were sent by Blinn for use in the current study (see Appendix A2). The FLI instrument was used to measure adolescents' perception of work and family life in the future.

Self-Description Questionnaire III (SDQIII)

This 40-item instrument was adapted from the original SDQIII of Marsh and O'Neill (1984) (see Appendix A3). The current instrument adapted from the original 13 scales consists of 8 scales of nonacademic self-concept (physical appearance; problem solving/creativity; relationship with same sex; relationship with opposite sex; relationship with parents; honesty/reliability; emotional stability/security; general self-concept). Marsh and O'Neill (1984) reported the following alpha reliabilities for the 8 scales in the original SDQIII: problem solving/creativity, .77; physical appearance, .95; relationship with same sex, .81; relationship with opposite sex, .93; relationship with parents, .87; honesty/reliability, .75; emotional stability/security, .88; and general self-concept, .93. The 40-item instrument was obtained using the 8 selected scales from the 136 items of the original study whereby the

10 (or 12) items for each scale were divided into 5 (or 6) item-pairs such that the first 2 items in the scale were assigned to the first pair, the next 2 items to the second, etc. The unused items belong to the five scales on academic self-concept (math, verbal) and were purposely dropped from the current study.

Each of the eight selected scales is represented by five items, approximately half of which are negatively worded. Students responded on a 5-point scale from "1-False," "2-Mostly False," "3-Sometimes False," "4-Mostly True," and "5-True." The items on each of the eight scales were arranged randomly to prevent response bias.

Background information

A 22-item questionnaire was developed to determine respondent's background characteristics. Characteristics of interest include gender, grade level, SES (e.g., parental education, parental occupation, and parental income). Parental influence, influence of significant others (e.g., peers, teachers, grandparents), respondents' current working status, self-aspiration, aspiration of others were also measured.

Sample

The sample included 166 male and female adolescents in grades 9 through 12 who were enrolled in secondary vocational home economics classes in six Iowa schools. Six home economics teachers from different parts of Iowa volunteered to field test the curriculum during the spring of 1989. The treatment group consisted of

adolescents who were enrolled in family living classes and received instruction using the curriculum. Teachers were asked to select a comparable group from other home economics classes in the school. The control group consisted of a comparable number of adolescents from the same schools who were enrolled in other home economics classes taught by the same teacher (e.g., food and nutrition, textiles and clothing, and/or child development) but did not receive instruction. Although 166 students participated in the pretest, 120 students participated in both pretest and posttest data collection. However, due to insufficient data from one treatment group, that teacher's classes (both treatment and control) were dropped, and a usable sample of 112 students provided matched data for this study.

The adolescents in this study were all white males and females from six small Iowa townships. A high number, 85 of the 112 adolescents, were currently working for pay. A majority of the adolescents (89) were in 11th and 12th grades, (35) and (54), respectively, while 23 were in the 9th grade. Over half (74) of the students came from middle income families (\$20,000 to \$49,999 per annum).

Data Collection

The curriculum Balancing Work and Family Life was sent to all secondary schools with vocational home economics programs in the state of Iowa through the State Department of Education Bureau of Career and Vocational Education. Approval of human subjects in research was obtained from Iowa State University prior to the start of the study

(Appendix B). A letter was sent to 12 vocational home economics teachers who had originally expressed interest in participating in the study to confirm their willingness to field test the curriculum in their classes. Six teachers responded positively and indicated their willingness to field test the curriculum Balancing Work and Family Life in their classroom during the Spring of 1989. The remaining six teachers responded but indicated that they teach family living class only in the Fall semester. A second letter was sent to thank the six teachers who agreed to field test the curriculum in their classes during Spring, 1989, and to explain the procedure for administering the instruments (see Appendix C for correspondence). Copies of the pretest instrument were provided and teachers were requested to administer the instrument to both the treatment and the control group prior to the beginning of the curriculum instruction. The curriculum contained 37 lessons and utilized a minimum of 7 weeks of instruction. A total of 166 students responded to the pretest. The same Work and Family Knowledge Test (WFKT) and the same Future Life Inventory (FLI) used for the pretest also were used for the posttest. The self-concept factors from SDQIII and background information were collected only once. The background information was administered during the pretest, while the SDQIII was administered during the posttest.

Pretest data: Pre-WFKT and pre-FLI

An instruction sheet was sent along with the instruments to make administration of the tests as uniform as possible. Each teacher was sent a packet containing the three instruments (WFKT, FLI, and

demographic questionnaire), instruction sheet, answer sheets, and a stamped self-addressed envelope in February 1989. Teachers were requested to administer the instruments to both the treatment group and the control group prior to the beginning of instruction on the curriculum. The responding sample for the pretest consisted of 85 family living students in the treatment group and 81 students in the control group who were not enrolled in a family living course. A total of 166 students responded to the pretest.

Posttest data

The same Balancing Work and Family Knowledge Test (WFKT) and the same Future Likelihood Inventory (FLI) used for pretest were also used for posttest. However, a different color of paper (blue) was used for posttest. Each teacher was sent a packet containing the posttest instruments, SDQIII, IBM answer sheets, and a stamped self-addressed envelope for returning the students' responses. The instruments were sent to each school a week prior to the completion of the class instruction on the curriculum. Another instruction sheet accompanied the package to remind the teachers to ask the students to use the same ID number used in the pretest and to request that the teachers administer the instruments to both the treatment and the control groups.

The responding sample usable for posttest data analysis consists of 63 students for the treatment group and 57 students for the control group. A total of 120 student participants responded to the posttest. One teacher was dropped from selected data analysis procedures because

posttest data were returned for only one student in the treatment group and seven students in the control group at that school. These eight students were dropped from final data analysis. Hence, only 112 students provided usable data. The researcher had several personal telephone conversations with the classroom Teacher 1 as a follow up to obtain the remaining responses of students in the treatment group who had not returned their instrument. The teacher indicated that she was not able to get the students to take the posttest. She did not give any other reasons for not sending the posttest responses back. It did take more than three telephone conversations before she finally returned any postdata responses.

Data Analysis

The Statistical Package for Social Sciences (SPSS-X) (Norusis, 1988) computer program was used to analyze the data. Reliability coefficients were computed for the 35-item WFKT and the factors resulting from the 40-item FLI. Descriptive statistics including frequencies, percentages, and means were calculated for all background information items. Differences in knowledge scores between groups of students were determined by analysis of variance procedures for WFKT and FLI factors. Analysis of covariance with WFKT pretest score as covariate was used to assess the effect of instruction using the curriculum between the treatment and the control group. Individual mean scores for the groups were used as unit of analysis.

The 40 items on the FLI posttest were factor analyzed using the principal components method with varimax rotation. Items were placed

into factors based upon size of factor loadings and rationality of fit. Factors were determined by examining items with loadings (positive and negative) above .30 on a factor. (See Appendix D for factors and abbreviations.) Analyses of covariance procedures with FLI pretest factors as covariates were used to measure group differences on the FLI posttest factor scores. Analysis of covariance procedures with pretest as covariate were used to adjust for the initial differences among the groups so as to increase the precision of the analyses. The individual mean scores were utilized so as to accurately interpret the treatment effect and the interaction effect for the group and for classroom teachers.

Final analysis sought to determine the relationship of adolescents' self-concept factors and demographic variables on knowledge and perceptions of work and family roles in the future. Multiple regression analysis using stepwise procedures were used for this investigation.

RESULTS AND DISCUSSION

Over a period of seven weeks in the spring of 1989, 166 male and female adolescents in six vocational home economics programs in the state of Iowa participated in this study. This section will present and discuss the findings related to demographic characteristics of the participants, knowledge of work and family prior to and as a result of instruction using the BWFL curriculum, and FLI factor scores. The results of pretest and posttest on Work and Family Knowledge Test (WFKT) for the treatment and the control groups using analysis of covariance (ANCOVA) procedure is presented. The results of the factor analysis on the Future Likelihood Inventory (FLI) and the ANCOVA for these individual factors are presented. The results of the regression analysis for all the demographic and self-concept variables also are presented and discussed in this section.

Adolescents' Demographic Characteristics

A total of 120 adolescents participated in the study, with 63 in the treatment group and 57 in the control group. After matching the subjects by pretest and posttest data and eliminating data from Teacher 1, 112 valid cases were successfully matched, with 62 in the treatment group and 50 in the control group. Because responses were voluntary, the data set contained some missing data. Table 1 presents the number of matched responses by group, teacher, and gender.

Table 1. Number of respondents by teacher, group and gender

Teacher	Male		Female		Missing	Total
	Treatment	Control	Treatment	Control		
1 ^a	0	3	1	4	-	8
2	0	0	19	14	-	33
3	5	0	4	4	-	13
4	1	0	8	2	-	11
5	1	1	7	4	9	22
6	0	4	12	14	3	33
Total	7	8	51	42	12	120

^aTeacher 1 was dropped from further data analysis.

Gender

The usable data for both pretest and posttest consisted of 120 adolescents. Out of the 120 adolescents who completed the two tests (pretest and posttest) 108 (15 males and 93 females) supplied their gender status. The remaining 12 respondents did not supply their gender status.

Current work status

A high number of the adolescents (85) in this study were currently working for pay. This result supports the general trend among adolescents in the United States today for combining part-time jobs with school work. For example, Workman (1989) reported that 67% of 413 Iowa

City West High School juniors and seniors work during the school year, with 21% even holding two jobs. Also, in the Minnesota Anoka Hennepin School District, 68.5% of 3,500 juniors and seniors in three high schools hold part time jobs (Workman, 1989). The result of the current work status of the adolescents in these six rural Iowa townships further strengthens the findings from other parts of the country.

Socio-economic status

Over half (74) of the adolescents came from middle income families (\$20,000 to \$50,000 per annum). Fifty-one adolescents indicated that their fathers and sixty-eight indicated that their mothers either currently work as technicians, hold clerical jobs, are in the military services, own personal businesses, or were homemakers. A total of 43 adolescents indicated that their fathers and mothers are currently working in managerial positions. Eighteen adolescents stated that their fathers and mothers are either farmers or farm managers. Only 27 adolescents indicated that their fathers and their mothers hold professional positions such as lawyers, physicians, college/school teachers, social workers, and clergymen. These findings on parental occupational status may be related to the level of education the parents obtained. For instance, almost half (49 and 52) of the adolescents indicated that their fathers and mothers, respectively, only completed high school education, 25 and 17 of the adolescents indicated that their mothers and fathers, respectively, have some college education. Only ten adolescents indicated that their fathers and mothers, respectively hold bachelor's degrees, while 8 and 10

Table 2. Adolescents' demographic information

Variable	Treatment	Control	Total
<u>Gender</u>			
Male	7	8	15
Female	51	42	93
Missing	<u>4</u>	<u>--</u>	<u>4</u>
Total	62	50	112
<u>Current Work Status</u>			
Working	50	35	85
Not Working	11	15	26
Missing	<u>1</u>	<u>--</u>	<u>1</u>
Total	62	50	112
<u>Socio-economic Status</u>			
Parent's Income			
Less than \$12,000	10	2	12
\$12,000 to 19,999	14	6	20
\$20,000 to 49,999	38	36	74
Missing	<u>--</u>	<u>6</u>	<u>6</u>
Total	62	50	112
<u>Parents' Occupation^a</u>			
Father			
Class 1	6	6	12
Class 2	2	4	6
Class 3	10	6	16
Class 4	12	12	24
Class 5	29	22	51
Missing	<u>3</u>	<u>--</u>	<u>3</u>
Total	62	50	112

^aAppendix G shows occupational classifications according to Lewin-Epstein (1981).

Table 2. Continued

Variable	Treatment	Control	Total
Mother			
Class 1	8	7	15
Class 2	1	4	5
Class 3	3	0	3
Class 4	9	8	17
Class 5	38	30	68
Missing	<u>3</u>	<u>1</u>	<u>4</u>
Total	62	50	112
<u>Parents' Education</u>			
Father			
Less than high school	9	9	18
High school	27	22	49
High school voc. ed.	6	2	8
Some college	11	14	25
Bachelor's/above	7	3	10
Missing	<u>2</u>	<u>-</u>	<u>2</u>
Total	62	50	112
Mother			
Less than high school	16	6	22
High school	27	25	52
High school voc. ed.	4	6	10
Some college	9	8	17
Bachelor's/above	6	4	10
Missing	<u>-</u>	<u>1</u>	<u>1</u>
Total	62	50	112

adolescents indicated that their fathers have high school vocational education training. Eighteen and twenty adolescents indicated that their fathers and mothers, respectively, had not completed a high school education. Table 2 presents information on gender, current work status and SES.

Parental influence and influence of others

When these adolescents were asked the extent to which their parents have influenced their future plans after high school, an average number (70 adolescents) indicated that their parents have either somewhat or truly influenced their plans for the future. This kind of influence may also include their career plans as well as family life plans. When they were asked how well significant others (such as close relatives, teachers, friends, guidance counselors) have influenced their future plans after high school, an average number of 62 adolescents indicated that significant others have either somewhat or truly influenced their plans for the future. These two results show the importance of parental involvement in influencing adolescents' future work and family plans. These findings suggest a need for greater cooperation between parents and others who help adolescents plan for work and family life in the future. It also provides evidence of the importance of dynamic interaction between home, schools, and social environment on adolescents' overall work and family life development. Table 3 presents information on parental influence and influence of significant others.

Parental aspirations and aspirations of others

Almost half (64) of the adolescents indicated that their fathers aspired for them to go to college after high school. Only 14 indicated that their fathers aspired for them to either enter a trade school or enter military service, while 12 indicated that their father aspired for them to take a full time job and 22 of them didn't know what their fathers aspired for them to do after high school.

Table 3. Influence of parents and significant others on future plans

Variable	Treatment	Control	Total
How truly have the following people influenced your plans after high school?			
<u>Father</u>			
Very true	21	17	38
Somewhat true	17	15	32
Not at all true	10	8	18
Does not apply	<u>14</u>	<u>10</u>	<u>24</u>
Total	62	50	112
<u>Mother</u>			
Very true	15	12	27
Somewhat true	22	21	43
Not at all true	16	11	27
Does not apply	<u>9</u>	<u>6</u>	<u>15</u>
Total	62	50	112
<u>Significant others</u>			
Relatives			
Very true	19	15	34
Somewhat true	23	18	41
Not at all true	14	6	20
Does not apply	<u>6</u>	<u>11</u>	<u>17</u>
Total	62	50	112
Teachers			
Very true	20	19	39
Somewhat true	24	19	33
Not at all true	12	5	17
Does not apply	<u>6</u>	<u>7</u>	<u>13</u>
Total	62	50	112
Guidance Counselor			
Very true	23	22	45
Somewhat true	25	15	40
Not at all true	8	4	12
Does not apply	<u>6</u>	<u>9</u>	<u>15</u>
Total	62	50	112

Table 3. Continued

Variable	Treatment	Control	Total
Friends			
Very true	16	15	31
Somewhat true	28	18	46
Not at all true	15	6	21
Does not apply	<u>3</u>	<u>11</u>	<u>14</u>
Total	62	50	112

A higher number (79 adolescents) indicate that their mothers aspired for them to go to college, while 24 of them indicated that their mothers either wanted them to go to a trade school or get a job. Only 2 of them indicated that their mothers wanted them to enter the military, as opposed to 9 who said that their fathers wanted them to enter the military. The fact that a very small number of the parents wanted them to enter the military service may be a gender issue, because a majority of the respondents were female. Military service is still perceived as a male occupation in the United States.

Adolescents' self-aspiration

A total of 65 adolescents indicated a high aspiration for college education, 18 aspired to get a full time job after high school, 8 will go to a trade school, 5 will enter military service, while 16 of the adolescents had no plans after their high school education. Table 4 shows information on parental aspirations, self-aspirations, and aspirations of significant others.

Table 4. Aspirations of parents and significant others on future plans

Variables	Treatment	Control	Total
What do the following people aspire for you to do after graduating from high school?			
<u>Father</u>			
Go to college	37	27	64
Go to trade school	3	2	5
Enter military service	4	5	9
Get a job	7	5	12
Don't know	<u>11</u>	<u>11</u>	<u>22</u>
Total	62	50	112
<u>Mother</u>			
Go to college	49	30	79
Go to trade school	5	5	10
Enter military service	0	2	2
Get a job	6	8	14
Don't know	<u>2</u>	<u>5</u>	<u>7</u>
Total	62	50	112
<u>Guidance counselor</u>			
Go to college	46	24	70
Go to trade school	2	6	8
Enter military service	--	2	2
Get a job	4	2	6
Don't know	<u>10</u>	<u>16</u>	<u>26</u>
Total	62	50	112
<u>Teacher</u>			
Go to college	46	26	72
Go to trade school	1	4	5
Enter military service	--	1	1
Get a job	1	3	4
Don't know	<u>14</u>	<u>16</u>	<u>30</u>
Total	62	50	112

Table 4. Continued

Variable	Treatment	Control	Total
<u>Friends</u>			
Go to college	34	25	59
Go to trade school	4	2	6
Enter military service	5	3	8
Get a job	8	6	14
Don't know	<u>11</u>	<u>14</u>	<u>25</u>
Total	62	50	112
<u>Self</u>			
Go to college	39	26	65
Go to trade school	5	3	8
Enter military service	1	4	5
Get a job	11	7	18
Don't know	<u>6</u>	<u>10</u>	<u>16</u>
Total	62	50	112

Knowledge Test

Pretest

The 35-item Work and Family Knowledge Test (WFKT) was administered as both a pretest and a posttest. For the pretest the total test score had a mean of 20.48 and a standard deviation of 5.75. The standard error of measurement was .47 and the range of scores was 6 to 31.

Posttest

Results for the same 35-item WFKT used as a posttest showed an alpha reliability of .87, a mean score of 22.27, a standard deviation of 6.67 and the standard error of measurement of .63. The range of

Table 5. Test statistics for WFKT-post

Characteristics	Posttest Statistics
Number of items	35
Number of students	107
Reliability coefficient ^a	0.87
Mean score	22.28
Standard deviation	6.58
Standard error of measurement	.63
Range of scores	4 - 31

^aReliability coefficient was calculated using the Cronbach's coefficient alpha formula.

scores was 4 to 31. Table 5 presents the test statistics for knowledge test.

Comparison Among the Groups (WFKT)

Table 6 presents the results of the Analysis of Covariance. The Analysis of Covariance was used to determine the effects of curriculum Balancing Work and Family Life on the treatment and control group, the teacher, and the interaction of teachers and groups on WFKT-post using WFKT-pre as the covariate.

The results showed significant main effects for groups ($F_{1,1} = 22.26$; $p \leq .001$) and also for teachers ($F_{1,4} = 2.42$; $p \leq .05$). However, there was no significant ($p > .05$) interactions between groups and the teachers, meaning that significant differences found among treatment and control groups are independent of teachers' influence.

Statistically significant differences ($p \leq .001$) were found between the treatment group who received BWKT curriculum instruction and the control group who did not. Significant differences ($p \leq .05$) were also found for teachers, which can be expected. Experiences have shown that teachers differ in their teaching methods, classroom management and in their philosophy of teaching. Because no two teachers present curriculum materials to their students in exactly the same way, the significant differences found among teachers is a normal expectation. The mean posttest score for the treatment group after adjusting for variance of pretest, 24.6, was significantly higher than the mean posttest score of 19.56 for the control group. Table 7 presents the adjusted mean scores for group by teacher and combined adjusted means for group. More variability in means were found for the control group by teacher than for the treatment group in the posttest. However, the narrower range of variability for the treatment group may have been due to a test ceiling effect resulting from the increased knowledge of BWFL concepts by the treatment group in the posttest.

The results indicate the effectiveness of the curriculum Balancing Work and Family Life based on examinations of adjusted mean scores for groups and in the interpretation of the significant main effects and lack of significant interaction effect for groups and teachers. It was hypothesized that significant differences would be found between the knowledge of the group who received instruction and the knowledge of the group who did not. The results of this study

Table 6. Significant F-ratios for group by teacher on WFKT-post

Source of Variance	DF	MS	F-Ratio
Covariate (Pretest)	1	1253.85	45.99***
Main Effect	5	168.67	6.19***
Group	1	606.92	22.26***
Teacher	4	81.63	2.99*
Group by teacher interaction	4 (4)	20.84	.76
Explained	10 (9)	218.06	7.99*
Residual	101	27.26	
Total	111	44.45	

* $p \leq .05$.*** $p \leq .001$.

Table 7. Mean scores and adjusted mean scores for WFKT-post using WFKT-pre as covariate

Teacher	Treatment		Control	
	Mean	Adjusted Means	Mean	Adjusted Means
2	23.42	23.63	14.71	17.25
3	26.33	26.74	20.25	19.85
4	23.55	21.76	21.00	19.15
5	26.90	25.87	19.50	19.90
6	25.06	25.51	21.77	22.83
Combined Adjusted means		24.70		

support the hypothesis. It was clear from this finding that although the teacher under whom the students learn the information did affect the posttest score ($p \leq .05$), the variable attributing the strongest significant effect ($p < .001$) was whether or not the group received BWKF curriculum instruction. Table 6 presents the significant

F-ratios, and Table 7 presents the adjusted means for group and teacher and the combined adjusted means for group.

Future Likelihood Inventory (FLI)

To determine the major dimensions underlying adolescents' future work and family life, principal components analysis with varimax rotation was applied to the ratings of the 15-item family life scale and to the ratings of the 25-item work life scale of Future Likelihood Inventory. The total number of valid cases in the FLI-post data were utilized for factor analysis purposes. A three factor solution was most meaningful for each scale. Items were placed into factors based upon size of factor loadings and rationality of fit. Factors were determined by examining items with loadings (positive and negative) greater than .30 (Mumaw & Nichol, 1972), and where items loading on a factor appear to present similar concepts.

Family life scale

The three factors for the family life scale explained 52.7% of the total variance. The three factors were named "marital status," "parental status," and "cohabitation." Table 8 includes factor loadings, eigenvalues, percentage of variance explained, and reliability for each factor.

Factor 1, "marital status" (MASTATUS), has six item loadings ranging from .53 to .84. The alpha reliability was .69. The three strongest loading items measured changing marital situation. They were: be married more than once, .84; be married only once, -.82; and

be divorced more than once, .75. That the item be married only once loads negatively on factor 1 may be explained by the awareness on the part of the adolescents of the general trend in marital life in American society, and the realization that the trends might continue into the future. Other items on factor 1 were: be divorced only once, be a stepparent, and be a single parent. If the adolescent will be married more than once, be divorced more than once, the possibility then will be that the adolescent may also become a stepparent or single parent at one point in their life.

Table 8. Principal components analysis of FLI (family life factors)

Items	Factors Loadings		
	Marital Status	Parental Status	Cohabitation
Be married more than once	.84		
Be married only once	-.82		
Be divorced more than once	.75		
Be divorced only once	.63		
Be a stepparent	.58		
Be a single parent	.53		
Be a parent		.96	
Be a grandparent		.81	
Remain unattached and unmarried		-.48	
Have a roommate of opposite sex			.70
Live with someone of the opposite sex in an intimate relationship, without being married			.65
Have a roommate of the same sex			-.33
Eigenvalue	4.40	1.93	1.66
% Variance Explained	29.30	12.90	10.50
% Total Variance Explained	52.70		
Reliability	.69	.80	.57

Factor 2, "parental status" (PASTATUS), comprised three items with two very strong item loadings of .96 and .81. The third item loading was lower and negative, -.48. The alpha reliability for the factor was .80. The two strongest loading items, ratings of parental situation, were: be a parent, and be a grandparent. The item, remain unattached and unmarried, loaded negatively on factor 2. Of course, if the adolescents planned to remain unmarried and unattached, the possibility is greater that they may neither become parents nor grandparents.

Factor 3, "cohabitation" (COHAB), had three item loadings of -.33, .65, and .70, with an alpha reliability of .57. The two items loading positively on the factor were ratings of living arrangement in a heterosexual situation, including living with someone of the opposite sex in an intimate relationship without being married and having a roommate of the opposite sex. The negative loading item deals with having a roommate of the same sex, which these adolescents didn't perceive as viable.

Work life scale

The factors for the work life scale explained 36.6% of the variance. The three factors which seemed meaningful for this scale were named "workplace characteristics," "benefits of work," and "flexible work schedule." Table 9 presents factor loadings, eigenvalues, and percentage of variance explained by each factor.

Factor 4, "workplace characteristics" (WKCHAR), comprised 13 items loading from .31 to .60, with a reliability of .79. Five of

these items appeared to be a measure of technological orientation in the workplace. The items were: work with numbers or information, work in industry, use robots, work in an office, and work with computers. The remaining items measure other characteristics of the workplace.

Factor 5, "benefits of work" (BENWRK), had six items loading from .40 to .64. Reliability on this factor was .68. Items loading on this factor show ratings of reasons for working, which include to work with people, to earn more money than their parents did at their age, to enjoy work more than their parents did at their age, to be married to a working spouse, and to work full time. The item that loaded negatively on this factor, married to a nonemployed spouse, may be a reflection of adolescents' realistic perceptions of the inflationary trends and current need for two income families in our society, both of which are most likely to continue into the future (Burge, 1989; Couch, 1989). Given these perceived economic and demographic changes, the adolescents in this study probably could not perceive themselves being married to nonworking spouses. The fact that the majority of the respondents (93 out of 112) were female may have strongly influenced the negative perceptions towards nonworking spouses, because the female respondents probably expect their spouses to work and provide for their families as is the traditional family structure in the United States, where the husband is the breadwinner.

Factor 6, "flexible work schedule" (FLEXWRK), consisted of three items with item loadings of .40, -.53, and .54. Two of the items

Table 9. Principal components analysis of FLI (work life factors)

Items	Factors		
	Workplace Characteristics	Benefits of Work	Flexible Work Schedule
Work primarily with numbers or information	.60		
Work in industry	.59		
Use robot at work	.57		
Work in an office	.56		
Use computer at work	.52		
Are in 2nd or 3rd career	.48		
Travel at work	.45		
Work in a large organization	.43		
Be self employed	.43		
Bring home larger paycheck than spouse	.41		
Changed jobs at least once	.39		
Have education beyond a bachelor's degree	.33		
Work primarily with things or hands	.31		
Work mainly with people		.64	
Earn more money than parent at your age		.62	
Enjoy work more than parent at your age		.59	
Married to a working spouse		.42	
Married to a nonemployed spouse		-.41	
Work full time		.40	
Plan own work hours or schedule			.54
Work full time while you have infants or small children			-.53
Do at least half of work at home			.40
Eigenvalue	4.10	3.10	2.00
% Variance Explained	16.30	12.30	7.90
% Total Variance Explained	36.60		
Reliability	.79	.68	.44

reflect ratings of flexible work hours. The items were: planning own work hours, and doing at least half of work at home. The third item which loaded negatively on this factor was working full time while you have infants or young children. The negative loading may have occurred because the majority of adolescents who were female may have perceived flexible work schedule as more useful when nursing a baby and probably would not be employed full time during this period.

For all items showing negative item loadings, responses were recoded to reflect the same direction for all items in a factor before the reliability was calculated and before further analyses were run. Reliabilities of the six factors were calculated using Cronbach's coefficient alpha method. Borg and Gall (1988, pp. 257-259) consider reliability coefficients of .65 to .85 to be reasonable for research purposes. Two factors, "cohabitation," and "flexible work schedule," have reliabilities of .57 and .44, respectively, which are below this recommended range. However, each of the factors has only three items loading on it, partially explaining the low reliability levels. Because the resulting factors contained a varying number of items, and for purposes of comparison, factor scores were computed as the average item score for items in each factor.

Perceptions of Adolescents' Future Work and Family Life (FLI) Factors

Differences between perceptions of the treatment group and the control group were compared on the six FLI factors: workplace characteristics (WKCHAR), benefit of work (BENWRK), flexible work

schedule (FLEXWRK), marital status (MASTATUS), parental status (PASTATUS), and cohabitation (COHAB). Analyses of Covariance (ANCOVA) procedures with the pretest as a covariate were utilized for testing the effect of curriculum (BWFL) instruction on adolescents' perceptions of their future work and family life. The results of the analyses showed statistically significant differences ($p < .05$) between the groups for MASTATUS, and no statistically significant differences ($p > .05$) between the groups for the remaining five factors. In other words, the BWFL curriculum had a significant effect on adolescents' perceptions about their future marital considerations when controlling for their pretest marital status score. In examining the mean and the adjusted mean scores for each factor, factor scores generally remained stable over time. This same stability of work and family perceptions over time also was reported in Blinn (in review). For example, Blinn (in review) found that the dimensionality of perception of future work and family by pregnant adolescents remains fairly stable as they move from the fourth month of pregnancy to the seventh month. Similarly, the adolescents in this study did not seem to differ significantly in their perceptions of work and family life in the future before and after instruction except in their perceptions of marital life (see Table 11 for stability of factor scores over time).

It was hypothesized that significant differences would be found in adolescents' perceptions of future work and family life between adolescents who receive BWFL instruction and those who do not. This

Table 10. F-ratios for separate FLI-post factors by groups and teachers with FLI-pre factors as covariate

Factors	Sources of variance	DF	MS	F-Ratios
<u>WKCHAR-post</u>	Covariate (WKCHAR-pre)	(1)	9.047	43.853***
	Main effect	5	.070	.338
	Group	1	.106	.267
	Teacher	4	.065	.275
	Group by teachers	4 (4)	.020	.619
	Explained	10 (9)	.991	4.802
	Residual	90	.206	
	Total	100	.285	
<u>BFWK-post</u>	Covariate (BFWK-pre)	(1)	.333	1.072
	Main effect	(5)	.215	.652
	Group	1	.133	.405
	Teachers	4	.234	.709
	Group by teachers	4	.635	1.930
	Explained	10	.393	1.205
	Residual	91	.329	
	Total	101	.336	
<u>FLWK-post</u>	Covariate (FLWK-pre)	1	.045	.088
	Main effects	5	.283	.556
	Groups	(1)	.010	.020
	Teachers	(4)	.354	.695
	Group by teachers	4 (4)	.170	.333
	Explained	10 (9)	.214	.420
	Residual	92	.510	
	Total	102		
<u>MASTA-post</u>	Covariate (MASTA-pre)	1	7.202	15.030***
	Main effects	5	.492	1.026
	Group	(1)	2.375	4.956*
	Teachers	(4)	.066	.138
	Group by teachers	4 (4)	1.030	2.149
	Explained	10 (9)	1.378	2.874**
	Residual	92	.479	
	Total	102	.567	

*p ≤ .05.

**p ≤ .01.

***p ≤ .001.

Table 10. Continued

Factors	Sources of variance	DF	MS	F-Ratios
<u>PASTA-post</u>	Covariate (PASTA-pre)	1	7.042	11.626***
	Main effects	5	.323	.533
	Group	(1)	1.253	2.069
	Teacher	(4)	.180	.296
	Group by teacher	4 (4)	2.409	3.978**
	Explained	10 (9)	1.829	3.020**
	Residual	92	.606	
	Total	102	.726	
<u>COHAB-post</u>	Covariate (COHAB-pre)	1	16.567	24.973***
	Main Effects	5	2.226	3.356**
	Group	(1)	.858	1.294
	Teacher	(4)	2.730	4.116**
	Group by teacher	4 (4)	.491	.740
	Explained	10 (9)	2.966	4.471***
	Residual	92	.663	
	Total	102	.889	

study supported the hypothesis for only one factor, MASTATUS. The lack of significant differences for the remaining five factors, WKCHAR, BENWRK, FLEXWRK, PASTATUS, COHAB, may be due to similarities of these groups of adolescents concerning their current work and family life experiences, and/or their experiences with other home economics courses. One significant teacher effect was found for the COHAB-post factor. Table 10 presents the F-ratios for the six factors, and Table 11 shows the group means and the adjusted mean scores for each factor.

Table 11. Mean and adjusted mean scores^a on FLI-post individual factors by group

Factors	Treatment			Control		
	Mean	Adj. mean	n ^b	Mean	Adj. mean	n ^b
WKCHAR-post	2.72	2.71	53	2.77	2.78	48
BFWK-post	4.12	4.11	53	4.03	4.03	49
FLWK-post	3.02	3.04	54	3.02	3.02	49
MASTA-post	1.81	1.84	54	2.17	2.14	49
PASTA-post	4.12	4.14	54	3.97	3.95	49
COHAB-post	3.21	3.25	54	3.19	3.16	49

^aFactor score is computed as the average item score for items in a factor using the scale 1 = Extremely unlikely to 5 = Extremely likely.

^bn = number of responses by group.

Relationship of Demographic and Self-concept Characteristics on Adolescents' Knowledge and Perceptions of Work and Family Life

Shavelson, Hubner, and Stanton (1976) postulate that self-concept in general terms is one's perception of self, which is basically derived from interactions with significant others, self-attributions, and the overall experiential aspects of the social environment. The self-concept structure was hypothesized by Shavelson et al. (1976) as being multidimensional with perceptions of behavior at the base moving to the inferences about self in academic and nonacademic areas and finally inferences about self in general. This framework was used as a basis for determining relationships between selected demographic and self-concept characteristics of adolescents' knowledge and perceptions of work and family life roles. Multiple regression procedures were used to analyze the data.

The criterion variable, WFKT posttest score, was regressed on the predictor variables of eight self-concept factors, six FLI-post factors and the nine selected demographic variables of gender, parental influence (PINFLUEN), influences of others (INFLOTHER), socio-economic status (SESTATUS), parental aspiration (PASPIRAT), self-aspiration (SASPIRAT), aspirations of others (OASPIRAT), and current work status (CWSTATUS). The regression analysis was repeated for the six FLI-post factors (perceptions of adolescents), which subsequently became dependent variables in each analysis. A stepwise selection method was used. The correlation matrix for the variables is presented in Table 12. (See Appendix E for variable abbreviations.)

Tables 13 and 14 present the significant independent variables, beta coefficients, and R^2 for the regression models. In the first analysis, adolescents' knowledge of work and family was significantly related ($p \leq .05$) to five variables, namely: flexible work schedule, general self-concept, parental influence, others' aspirations, and socio-economic status. The first variable explained 8 percent of the variance, while the remaining four variables each explained 5 percent of the variance, respectively, for a total of 28 percent of the variance explained when all five variables enter the regression equation. (Appendix F presents summary means, standard deviations, and variance for regression variables.)

The next series of separate regression analyses for FLI-post factors as dependent variables showed that adolescents' perceptions of future work and family life factors were significantly related to

other demographic and self-concept variables. First, the perceptions of adolescents in the current study about future work life showed workplace characteristics (WKCHAR-post) to be significant ($p \leq .01$) and positively related to adolescents' general self-concept (GSELFCO), with 12 percent of the variance explained. Secondly, benefit of work (BFWK-post) was significant ($p \leq .01$) and positively related to self-aspiration (SASPIRAT) and honesty. The two variables each explained 6 percent of the variance, respectively, for a total of 12 percent variance explained. Thirdly, flexible work schedule (FLWK-post) was also significant ($p \leq .05$) but negatively related to adolescents' current work status (CWSTATUS) and knowledge (WFKT-post) scores. The two variables explained 16% of the variance.

The last three regression analyses on adolescents' perceptions about family life in the future showed that marital status (MASTA-post) was significant ($p \leq .05$), but negatively related to the knowledge score. The variable explained 7 percent of the variance. The parental status (PASTA-post) factor was also related to aspirations of others and honesty, and the two variables explained 10 percent of the total variance. While the contribution to the cohabitation (COHAB-post) factor was significant ($p \leq .01$), it was negatively related to aspirations of others and relationship with opposite sex; the variables explained 7 percent and 6 percent of the variance, respectively. (See Table 14 for summary regression models.)

Table 12. Correlation matrix^a

	PSTS	WKCHAR- POST	PSTB	PSTF	PSTM	PSTP	PSTC	GEN	PIFL	INFL	PASP	OASP
PSTS	1.000											
PST-												
WKCHAR	-.198	1.000										
PSTB	.199	.196	1.000									
PSTF	-.258	-.003	-.196	1.000								
PSTM	-.280	.386	-.077	.165	1.000							
PSTP	.130	-.142	.168	.020	-.325	1.000						
PSTC	-.071	.006	-.323	.027	.089	.031	1.000					
GEN	-.031	-.004	.215	.195	-.130	-.019	-.135	1.000				
PIFL	.293	-.057	.155	-.101	-.062	-.120	-.096	.016	1.000			
INFL	.123	.092	.233	-.014	-.206	.145	-.291	.045	.406	1.000		
PASP	.232	.035	.198	-.167	-.017	-.014	-.092	.029	.337	.286	1.000	
OPSP	.183	.183	.233	-.202	-.063	.153	-.311	.061	.008	.433	.504	1.000
SASP	.155	-.081	.250	-.145	.003	.041	-.179	-.180	.247	.351	.565	.493
SEST	.182	.078	-.072	.152	-.185	.153	.178	.227	-.118	-.029	.019	-.027
GRP	-.467	.094	-.208	.097	.292	-.054	.068	-.102	.037	-.139	-.258	-.276
CWST	.170	-.062	-.166	.058	-.036	-.037	.185	-.096	.122	.022	.058	.048
PRSOL	.070	.069	.012	-.003	-.050	-.026	-.007	-.020	-.079	.035	.067	.273
PHYA	.046	-.082	-.115	-.033	-.096	-.064	.050	-.026	.075	.167	-.035	.292
SASX	.058	-.091	.297	-.060	-.099	.181	-.226	.192	.123	.146	.098	.266
OPSX	-.064	.111	-.105	.042	-.067	.086	.249	.011	.010	.077	.144	.157
PART	.075	-.188	.089	-.128	-.153	.226	-.161	-.096	.248	-.011	.029	-.010
HNEST	.228	-.003	.098	.038	-.167	.133	-.033	-.016	-.145	-.115	-.023	.147
EMSB	.123	-.015	-.018	-.092	-.003	-.080	-.169	.049	.152	.019	.061	.260
GSEC	.064	.059	.097	.017	-.055	.148	-.106	.079	.181	.066	.013	.348

^aSee Appendix E for variable abbreviations.

Table 12. Continued

	SASP	SEST	GRP	CWST	PRSOL	PHYA	SASX	OPSX	PART	HNEST	EMSB	GSEC
SASP	1.000											
SEST	-.175	1.000										
GRP	-.183	-1.99	1.000									
CWST	.196	.082	.241	1.000								
PRSOL	.046	-.026	-.056	.041	1.000							
PHYA	.061	-.060	.074	.143	.286	1.000						
SASX	.121	-.202	-.132	-.133	.228	.146	1.000					
OPSX	-.077	.062	-.051	-.033	.237	.437	.055	1.000				
PART	.040	-.099	.132	.028	.095	.194	.240	-.019	1.000			
HNEST	-.005	.085	-.155	-.065	.288	.288	.202	.109	.166	1.000		
EMSB	.053	-.199	.088	-.015	.251	.407	.422	-.116	.343	.181	1.000	
GSEC	.072	-.008	.049	.087	.260	.663	.377	.325	.291	.242	.422	1.000

Table 13. Summary of multiple regression analyses on adolescents' knowledge of work and family life

Dependent Variable	Significant Independent Variables	Beta Coefficient	R ² for each step
WFKT-Post (Knowledge Test)	FLWK-post ^a	-.24*	.08
	GSELF ^b	-.23*	.13
	PINFLUEN ^c	.26*	.18
	OASPIRAT ^d	.22*	.23
	SESTATUS ^e	.21*	.28

^aFlexible work schedule.

^bGeneral self-concept.

^cParental influence.

^dOthers' aspiration.

^eSocio-economic status.

*p ≤ .05.

Discussion

The purpose of the regression analyses was to determine the relationships between selected demographic variables and self-concept characteristics of adolescents' knowledge and perceptions of work and family life. The results of the multiple regression analyses showed that parental influence on adolescents' future plans was significant ($p \leq .05$) and positively related to adolescent knowledge of work and family life. This finding supports the work of Corder and Stephan (1984), who found that females' future plans for combination of work, marriage, and motherhood; and males' plans for their future

Table 14. Summary of multiple regression analyses on adolescents' perceptions of work and family life

Dependent Variables	Significant Independent Variables ^a	Beta Coefficient	r ² for each step
WKCHAR-post ^a	GSELFCO	.34**	.12
BFWK-post ^a	SASPIRAT	.33**	.09
	GENDER	.29*	.15
FLWK-post ^a	PSTCORE	-.29**	.08
	CWSTATUS	-.27*	.17
MASTA-post ^a	PSTSCORE	-.26*	.07
PASTA-post ^a	OASPIRAT	.24*	.05
	HONESTY	.23*	.10
COHAB-post ^a	OPPSEX	-.25*	.13
	OASPIRAT	-.28*	.07

^aSee Appendix E for variable abbreviations.

*p ≤ .05.

**p ≤ .01.

wives' combination of work, marriage, and motherhood were influenced by their family background. This result also supported a study by Schultz (1988) that indicated that American teenagers trusted their parents and that 47% will turn to their parents when making important decisions. Even though the relationship between parental influence and knowledge of work of adolescents in the current study was weak, the result of the study suggests that parents need to be more involved in helping adolescents make plans for combining work and family life in the future. It appears that adolescents respect and trust their parents and look to them in making plans for their future. This result also may mean that adolescents look to their parents for

guidance and assistance when planning their work and family life. This may suggest to educators that in planning and developing a balancing work and family life curriculum they need to involve the concept of parental influence in the curriculum content. Parental inputs and involvement appear to be very important and needed when helping adolescents plan how to balance work and family life. Flexible work schedule and general self-concept were negatively related to knowledge of work and family life ($p \leq .01$). This negative relationship may indicate that adolescents in this study are not sure of how flexible work schedule could be beneficial to them in the future. The negative relationship may have reflected their current experience with their jobs where little or no flexibility exists to permit positive reflection as to what their future work schedule might be.

It was hypothesized that a significant relationship would be found between selected demographic variables and the self-concept characteristics of adolescents and their knowledge regarding work and family roles in the future. The hypothesis was supported in this study. Parental influence, aspirations of others, and socio-economic status were significantly ($p \leq .05$) and positively related to knowledge of work and family life. These results further strengthen the findings of Bayer (1975), Bedeian (1977), Bielby (1978), Hout and Morgan (1975) that high SES characteristics, with particular reference to educational level of parents and support of significant others, positively influence females' occupational plans. Sewel and Hauser

(1975) said that high self-esteem is very much associated with female adolescents' aspirations to pursue a high status occupation or career.

It appears that for this study most self-concept factors were not related to knowledge of work and family life concepts. The only self-concept factor that emerged in the regression equation using knowledge of work and family life as the dependent variable was general self-concept, which explained only 5 percent of the variance, and the relationship was negative. The lack of significant relationships between work and family life concepts and nonacademic self-concept are consistent with previous research findings with the SDQ series instruments (Marsh, Relich, & Smith, 1983; Hansford & Hattie, 1982; Byrne, 1984), which found no significant relationships between nonacademic self-concept and academic subject area self-concepts. The general self-concept which deals with how adolescents generally feel about themselves (positively or negatively) was the only self-concept factor that emerged. This also supports findings of previous studies on self-concept. It is clear from these results that sociological and environmental factors rather than physiological factors are very important variables that are related to adolescents' knowledge of work and family life.

The fourth hypothesis suggests that a significant relationship would be found between selected demographic and self-concept characteristics of adolescents and their perceptions regarding work and family roles in the future. The hypothesis was supported. Four

demographic variables: self-aspirations (SASPIRAT), gender (GENDER), current work status (CWSTATUS), and aspirations of significant others (OASPIRAT) were significantly related ($p \leq .05$) to adolescents' perceptions about work and family roles in the future. Three of the self-concept variables, general self-concepts (GSELFCO), relationship with the opposite sex, and honesty, were also significantly ($p \leq .05$) related to adolescents' perceptions about work and family roles in the future.

The results of these regression analyses reinforced previous research findings on the importance of gender, self-aspiration, general self-concepts, parental influence, and aspirations of significant others in relation to adolescents' perceptions about future work and family life. For example, Poole (1982) found gender differences in adolescents' perceptions in relation to future work, marriage and family roles. In his study, Poole found that girls were more likely than boys to state expectations of their future marriage partners, and girls frequently indicated that they would stop working when they are married or start having children, and perhaps would return to work when their children are of school age and attend school. Similarly, gender differences were found in the current study. The majority of the respondents, however, were female. The large female proportion in the sample seems to have a significant effect on the overall perceptions of the respondents in this study. The respondents perceived themselves in traditional family roles where men will work outside the family and provide for the family's needs.

The current study also supported Corder and Stephan (1984) and Bielby (1978) who found that a positive relationship exists between the support of successful significant others and the aspirations to combine work and family roles in women. Bedeian (1977) indicated that high self-esteem is associated with female adolescents' aspirations to pursue a high status occupation or career. The significant relationships between the FLI factors (perception variables) and the demographic and self-concept characteristics should be interpreted with caution because each variable in the equation explained a small percentage of the variance. However, for practical purposes, the results of the regression analyses show that sociological and psychological variables such as gender, self-aspirations, current work status, general self-concepts, aspirations of others, relationship with opposite sex, and honesty, notwithstanding the influence of academic or knowledge variables, were very important to how adolescents perceived their roles in work and family life in the future.

Finally, it should be emphasized that this study examined the overall effect of curriculum instruction on knowledge and perceptions of work and family life concepts. Future research should examine the effect of specific variables pertaining to the quality and depth of instruction on balancing work and family life concepts. An instrument containing a larger number of items with greater content representativeness may be devised that would more accurately measure depth and scope of balancing work and family life concepts included in

the curriculum. Any replication of this study also will require a more precise method of ensuring teaching consistency. An inservice training for classroom teachers who will teach the curriculum and administer the measurement devices could provide a different result from the current study. A larger sample size with more teachers participating also would be helpful in extending the generalizability of the results.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The major purpose of this summative evaluation study was to determine the effect of an instructional program using the curriculum Balancing Work and Family Life (BWFL) on adolescents' knowledge and perceptions about future work and family life. The goal of summative evaluation is to assess program effect and to determine cause and generalizability (Bloom, Hastings, & Madaus, 1971; Borg & Gall, 1989; Herman, Morris, & Fitz-Gibbon, 1987; Worthen & Sanders, 1987). Summative evaluation procedures may involve comparing program participants' performance with a group receiving no program (Herman et al., 1987). A second purpose of the study was to determine the relationships of demographic and self-concept variables on adolescents' knowledge and perceptions of future work and family life roles.

To achieve the objectives of the study three instruments were adapted using a variety of standard scales and items. Specifically, the Work and Family Knowledge Test (WFKT) was used to determine adolescents' knowledge of work and family life; the Future Likelihood Inventory (FLI) was used to determine perceptions of adolescents about their future work and family life; the Self-Description Questionnaire (SDQIII) was used to determine adolescents' self-concept and its relationship to knowledge and perceptions of work and family roles, and a demographic questionnaire was developed to determine the

relationship of selected demographic variables to adolescents' knowledge and perceptions regarding future work and family roles in the future. The WFKT instrument was reviewed by a panel of experts in child development, family environment, and home economics education to assess content validity, accuracy, and usability. A nonequivalent control group design was used.

The sample for the study was 120 adolescents who were enrolled in six secondary vocational home economics programs in the state of Iowa. Six vocational home economics teachers in the participating schools administered the pretest and posttest instruments. Valid responses were received from five teachers with 112 adolescents who participated in the posttest. Individual scores were used to analyze these data.

Work and Family Knowledge Test (WFKT-post)

Analysis of covariance (ANCOVA) procedures with WFKT-pre as a covariate were used to determine the effect of curriculum instruction on adolescents who received curriculum instruction using BWFL and those who did not. The hypotheses tested in the study and the summary findings are presented:

H_{A1} : There will be a significant difference in the knowledge of work and family concepts between the adolescents who received curriculum instruction using BWFL and those who did not. The findings supported this hypothesis. A statistically significant difference ($p \leq .01$) was found between the groups with the treatment group scoring higher than the control group; this hypothesis was accepted.

Hence, this curriculum was effective. However, this interpretation may be considered with caution due to some experimental mortality at the posttest, hence resulting in a smaller usable sample size for final data analysis.

Dimensions of Future Likelihood Inventory (FLI-post)

Factor analyses procedures were used to identify the underlying dimensions of the Future Likelihood Inventory (FLI-post). Results yielded six underlying factors namely marital status, parental status, cohabitation, workplace characteristics, benefit of work, and flexible work schedule. Factors were determined based upon factor loadings (positive and negative) of .30 and above, and rationality of fit. These factors had coefficient alpha reliabilities of .69, .80, .57, .79, .68, and .44, respectively. Of the 40 items on the FLI, only 6 items did not cluster.

Analysis of covariance (ANCOVA) procedures with FLI-pre as a covariate were used to determine the effects of curriculum instruction on adolescents' perceptions of work and family life in the future between the adolescents who received curriculum instruction using BWFL and those who did not receive instruction.

The hypothesis tested and the summary findings were as follows:

H_{A2}: There will be a significant difference in adolescents' perceptions of work and family life in the future between adolescents who received instruction using BWFL and those who did not. This hypothesis was partially supported. The results of the analyses of variance showed that a

statistically significant difference ($p \leq .05$) was found between groups for the marital status factor only. No significant differences were found between groups for the remaining five FLI-post factors.

Relationship of Demographic and Self-concept Characteristics of Adolescents' Knowledge and Perceptions Regarding Work and Family

According to Shavelson et al. (1976), self-concept is one's perception of self which is basically derived from interactions with significant others, self-attributions and the overall experiential aspects of the social environment. Based upon this framework, this study investigated the relationships among selected demographic and self-concept characteristics of adolescents' knowledge and perceptions regarding work and family role concepts. The selected demographic characteristics of interest include: gender, parental influence, influence of significant others, parental aspirations, others' aspirations, self-aspiration, current work status, and socio-economic status. Self-concept characteristics include the following factors: problem solving, physical appearance, relationship with same sex, relationship with parents, relationship with opposite sex, honesty, emotional stability, and general self-concept. The six Future Likelihood Inventory (FLI-post) factors include: workplace characteristics, benefit of work, flexible work schedule, marital status, parental status, and cohabitation. Multiple regression analysis procedures were used to analyze the data.

The hypotheses tested and the summary findings are as follows:

H_{A3}: There will be a significant relationship between selected demographic and self-concept characteristics of adolescents and their knowledge regarding work and family life roles in the future. The findings showed that adolescents' knowledge of work and family was significantly related to five variables: flexible work schedule, general self-concept, parental influence, aspirations of others, and socio-economic status. The first variable explained 8 percent, while the remaining four variables each explained 5 percent of the variance, respectively, for a total of 28% variance explained. Therefore, this hypothesis was accepted.

H_{A4}: There will be a significant relationship between selected demographic and self-concept characteristics of adolescents and their perceptions regarding work and family roles in the future. This study supported this hypothesis.

Results of regression analysis showed significant ($p \leq .05$) relationships between FLI factors and four demographic variables: self-aspirations, gender, current work status, and aspirations of others. Similarly, significant ($p \leq .05$) relationships were found between two FLI factors and two self-concept factors, namely general self-concept and honesty.

Conclusions

Several conclusions are derived from this study. First, as was hypothesized, significant differences were found in knowledge scores between adolescents who received curriculum instruction using BWFL and those who did not, indicating that:

1. The curriculum Balancing Work and Family Life was effective.
2. The curriculum had a positive effect on the knowledge of work and family life of adolescents who received the curriculum instruction.

Other important conclusions derived from this study were concerned with hypothesis two. It was hypothesized that there would be significant differences in adolescents' perceptions of work and family life between adolescents who received instruction and those who did not. Because adolescents' perceptions were significantly different on only one factor, marital status, this hypothesis was partially supported. However, for most factors the dimensionality of perception remains stable over time. It appears that participation in the curriculum instruction using BWFL did not change adolescents' initial perception on five factors: workplace characteristics, benefit of work, parental status, flexible work schedule, and cohabitation.

This result supported Blinn and Schwartz' (1988) finding that the dimensionality of perception of pregnant adolescents remained fairly stable from their fourth month of pregnancy to the seventh month of pregnancy. However, the likelihood of them experiencing some of the

dimensions was reduced at the seventh month. Hence, Blinn cited the need for more information on the concepts.

Another conclusion from this study deals with the third hypothesis, that there will be a significant relationship between selected demographic variables and self-concept characteristics and adolescents' knowledge of work and family life. These variables--flexible work schedule, aspirations of others, parental influence, general self-concept, and socio-economic status--were significantly ($p \leq .05$) related to knowledge of work and family life, and explained 28% of the variance. The hypothesis was accepted. This finding supports work by Corder and Stephan (1984). The implication of this result to educators may be a need to involve adolescents' parents in working with adolescents when studying balancing work and family life, and to also make parents aware of information on how to help their adolescents make career and family choices.

With regard to the relationship between self-concept characteristics and adolescents' knowledge of work and family life, the use of the SDQIII instrument to measure self-concept may have been inappropriate with this audience. The SDQIII was developed for late adolescents, mostly college students. Future work needs to consider more appropriate measures of self-concept when investigating its relationship to knowledge of work and family life for middle adolescents.

The last hypothesis indicated that there will be a significant relationship between selected demographic variables and self-concept

characteristics and adolescents' perceptions regarding work and family life in the future. This hypothesis was supported. The results of the regression analysis on each of the dependent variables, FLI (perception) factors, showed significant ($p < .05$) relationships between four demographic variables (SASPIRAT, GENDER, CWSTATUS, OASPIRAT) and three self-concept characteristics (GSELFCO, HONESTY, ROPPSEX). A sizeable number (85) of the adolescents in this study were working. Their current experience with their work may have something to do with the negative perceptions that they expressed towards work and family life in the future. The disproportionate representation by gender may also account for negative perceptions. Most of the respondents were female. Many perceived that they would not continue to work after marriage or after starting a family.

What may be of greater importance here is to assess the quality of instruction and identify the best strategies for assisting teachers in incorporating the curriculum BWFL into their existing family living curriculum. It is suggested that an inservice training is needed to assure that vocational home economics teachers teach the curriculum Balancing Work and Family Life more consistently in their respective schools.

In terms of methodology and sample used in this study, it is clear from the results that lack of proportional involvement of both genders skewed the overall perceptions of the adolescents in this study in favor of a more female orientation to perceptions regarding work and family life in the future. If equal numbers of the two genders were

involved in the study, the results may have been quite different. Therefore, future study should look into possibilities of involving relatively equal numbers of each gender. Also, future work might consider using experimental and control groups from an intact classroom in required subject matter areas (e.g., English, mathematics, social science, and/or even physical science classes). This may guarantee equal representation of male and female students, because male students do not elect to take home economics subjects as often as female students. Alternatively, only one gender group may be studied.

Recommendations

The following recommendations are made based on the results of this study:

1. Develop inservice training for teachers who indicate interest in teaching the curriculum in their classes prior to the start of the semester when the curriculum will be taught. The purpose of such training is to ensure greater commitment on the part of the teachers and to ensure consistency in teaching the curriculum and in administering the tests.
2. Develop a test item-bank with more items per concept and with more content representation to ensure content validation. The test bank should be pilot tested.
3. Consider alternate instruments for measuring three specific areas relating to balancing work and family life skills:
 - stress management techniques,

- decision-making skills,
 - communication skills.
4. For a qualitative approach, open ended questions might be included with the posttest that will enable students to describe their general perceptions and expectations regarding marital responsibilities and management of the home.
 5. Collect in-depth background information on family characteristics of students including the marital status, employment history, and current socio-economic status of parents.
 6. Utilize a snowball technique where treatment group subjects each identify two students with similar characteristics to participate in the control group. The two students should represent one male and one female counterpart for each student in the treatment group.
 7. Adapt the curriculum Balancing Work and Family Life for use with other age groups, including early adolescence, middle adolescence, and late adolescence. Investigate the appropriateness of using developmental task theory as a theoretical framework for the curriculum.

LITERATURE CITED

- Almquist, E. M., & Angrist, S. S. (1970). Career salience and atypicality of occupational choice among college women. Journal of Marriage and the Family, 32, 242-249.
- Almquist, E. M., & Angrist, S. S. (1971). Role model influences on college women's career aspirations. Merrill-Palmer Quarterly of Behavior and Development, 17, 263-279.
- Baruch, G. K. (1972). Maternal influences upon college women's attitude toward work and women. Developmental Psychology, 6, 32-37.
- Bayer, A. E. (1975). Sexist students in American College: A descriptive note. Journal of Marriage and the Family, 37, 391-397.
- Beckett, J. O. (1976). Working wives: A racial comparison. Social Work, 21, 463-471.
- Bedeian, A. G. (1977). The role of self-esteem and achievement in aspiring to prestigious vocation. Journal of Vocational Behavior, 11, 109-111.
- Berger, K. S. (1980). The developing person. New York: Worth Publishers, Inc.
- Bielby, D. D. V. (1978). Career sex-atypically and career involvement of college educated women: Baseline data from the 1960s. Sociology of Education, 51, 7-28.
- Blinn, L. M. (In review). Dimensions of pregnant adolescents' perceptions of their work lives in the future: Are they stable? Family Perspectives.
- Blinn, L. M., & Pike, G. (1986). How undergraduates picture their work lives in the year 2000: Implications for curriculum development. Journal of Vocational Education Research, 11, 49-69.
- Blinn, L. M., & Pike, G. (In press). How adolescents picture their interpersonal life in the future. Adolescence.
- Blinn, L. M., & Schwartz, M. (1988). How secondary home economics students picture their lives in the future: A multi-method study. Journal of Vocational Home Economics Education, 6 (1), 1-18.

- Bloom, B. S., Hastings, J. T., & Madaus, G. F. (1971). Handbook on Formative and Summative Evaluation of Student Learning. New York: McGraw-Hill.
- Bolten, K. A., & Pins, K. (1989, September 3). Working Iowa women: How much have they progressed? The Des Moines Sunday Register, p. 1A, 2A.
- Boocock, S. S. (1978). Getting started in adult life: Crucial turning point for young people. In J. G. Flanagan (Ed.), Perspectives on Improving Education - Project Talent's Young Adults Look Back (pp. 89-94). New York: Praeger Publishers.
- Borg, W. R., & Gall, M. D. (1988). Educational Research: An Introduction. Fifth Edition. New York: Longman.
- Brofenbrenner, U., & Crouter, A. C. (1982). Work and family through time and space. In S. B. Kamerman & C. D. Hayes (Eds.), Families That Work: Children in Changing World. Washington, D. C.: National Academy.
- Brown, M. (1985). Philosophical studies of home economics in the United States. East Lansing: College of Human Ecology, Michigan State University.
- Bureau of National Affairs, Inc. (1986). Work and family: A changing dynamics. A BNA special report. Washington, D.C.: Author.
- Burge, P. L. (1989). Preparing for personal side of work. Vocational Educational Journal, 64 (6), 32-33.
- Byrne, B. M. (1984). The general academic self-concept nomological network: A review of construct validation research. Review of Educational Research, 54, 427-456.
- Carl D. Perkins Vocational Education Act, Public Law 98-524. (1984). Washington, DC: U.S. Government Printing Office.
- Chafe, W. H. (1976). Looking backward in order to look forward: Women, work and social values in America. In J. M. Kreps (Ed.), Women and the American economy. Englewood Cliffs, NJ: Prentice-Hall.
- Cherlin, A. J. (1981). Marriage, divorce, remarriage. Cambridge, MA: Harvard Press.
- Chow, E. N., & Berheide, C. S. (1988). The interdependence of family and work: A framework for family life education, policy, and practice. Family Relations, 37, 23-28.

- Coleman, J. S. (1987). Families and schools. Educational Research, 16 (6)32-38.
- Corder, J., & Stephan, C. W. (1984). Females' combination of work and family roles: Adolescents' aspirations. Journal of Marriage and the Family, 46, 391-402.
- Cottle, T., Howard, P., & Peck, J. (1969). Adolescent perceptions of time: The effect of age, sex and social class. Journal of Personality, 37, 636-650.
- Couch, S. (1989). Career and family: The modern worker's balancing act. Vocational Education Journal, 64, 24-27.
- Crowley, L. (1988). Incorporating work and family concepts into vocational home economics: A survey of Iowa educators. Unpublished master's thesis, Iowa State University, Ames.
- Cummings, L. D. (1977). Value stretch in definitions of career among college women: Horatio Alger as feminist model. Social Problems, 25, 65-74.
- Degler, C. N. (1980). At odds - women and the family in America from the revolution to the present. New York: Oxford University Press.
- Duncan, O. D., Featherman, D. L., & Duncan, B. (1972). Socio-economic background and achievement. New York: Seminar Press.
- Engelbrecht, J. D., & Nies, J. I. (1988). Work/family interactions: Trends and applications. Journal of Home Economics, 76, 42-47.
- Fleming, J. S., & Watts, W. A. (1980). The dimensionality of self-esteem: Some results for a college sample. Journal of Personality and Social Psychology, 39, 921-929.
- Fraisse, P. (1963). The Psychology of Time. New York: Harper & Rowe.
- Gordon, C. (1972). Looking ahead: Self conceptions, race, and family determinants of adolescent orientations to achievement. Washington, DC: Rose Monograph Series of the American Sociological Associations.
- Greenberger, E., & Steinberg, L. (1986). When teenagers work. New York: Basic Books, Inc.
- Greene, A. L. (1963). Future time perspective in adolescents: The present of things future revisited. Journal of Youth and Adolescence, 15, 99-113.

- Hansford, B. C., & Hattie, J. A. (1982). The relationship between self and achievement/performance measures. Review of Educational Research, 52, 123-142.
- Havighurst, R. J. (1953). Human Development and Education. New York: Longmans, Green.
- Hayghe, H. (1986). Rise in mothers' labor force activity includes those with infants. Monthly Labor Review, 109 (2), 43-45.
- Herman, J. L., Morris, L. L., & Fitz-Gibbon, C. T. (1987). Evaluator's Handbook (2nd ed.). Newbury Park: Sage Publication.
- Hetherington, E. M. (1979). Divorce: A child's perspective. American Psychology, 34, 851-858.
- Hetherington, E. M., & Parker, R. D. (1986). Child Psychology: A Contemporary Viewpoint (3rd ed.). New York: McGraw-Hill.
- Home and Career. (1983). Lubbock: Texas Tech University Home Economics Curriculum Center.
- Home Economics Educators of West Virginia. (1981). Adult roles and functions: A nonlaboratory home economics course for eleventh and twelfth graders. Ripley, WV: Vocational Curriculum Laboratory.
- Hout, M., and Morgan, W. R. (1975). Race and sex variations in the causes of the expected attainments of high school seniors. American Journal of Sociology, 81, 364-394.
- Kamerman, S. B., & Hayes, C. D. (1982). Families that work: Children in a changing world. Washington, DC: National Academy.
- Kandel, D. B. (1971). Race, maternal authority, and adolescent aspirations. American Journal of Sociology, 76, 999-1020.
- Klineberg, S. L. (1967). Changes in the outlook on the future between childhood and adolescence. Unpublished doctoral dissertation, Kent State University, Kent, OH.
- Lerner, R. M. (1979). A dynamic interactional concept of individual and social relationship development. In R. L. Burgess & T. L. Huston (Eds.), Social exchange in developing relationships (pp. 271-305). New York: Academic Press.
- Leslie, L. A. (1986). The impact of adolescent assessments of parenthood and employment on plans for the future. Journal of Youth and Adolescence, 15, 29-49.

- Lessing, E. E. (1968). Demographic, developmental, and personality correlates of length of future time perspectives (FTP). Journal of Personality, 36, 183-201.
- Lessing, E. E. (1972). Extension of personal future time perspective, age, and life satisfaction of children and adolescents. Developmental Psychology, 6, 457-468.
- Lewin-Epstein, N. (1981). Youth employment during high school. Washington, D.C.: National Center for Educational Statistics.
- Marsh, H. W. (1986). Verbal and math self-concepts: An internal/external frame of reference model. American Educational Research Journal, 23 (1), 129-149.
- Marsh, H. W., Barnes, J., Cairns, L., & Tidman, M. (1984). Self-description questionnaire: Age and sex effects in the structure and level of self-concept for preadolescent children. Journal of Educational Psychology, 76, 940-956.
- Marsh, H. W., & O'Neill, R. (1984). Self-description questionnaire III: The construct validity of multidimensionality self-concept ratings by late adolescents. Journal of Educational Measurement, 21, 153-174.
- Marsh, H. W., Parker, J., & Barnes, J. (1985). Multidimensional adolescent self-concepts: Their relationship to age, sex, and academic measures. American Educational Research Journal, 22, 422-444.
- Marsh, H. W., Relich, J. D., & Smith, I. D. (1983). Self-concept: The construct validity of interpretations based upon the SDQ. Journal of Personality and Social Psychology, 45, 173-187.
- Marsh, H. W., & Shavelson, R. J. (1985). Self-concept: Its multifaceted, hierarchical structure. Educational Psychologist, 20, 107-125.
- Marsh, H. W., & Smith, I. D. (1982). Multitrait-multimethod analyses of two self-concept instruments. Journal of Educational Psychology, 74, 430-440.
- Marsh, H. W., Smith, I. D., & Barnes, J. (1985). Multidimensional self-concepts: Relationships with sex and academic achievement. Journal of Educational Psychology, 77, 581-596.
- McClam, T., & Blinn, L. (1988). Interpersonal lives in the future: Projections of undergraduate women. Perceptual and Motor Skills, 66, 71-78.

- Meyer, K. A. (1987). Sex differences of adolescent occupational status. Journal of Vocational Education Research, 12, 57-59.
- Moerk, E. (1987). Age and epogenic influences on aspirations of minority and majority group children. Journal of Counseling Psychology, 21, 294-298.
- Moss, P. (1980). Parents at work. In P. Moss & N. Fonda (Eds.), Work and the family. London: Temple Smith.
- Mumaw, C. R., & Nichol, A. (1972). Organizational styles of homemakers. A factor analytic approach. Home Economics Research Journal, 1, 34-43.
- National Center for Education Statistics. (1980). High school and beyond. Senior questionnaire. (Form 2409-03). Washington, DC: U.S. Department of Education.
- Norton, A. J., & Glick, P. C. (1979). Marital instability in America: Past, present and future. In G. Levinger & D. C. Moles (Eds.), Divorce and separation. New York: Basic Books.
- Norton, A. J., & Glick, P. C. (1986). One parent families: A social and economic profile. Family Relations, 35, 9-17.
- Norusis, M. J. (1988). SPSS-X User's Guide (3rd ed.). Chicago: SPSS Inc.
- Nuttin, R. D. (1985). Future time perspective and motivation. Hillside, New Jersey: Lawrence Erlbaum.
- Piotrkowski, C. S., Rapoport, R. N., & Rapoport, R. (1987). Families and work. In M. Sussman & S. Steinmertz (eds.), Handbook of Marriage and the Family. New York: Plenum Press.
- Pleck, E. (1976). Two worlds in one: Work and family. Journal of Social History, 10, 178-195.
- Poole, M. E. (1982). Adolescents' perceptions of their future lives. Australian Journal of Sex, Marriage and Family, 3, 181-193.
- Ridgeway, C. (1978). Parental identification and patterns of career orientation in college women. Journal of Vocational Behavior, 12, 1-11.
- Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, N.J.: Princeton University Press.

- Schultz, J. B. (1988). Survey of American Teens. A special report for the American Home Economics Association. Ames: Department of Family and Consumer Sciences Education, Iowa State University.
- Schultz, J. B., & Chung, Y. L. (1988). Family resource management theory: A framework for examining the interdependence of family and work. Paper presented at the annual meeting of the American Vocational Association, St. Louis, Missouri.
- Schultz, J. B., Crowley, L., & Culver, J. (1988). Balancing Work and Family. A Guide to Teaching. Ames, IA: Iowa State University.
- Schultz, J. B., & Henderson, C. (1985). Family satisfaction and job performance: Implications for career development. Journal of Career Development, 12, 33-47.
- Scott, J. W., & Till, L. A. (1975). Women's work and the family in nineteenth-century Europe. In C. E. Rosenberg (Ed.), The family in history. Philadelphia: University of Pennsylvania Press.
- Sewel, W. H., & Hauser, R. M. (1975). Education, Occupation, and Earnings. New York: Academic Press.
- Sewel, W. H., & Shah, V. P. S. (1968). Social class and parental encouragement and educational aspirations. American Journal of Sociology, 73, 559-572.
- Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. Review of Educational Research, 46, 707-441.
- Sherif, M., & Sherif, C. W. (1969). Social psychology. New York: Harper & Row.
- Stewart, A. J., & Winter, D. G. (1974). Self-destruction and social definition of women. Journal of Personality, 42, 238-259.
- Stryker, S. (1989). Ten critical choices for combining career and family. Vocational Educational Journal, 64, 28-30.
- Tangri, S. S. (1972). Determinants of occupational role innovation among college women. Journal of Social Issues, 28, 177-199.
- Taylor, R. (1985). The unfinished agenda: The role of vocational education in the high school. (Contract No. 300830016). Washington, DC: U.S. Department of Education.
- Thomas, R. M. (1985). Comparing theories of child development. Belmont, California: Wadsworth Publishing Company.

- Trigg, L. J., & Perlman, D. (1976). Social influence of women's pursuit of non-traditional career. Psychology of Women Quarterly, 1, 138-150.
- University of Northern Iowa Home Economics Education. (1980). Integration of combined wage earner/homemaker roles in secondary home economics programs. Des Moines, IA: Department of Public Instruction.
- U.S. Bureau of the Census (1980). A statistical portrait of women in the U.S. 1978. (Current Population Reports, Series P-23, No. 100). Washington, DC: U.S. Government Printing.
- Verstraeton, D. (1980). Level of realism in adolescent future time perspective. Human Development, 23, 177-191.
- Vocational Education Work and Family Institute. (1982). Balancing work and family: An educational resource for the business community. White Bear Lake, MN: Minnesota Curriculum Services Center.
- Vogel, S. R., Broverman, I. K., Clarkson, F. E., & Rosenkrants, P. S. (1970). Maternal employment and perception of sex roles among college students. Developmental Psychology, 3, 384-391.
- Vondracek, F. W., & Schulenberg, J. E. (1986). Career development in adolescence: Some conceptual and intervention issues. Vocational Guidance Quarterly, 34, 247-254.
- Waldman, E., Grossman, A. S., Hayghe, H., & Johnson, B. L. (1979). Working mothers in the 1970's: A look at the statistics. Monthly Labor Review, 102 (10), 39-49.
- Workman, B. (1989, November 19). Should students have jobs? The Des Moines Sunday Register, p. 1C.
- Worthen, B. R., & Sanders, J. R. (1987). Educational evaluation: Alternative approaches and practical guidelines. White Plains: Longman Inc.
- Wylie, R. C. (1979). The self-concept: Theory and research on selected topics (Vol. 2). Lincoln: University of Nebraska Press.

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APPENDIX A1:
WORK AND FAMILY KNOWLEDGE TEST

Part I

BALANCING WORK/FAMILY TEST

Directions: For each question, select the best answer. Using a #2 pencil, fill in the correct space on the answer sheet. Be sure to darken the space completely. If you erase, be sure that you erase completely. Your name is not required on either the inventories or the answer sheet. However, do fill in your ID number, sex, grade, and class in the answer sheet, and write your ID number on the first pages of the inventories, to enable us to match your pre-test response to that of post-test response. Individual students will not be known personally by the researcher. The data will be strictly confidential.

1. Which of the following best characterizes the most dramatic change in the composition of the work force during the last 30 years?
 - a. increase in number of men working
 - b. increase in number of women working
 - c. decrease in number of men working
 - d. decrease in number of women working
2. Which of the following types of occupations is projected to have the most growth through 1995?
 - a. heavy industry
 - b. service
 - c. technological
 - d. government
3. The fourth largest expense in most families with children under age 6 is
 - a. child care.
 - b. automobile.
 - c. house payment.
 - d. groceries.
4. One future effect of current work/family trends on lifestyles may be
 - a. fewer families with two earners.
 - b. fewer single-parent families.
 - c. more families needing child care.
 - d. more people getting married.

5. A person who receives a phone call from his/her child while at work may be performing what two roles together?
 - a. parent and employee
 - b. parent and citizen
 - c. parent and friend
 - d. parent and spouse
6. The stage of the life cycle when work/family responsibilities may be heaviest is
 - a. families with young children.
 - b. families with teenage children.
 - c. families with college-age children.
 - d. couples who are retiring.
7. Which of the following couple career combinations would BEST facilitate the parenting role?
 - a. interstate trucker/TV newscaster
 - b. dentist/high school teacher
 - c. professional athlete/actress
 - d. Bed and Breakfast owner/airline pilot
8. Barbara and Rick are both employed full-time. Barbara has to attend a breakfast meeting tomorrow. Rick is going to prepare breakfast for their young children. What factor associated with FAMILY most affects Barbara's work?
 - a. earning more money
 - b. working longer hours
 - c. sharing household responsibilities
 - d. finding quality child care
9. JoAnn is a supervisor for an insurance company. Her position places physical and emotional demands on her. She looks forward to the time each day when she can discuss the day's events with her children. The advantage of working and being part of a family for JoAnn is having
 - a. more money to spend on the family.
 - b. more help with household tasks.
 - c. someone to share successes and setbacks.
 - d. friendship at work.

10. One month ago, Rachel's employer relocated her and her family to a large city in another state. Her new position frequently requires her to work nights or weekends to meet deadlines. The family has not done anything together since the move. She uses her lunch time to exercise and eat. She reads or watches television in her spare time.

What life domain is the largest for Rachel?

- a. family
 - b. work/school
 - c. self
11. In order to balance her life, Rachel should spend MORE time with
- a. family.
 - b. work/school.
 - c. self.
12. The last step in effective time management is
- a. setting goals.
 - b. evaluating goals and activities.
 - c. analyzing current activities.
 - d. listing activities in order of priority.
13. Identifying priorities for activities is important because it
- a. helps individuals get all their activities done.
 - b. helps individuals get the most important tasks done.
 - c. identifies the easiest task to do first.
 - d. identifies the most pressing task to do first.
14. What is the relationship between values and decisions about family financial management?
- a. Values have no influence on decisions.
 - b. Values have little influence on decisions.
 - c. Values guide decisions.
 - d. Values dictate decisions.
15. What is an advantage of itemizing expenses as a method for establishing a budget?
- a. gives a precise accounting of expenses
 - b. requires less decision-making than using national norms
 - c. provides a quick and easy method
 - d. does not need to be recorded on a regular schedule

16. A financial management plan CANNOT help a family
 - a. anticipate expenses.
 - b. identify goals.
 - c. recognize necessary adjustments.
 - d. buy whatever they want.
17. Stress is caused by all of the following EXCEPT
 - a. negative attitudes.
 - b. uncertainty.
 - c. a sense of competency.
 - d. lack of personal time.
18. Which is a characteristic of stress?
 - a. Stress can be avoided by families.
 - b. People react in a similar manner to an event.
 - c. The reaction is physical and psychological.
 - d. Stress causes people to withdraw from action.
19. What is the best reason for doing leisure time activities with your family?
 - a. The family members are physically close.
 - b. It is more cost effective to do activities as a group.
 - c. Stress is relieved when families do things together.
 - d. A family's relationship can be enriched.
20. An individual who enjoys working because he/she is around other people is probably motivated by
 - a. economic reasons.
 - b. political reasons.
 - c. demographic reasons.
 - d. social reasons.
21. The expectations of a particular job including number of work hours, work schedule, physical and psychological conditions, travel, and relocation are defined as work
 - a. demands.
 - b. commitments.
 - c. influences.
 - d. development.

22. Martha comes in at 7:00 a.m. and works until 4:00 p.m. Julia arrives at 8:00 a.m. and works until 5:00 p.m. This is an example of
- a. flexible work schedules.
 - b. job sharing.
 - c. paid family leave.
 - d. employee assistance.
23. Mark and Julia are both working and have two pre-school children. The type of benefit probably most important to them at this stage of the family life cycle would be
- a. sick leave.
 - b. paid vacation.
 - c. savings and retirement.
 - d. child care options.
24. Employer supports and benefits indirectly contribute to a family's
- a. expenses.
 - b. income level.
 - c. responsibilities.
 - d. conflicts.
25. A benefit to individuals provided by Social Security is
- a. full income at retirement.
 - b. health insurance at retirement.
 - c. disability income.
 - d. protection against loss of job.
26. All these factors lead to work satisfaction except one, which one does not lead to work satisfaction?
- a. adequate pay
 - b. recognition
 - c. advancement
 - d. close supervision
27. Which of these variables is family related?
- a. friends
 - b. birth order
 - c. media
 - d. school

28. Gary meets the deadlines for his job. What quality important to work does Gary demonstrate?
- a. responsible, dependable, and reliable
 - b. ability to accept criticism
 - c. accurate and concerned about quality
 - d. poised and tactful
29. Which of the following is a skill the sender uses in effective communication?
- a. listening carefully
 - b. organizing thoughts
 - c. looking around
 - d. asking for repetition
30. Tracy was eager to do her job correctly. She met with her supervisor and a new task was outlined. She took notes on everything her supervisor said. Later that week when she met with her supervisor, she had arranged for a meeting on the wrong date with the wrong people. What SENDER skills did Travey's supervisor probably NOT use?
- a. Speaking clearly and looking at Tracy.
 - b. Using words Tracy understood and listening carefully.
 - c. Making sure the message was understood and asking for feedback.
 - d. Looking at Tracy and making sure the message was understood.
31. A constructive means of handling conflict is
- a. focusing on the issue.
 - b. mocking others.
 - c. proving who is right.
 - d. shouting at others.
32. Conflict resolution at the workplace is important because
- a. one individual can change the behavior of another.
 - b. it determines the only solution to a problem.
 - c. it promotes better understanding among fellow workers.
 - d. conflict is bad for working relationships.
33. Which of these best summarizes the importance of interpersonal relationships in the workplace?
- a. The ability to relate well is necessary to keep a job.
 - b. The emphasis should be placed on gaining power.
 - c. The relationships are unstructured.
 - d. Relationships are unimportant to accomplish work goals.

34. Taking responsibility for a task means
 - a. making it easier to do a task.
 - b. sharing a task with someone else.
 - c. assisting someone with a task.
 - d. being accountable for a task's completion.

35. What is the relationship between single-parent families and household and child care tasks?
 - a. Children do not have to adjust their roles.
 - b. There are fewer tasks so sharing is unnecessary.
 - c. Single-parents have the major responsibility for home and children.
 - d. Single-parent families do not have the same tasks to do as two-parent families.

APPENDIX A2:
FUTURE LIKELIHOOD INVENTORY

Part II.

FUTURE LIFE INVENTORY

Directions:

This part of the inventory contains a series of questions about your life in the future. There are no right or wrong answers. Determine from the scale shown below the response which best describes yourself in the future. Circle the number to the left of each statement that best indicates how you see yourself.

Extremely Unlikely	Unlikely	Undecided	Likely	Extremely Likely
1	2	3	4	5
1 2 3 4 5	1.	Be married only once		
1 2 3 4 5	2.	Be married more than once		
1 2 3 4 5	3.	Be divorced only once		
1 2 3 4 5	4.	Be divorced more than once		
1 2 3 4 5	5.	Remain unattached and unmarried		
1 2 3 4 5	6.	Have a roommate of the same sex		
1 2 3 4 5	7.	Have a roommate of the opposite sex		
1 2 3 4 5	8.	Live with someone of the opposite sex in an intimate relationship without being married		
1 2 3 4 5	9.	Live with someone of the same sex in an intimate relationship without being married		
1 2 3 4 5	10.	Be a parent		
1 2 3 4 5	11.	Be a stepparent		
1 2 3 4 5	12.	Be a grandparent		
1 2 3 4 5	13.	Be a single parent		
1 2 3 4 5	14.	Be an adoptive or foster parent		
1 2 3 4 5	15.	Be a widow or widower		

Extremely Unlikely					Unlikely	Undecided	Likely	Extremely Likely		
1					2	3	4	5		
1	2	3	4	5	16.	Plan your own work hours and schedule				
1	2	3	4	5	17.	Work without pay				
1	2	3	4	5	18.	Bring home a larger paycheck than your spouse				
1	2	3	4	5	19.	Work full time				
1	2	3	4	5	20.	Work part time				
1	2	3	4	5	21.	Work mainly with people				
1	2	3	4	5	22.	Be self-employed				
1	2	3	4	5	23.	Have education or training beyond a bachelor's degree				
1	2	3	4	5	24.	Do at least half of your work at home				
1	2	3	4	5	25.	Work in a large organization (over 500 people)				
1	2	3	4	5	26.	Are in your second or third career				
1	2	3	4	5	27.	Work in an office				
1	2	3	4	5	28.	Have changed jobs at least once				
1	2	3	4	5	29.	Earn more money than your parent(s) did at the same age				
1	2	3	4	5	30.	Work in industry				
1	2	3	4	5	31.	Work outdoors				
1	2	3	4	5	32.	Enjoy your work more than your parent(s) did at the same age				
1	2	3	4	5	33.	Travel in your work				
1	2	3	4	5	34.	Are married to working spouse				
1	2	3	4	5	35.	Work full time while you have infants or small children				

Extremely Unlikely					Unlikely	Undecided	Likely	Extremely Likely		
1					2	3	4	5		
1	2	3	4	5	36.	Work primarily with numbers or information				
1	2	3	4	5	37.	Work primarily with "things" or with your hands				
1	2	3	4	5	38.	Use robots in your work				
1	2	3	4	5	39.	Use computers in your work				
1	2	3	4	5	40.	Are married to a nonemployed housewife or househusband				

Part III - BACKGROUND INFORMATION

Directions:

This part of the inventory contains questions about you, your family, and your education and career goals. Please circle letter of the answer which best describes you.

Questions 1 - 9:

Select the answer that best describes you and your situation. Circle A if the statement is not at all true, B if it is somewhat true, C if it is very true, and D if it does not apply to you.

- A B C D 1. My mother keeps close track of how well I do in school.
- A B C D 2. My father keeps close track of how well I do in school.
- A B C D 3. My parents know where I am and what I am doing.
- A B C D 4. My father has influenced my plans after high school.
- A B C D 5. My mother has influenced my plans after high school.
- A B C D 6. Other relatives have influenced my plans after high school.
- A B C D 7. Teachers have influenced my plans after high school.
- A B C D 8. My guidance counselor has influenced my plans after high school.
- A B C D 9. My friends have influenced my plans after high school.

Questions 10 - 15:

What do the following people aspire for you to do after high school? Circle the letter of the answer which best describes what each thinks.

- | | <u>A</u> | <u>B</u> | <u>C</u> | <u>D</u> | <u>E</u> |
|-----------------------|------------------|-------------------------|------------------------------|---------------------------|---------------|
| | Go to
college | Enter a
trade school | Enter
military
service | Get a
full time
job | Don't
know |
| | _____ | _____ | _____ | _____ | _____ |
| A B C D 10. Father | | | | | |
| A B C D 11. Mother | | | | | |

- A B C D 12. Guidance counselor
- A B C D 13. Teachers
- A B C D 14. Friends
- A B C D 15. Myself
16. Which of the following income groups comes closest to the amount of money your family makes in a year? (Select one)
- A. Less than \$12,000
 - B. \$12,000 to \$19,999
 - C. \$20,000 to \$29,999
 - D. \$30,000 to \$39,999
 - E. \$40,000 to \$49,999
17. Do you currently work for pay, not counting work around the house?
- A. Yes
 - B. No
18. When was the most recent time you worked for pay, not counting work around the house?
- A. Never worked for pay
 - B. Last week
 - C. Last month
 - D. Last summer
 - E. Earlier than last summer
19. Which of the categories below describes the job currently or most recently held by your father (stepfather or male guardian)?
- A. Professional such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher.
 - B. Professional such as clergyman, dentist, physician, lawyer, scientist, college teacher, or school teacher.
 - C. Farmer, farm manager.
 - D. Manager, administrator, such as sales manager, office manager, school administrator, restaurant manager, business manager, government official.
 - E. Others: such as technical craftsman, clerical, military service, protective, proprietor or business owner, homemaker or housewife only.

20. What is the highest level of education your father (stepfather or male guardian) has completed?
- A. Less than high school
 - B. High school
 - C. Vocational, trade or business school
 - D. Some college
 - E. Bachelors degree/above
21. Which of the categories below describes the job currently or most recently held by your mother (stepmother or female guardian)?
- A. Professional such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher.
 - B. Professional such as clergyman, dentist, physician, lawyer, scientist, college teacher, or school teacher.
 - C. Farmer, farm manager.
 - D. Manager, administrator, such as sales manager, office manager, school administrator, restaurant manager, business manager, government official.
 - E. Others: such as technical craftsman, clerical, military service, protective, proprietor or business owner, homemaker or housewife only.
22. What was the highest level of education your mother (stepmother or female guardian) completed?
- A. Less than high school
 - B. High school diploma
 - C. Vocational, trade or business school
 - D. Some college
 - E. Bachelors degree/above
23. I am in _____ grade:
- A. 9
 - B. 10
 - C. 11
 - D. 12
24. I am a:
- A. Female
 - B. Male

APPENDIX A3:
SELF DESCRIPTION QUESTIONNAIRE III (SDQIII)

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117-120, Appendix A3

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APPENDIX B:
APPROVAL OF HUMAN SUBJECTS

INFORMATION ON THE USE OF HUMAN SUBJECTS IN RESEARCH
IOWA STATE UNIVERSITY

(Please follow the accompanying instructions for completing this form.)

1. Title of project (please type): ¹²² Work and Family: Effects of Instruction on
Adolescents' Knowledge and Future Time Perspectives

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are properly protected. Additions to or changes in procedures affecting the subjects after the project has been approved will be submitted to the committee for review.

Mopelola O. Adegoke 12-16-88 *Mopelola Adegoke*
Typed Name of Principal Investigator Date Signature of Principal Investigator

219 MacKay Hall 294-6444
Campus Address Campus Telephone

3. Signatures of others (if any) Date Relationship to Principal Investigator

Patricia M. Keith 1/3/89 major professor

4. ATTACH an additional page(s) (A) describing your proposed research and (B) the subjects to be used, (C) indicating any risks or discomforts to the subjects, and (D) covering any topics checked below. CHECK all boxes applicable.

- ☐ Medical clearance necessary before subjects can participate
☐ Samples (blood, tissue, etc.) from subjects
☐ Administration of substances (foods, drugs, etc.) to subjects
☐ Physical exercise or conditioning for subjects
☐ Deception of subjects
☐ Subjects under 14 years of age and/or ☒ Subjects 14-17 years of age
☐ Subjects in institutions
☐ Research must be approved by another institution or agency



5. ATTACH an example of the material to be used to obtain informed consent and CHECK which type will be used.

- ☐ Signed informed consent will be obtained.
☒ Modified informed consent will be obtained.

6. Anticipated date on which subjects will be first contacted: Month Day Year

2 1 89

Anticipated date for last contact with subjects:

5 15 89

7. If Applicable: Anticipated date on which audio or visual tapes will be erased and/or identifiers will be removed from completed survey instruments:

Month Day Year

8. Signature of Head or Chairperson Date Department or Administrative Unit

Patricia M. Keith 1/3/89 Family & Consumer Sciences Education

9. Decision of the University Committee on the Use of Human Subjects in Research:

- ☐ Project Approved ☐ Project not approved ☐ No action required

Patricia M. Keith
Name of Committee Chairperson Date Signature of Committee Chairperson

APPENDIX. C:
CORRESPONDENCE

Iowa State University of Science and Technology

Ames, Iowa 50011-1120



December 28, 1988

Department of Family
& Consumer Sciences Education
219 MacKay Hall
Telephone: (515) 294-6444

Dear Teacher:

As you know, the Department of Family and Consumer Sciences Education at Iowa State University has recently developed a curriculum guide, Balancing Work and Family Life. Last summer at the Iowa Vocational Home Economics Teachers Conference in Iowa City, you indicated that you would be willing to participate in field testing the curriculum next spring semester. One of my doctoral students, Lola Adegoke, and I are working on the field testing.

We would like to use both a treatment and a control group. If you decide to participate, juniors and seniors in your family living class(es) would respond to the knowledge test that goes with the curriculum guide, a future life inventory to determine what they believe their future work and family life will be like, and a demographic questionnaire. In addition, you would need to be willing to test the lessons within the curriculum guide with your family living class(es).

The curriculum consists of 37 lesson plans and it includes work sheets, transparency masters, recommended audio visual materials, resource materials for both students and teachers, and a test item bank. A complementary copy of this curriculum may have already reached you through Gladys Grabe from the Iowa Department of Education. If you have not received a copy, let me know and I will send one to you.

Please indicate your willingness to participate in the field test on the enclosed form and return it to me by January 13, 1989.

Sincerely,

Jerelyn B. Schultz, Ph.D.
Professor & Chair
Family & Consumer Sciences Education
JBS:jj

Enclosures

Part I

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_____ We will participate. Please complete the entire form.

_____ We will not participate.

Comments:

signature

school

Please return by January 13, 1989.
.....

Part II

Directions:

Please complete the following information. Where numbers and date are requested, supply your best estimates at this time. This data will be used to determine if your school and the treatment school are comparable.

Home Economics

Course Title _____ Days class meets per week _____

Check one: _____ Required _____ Elective Weeks class meets per year _____

Text, if any _____

Publisher and Date _____

Teacher's name _____

Study Data

No. of copies of questionnaire needed _____

No. of answer sheets needed _____

Person to send material to: _____

Phone _____

Iowa State University *of Science and Technology*

Ames, Iowa 50011-1120



Department of Family
& Consumer Sciences Education
219 MacKay Hall
Telephone: (515) 294-6444

January 30, 1989

Dear Teacher:

We appreciate your willingness to field test the Balancing Work and Family Curriculum. As a part of the field test, we are asking that you administer the two instruments to a similar home economics class not participating in the curriculum. Please ask students to complete the instruments about the same time you administer them to the students who participate in the curriculum as a pretest and post test.

Enclosed you will find copies of the test and attitude inventory to administer as a pretest prior to beginning the curriculum. We've included the same number of copies for you to administer to a similar home economics class. Let us know if you need additional copies by calling me at (515) 294-6444. We need to have students place an ID number on the machine-scored answer sheet and on the future life inventory. Please do not have them put their names on either. Give each student an ID number; you can use the numbers for the students in your grade book, or their social security numbers. The pretest and the future life inventory can be administered during separate class periods. Please mail the students' answer sheets and future life inventories to us in the stamped self-addressed envelope.

Please let us know when you plan to complete the curriculum. We will send tests and instruments to you for the post test. Once again, thank you for your willingness to help us find out more about what teenagers hope and think about their future work and family lives.

Sincerely,

Jerelyn Schultz
Major Professor

Mopelola Adegoke
Graduate Assistant

APPENDIX D: FUTURE LIKELIHOOD FACTORS AND ABBREVIATIONS

WKCHAR	Workplace characteristics
BENWRK	Benefit of work
FLEXWRK	Flexible work schedule
MASTATUS	Marital status
PASTATUS	Parental status
COHAB	Cohabitation

APPENDIX E: GUIDE TO ABBREVIATIONS

PSTSCORE	Post score
PSTECWK	Post technological workplace
PSTBFWK	Post benefit of work
PSTFLWK	Post flexible work schedule
PSTMASTA	Post marital status
PSTPASTA	Post parental status
GENDER	Gender
PINFLUEN	Parental influence on plans
INFLOTHR	Influence of others on plans
PASPIRAT	Parental aspirations
OASPIRAT	Others' aspirations
PSTCOHAB	Post cohabitation
SASPIRAT	Self aspirations
SESTATUS	Socio-economic status
CWSTATUS	Current work status
GROUP	Group
PROBSOL	Problem solving
PHYAPPE	Physical appearance
SAMESTX	Relationship with same sex
OPPSEX	Relationship with opposite sex
PARENT	Relationship with parents
HONESTY	Honesty
EMOTSTB	Emotional stability
GSELFCO	General self-concept

APPENDIX F:

SUMMARY MEANS, STANDARD DEVIATION, AND VARIANCE OF VARIABLES

<u>Variable</u>	<u>Means</u>	<u>Standard Deviation</u>	<u>Variance</u>
PSTSCORE	22.54	5.90	34.84
PSTECWK	2.76	.50	.25
PSTBFWK	4.16	.47	.22
PSTFLWK	3.08	.68	.46
PSTMASTA	2.02	.74	.55
PSTPASTA	4.15	.77	.59
GENDER	1.93	.26	.07
PINFLUEN	1.90	.64	.45
INFLOTHR	1.01	.66	.44
PASPIRAT	2.31	1.01	1.02
OASPIRAT	2.05	1.10	1.22
PSTCOHAB	3.30	.92	.84
SASPIRAT	2.22	1.19	1.42
SESTATUS	3.47	.62	.39
CWSTATUS	1.22	.51	.26
PROBSOL	3.16	.59	.34
PHYAPPE	2.81	.75	.56
SAMESEX	3.81	.64	.41
OPPSEX	3.38	.61	.37
PARENT	3.21	1.00	1.00
HONESTY	3.74	.42	.17
EMOTSTB	3.09	.71	.51
GSELFCO	3.55	.82	.66

APPENDIX G:
OCCUPATION CLASSIFICATIONS¹

CLASS	OCCUPATION
1	Accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician.
2	Clergyman, dentist, physician, lawyer, scientist, college/school teacher.
3	Farmer, farm manager.
4	Manager, administrator: sales manager, office manager, restaurant manager, business manager, government official, school administrator.
5	Technicians, clerical, military service, protectives, proprietor or business owner, homemaker/housewife.

¹Adapted from N. Lewin-Epstein, Youth employment during high school. Washington, D.C.: National Center for Education Statistics, 1981.