Consumer education knowledge, attitude, and experiences of selected groups in Trinidad and Tobago: basis for curriculum development

Theodora Eleanora Alexander

Iowa State University

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CONSUMER EDUCATION KNOWLEDGE, ATTITUDE, AND EXPERIENCES OF SELECTED GROUPS IN TRINIDAD AND TOBAGO: BASIS FOR CURRICULUM DEVELOPMENT

Iowa State University

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Consumer education knowledge, attitude, and experiences
of selected groups in Trinidad and Tobago:
Basis for curriculum development

by

Theodora Eleanora Alexander

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

Major: Home Economics Education

Signature was redacted for privacy.

In Charge of Major Work

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For the Major Department

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For the Graduate College

Iowa State University
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1986
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INTRODUCTION

Consumer education for citizens of Trinidad and Tobago is a relatively new educational focus. Recent trends in the country's economy have underscored the need for this current emphasis. Because intelligent consumption behaviors appear to be one basis for improving the quality of life for individuals and families, a well-conceived consumer education program might prove most effective in improving consumers' competencies.

If there is general agreement that improvement of personal and family life is intertwined with efficient consumption, then it is difficult to conceive of the role of home economics without focusing on the area of consumer education. With its focus on helping individuals and families to improve their quality of life, home economics can contribute immensely to the improvement of consumer education competencies of citizens of Trinidad and Tobago, and eventually to the economic well-being of the nation.

Educational administrators in Trinidad and Tobago are continuously being challenged to make important decisions when planning new programs or expanding the scope of existing programs. They are frequently confronted with the lack of valuable empirical data for effective decision making. The availability of pertinent research-based data might facilitate the effectiveness of the decision-making process in their efforts to direct the expansion of the educational system. A variety of studies in the area of consumer education can be found in the literature. These pertain to North American countries. No such studies exist for Trinidad and Tobago.

Before the educational system can meet the challenge of the nation for education in new areas, it seems necessary that certain assessments be
made of the current competencies of the clientele it intends to serve and
the expertise of the personnel who will be required to carry out the
program. Educational planners in Trinidad and Tobago are somewhat
handicapped by the unavailability of such valuable information. This
current study, the first of its kind on the topic for the country, aims to
provide such data pertinent to consumer education. Information on
personal and demographic factors which might have some relationship to
subjects' consumer education competencies might also assist educators in
the development of effective programs.

Statement of the Problem

The research problem was to measure the consumer education
competencies of three population groups in Trinidad and Tobago—secondary
students of home economics, their parents and home economics teachers—and
to examine what implications the findings might have for curriculum
development. More specifically, the investigation was designed (a) to
examine differences in consumer education knowledge, attitudes, and
experiences of high school students, home economics teachers, and
students' parents; (b) to examine relationships among consumer education
knowledge, attitudes, and experiences of students, parents, and teachers;
(c) to examine what demographic variables appear to have possible
relationships to these consumer education competencies of the three groups
of subjects; and (d) to make recommendations for consumer education
programs in Trinidad and Tobago.

In an effort to collect data for the present study, it was necessary
to obtain approval from education administration personnel in the country
concerned. Approval was sought and obtained from the Ministry of Education in Trinidad and Tobago (see Appendix D). Approval for the use of human subjects in the research was obtained from the Human Subjects Approval Committee at Iowa State University (see Appendix E). The Ministry of Education provided lists of names and addresses of secondary schools, schools' supervisors, and principals.

Explanation of Dissertation Format

The dissertation format used in the presentation of this research is approved by the Graduate Faculty at Iowa State University. This format presents the research in manuscript form. The manuscripts are suitable for publication in professional journals.

The dissertation begins with an introduction and review of the literature which provides background for the entire research project. The body of the dissertation includes two sections which address two distinct components of the research. The first section is a manuscript describing consumer education competencies of selected audiences in Trinidad and Tobago. This manuscript is written for a professional journal for home economics researchers. The second manuscript provides information pertaining to relationships between cognitive and affective responses to consumer education content. This manuscript is written for a professional journal for consumer education researchers.

The authorship for Section I is shared with Dr. Ruth Hughes, major professor for the dissertation. The authorship for Section II is held by the doctoral candidate.
The final chapter summarizes the total research, presents overall findings, conclusion, and recommendations. The appendices include the research instrument, answer key, coding plan, correspondence, and data compilations.
LITERATURE REVIEW

Consumer education research has been a popular focus for education researchers in North America. This has not been the case for several other countries. Because this area of education research has not been previously explored for Trinidad and Tobago, no literature on the topic specific to the country was available.

Because the present study relates to the consumer education competencies of students, parents, and teachers, a review of the consumer socialization literature was required to provide background information on how adolescents learn the consumer role, and the relationship of parents and teachers in adolescents' acquisition of such competencies. It was also necessary to provide adequate background information pertinent to (a) the effectiveness of consumer education in improving consumers' competencies, (b) specific factors (variables) which seem to influence the consumer competencies of certain audiences, and (c) appropriate procedures for conducting research involving students, parents, and teachers as subjects in the same study.

This review of literature, therefore, focuses on the following areas:

1. Adolescent consumer socialization.
2. General research incorporating students, parents, and teachers.
3. Research specific to consumer education knowledge, attitude, and experiences of students, parents, or teachers.
4. Research pertinent to variables influencing consumer education knowledge, attitudes, or experiences of students, parents, and teachers.
Adolescent Consumer Socialization

Socialization perspectives

The term "socialization" is usually broadly defined to refer to the processes by which individuals learn to participate effectively in the social environment (Ward, 1974). Socialization makes the general assumption that in order to understand human behavior, the social origins of behavior and the processes by which such behavior is learned and maintained must be specified (McLeod & O'Keefe, 1972). Socialization research, therefore, focuses on studying the development of learning properties (cognitions and behaviors) necessary for the performance of a given social role (Churchill & Moschis, 1979). Typical approaches to the study of socialization have included two models of human learning, namely, the social learning model and the cognitive development model.

Studies utilizing the social learning approach usually assume a sociological perspective whereby socialization is viewed as a process of interaction with various agents or sources of influence in a variety of social settings. The sources of influence, commonly identified as "socialization agents" or "significant others," might be either another person(s) or an organization directly involved in socialization because of frequency of contact, primacy, or power over the individual (Brim, 1956).

In many societies, the immediate family is the primary group that is entrusted with the major responsibility for socializing the young. The family is believed to be the most influential group in shaping the ideas, beliefs, and attitudes which the maturing individual carries into adult life. Other persons, groups, or outside agencies including teachers,
peers, and the mass media also play some part in the socialization process. Parents, friends, mass media, and teachers, therefore, have been identified as typical socialization agents. Learning is assumed to take place during the adolescent's interaction with these socialization agents in a social environment such as home, school, or community group.

The cognitive development model, on the other hand, assumes a psychological perspective that views socialization in terms of specific cognitive structures or learning processes involved. Learning processes are defined as the various ways by which learners acquire specific values and behaviors from socialization agents while interacting with them (Moschis & Moore, 1978). These learning processes have been categorized as reinforcement, modeling, and social interaction.

Reinforcement may be either positive or negative, in the form of either reward or punishment mechanisms. The individual learns to repeat those behaviors that have been rewarded, and avoid repeating those behaviors which resulted in punishment or adverse consequences (McLeod & O'Keefe, 1972). Modeling, also known as observational learning, involves a conscious attempt by the learner to emulate the behavior of the socialization agent. Learning, in this instance, is assumed to occur through observation and imitation of the socialization agent's behavior. Social interaction, on the other hand, is less specific as to the type of learning involved. It may be a combination of reinforcement and modeling, and may include both cognitive and overt communication between the learner and the socialization agent (Moschis, Moore, & Smith, 1984). According to cognitive development theory, therefore, learning is a
cognitive-psychological process of adjustment to one's environment (Moschis & Moore, 1979) with emphasis on the interaction of personal and environmental factors. Environmental factors include such social structural variables as family size, sex, socioeconomic status, birth order, and age or life-cycle stage, all of which can have an impact on the individual's learning properties (McLeod & O'Keefe, 1972).

The term "consumer socialization" refers specifically to the processes by which young people acquire consumer-related knowledge, skills, and attitudes relevant to their functioning as consumers in the marketplace (Ward, 1974). Various authors have alluded to the increasing interest in consumer socialization studies by different groups of people including consumer researchers and educators, students of socialization and consumer behavior, and corporate and public-policy makers (Moore & Moschis, 1978; Moschis, 1976/1977; Moschis & Churchill, 1978; Ward, 1974). Ward (1974) contended that some patterns of adult consumer behavior were influenced by childhood and adolescent experiences, and a study of such experiences should be helpful in promoting a better understanding of not only young people's consumer behavior, but also the development of their adult behavioral patterns. General socialization theories, therefore, have been adopted by consumer researchers to the specific area of consumer socialization research.

Consumer socialization researchers have used the social learning approach and the cognitive development approach as a vehicle for studying how individuals acquire their consumption-related knowledge, skills, and attitudes. According to the social learning approach, adolescent consumer
learning is a social process in which cultural norms, motivations, attitudes, and referent others are integral components (Moore & Stephens, 1975). Through interaction with socialization agents (typically parents, peers, mass media, and teachers) in a social environment, adolescents tend to acquire the knowledge, skills, values, attitudes, motivations, and behaviors necessary to function as consumers.

The cognitive development approach, on the other hand, suggests that adolescent consumer socialization is a function of cognitive structures which the adolescent can use in perceiving and dealing with the environment during the life cycle stage known as "adolescence." This view holds that different clusters of variables, including maturational factors such as age, tend to dominate each stage of the individual's developmental process, and that cognitive and affective changes occur at different stages in the life cycle to accommodate different levels of developmental tasks. Consumer socialization studies, for example, have used the cognitive development approach to study certain aspects of decision making among young children and teenagers (Moschis & Churchill, 1979; Ward, Wackman, & Wartella, 1977), as well as the impact of family communication on adolescent consumer learning (Moschis, Moore, & Smith, 1984).

Some researchers have found that various aspects of consumer behavior were not amenable to a specific theoretical perspective, and have adopted a multitheoretical perspective incorporating both social learning and cognitive development approaches (Churchill & Moschis, 1979; Moschis & Churchill, 1978; Moschis & Moore, 1979; Robertson & Feldman, 1976). This combination perspective holds that adolescent consumer learning is both a
social process and a psychological process in which cognitive learning structures and interaction with significant others are vital components.

Relationship of parents and teachers to adolescents' consumer socialization

Adolescence is believed to be a crucial stage in the life cycle for socialization in general (Campbell, 1969), and for consumer socialization in particular (Moore & Stephens, 1975; Moschis, 1976/1977; Ward, 1974). Research suggests that a great deal of consumer behavior during adulthood is learned during the adolescent years (Moschis, 1976/1977; Olshavsky & Granbois, 1979; Ward, 1974). Whereas parents, peers, mass media, and teachers have been identified in the literature as important socialization agents in general (Moschis, 1976/1977; Thorton & Nardi, 1975), parents and teachers are considered significant determinants of consumer learning in particular (Reisman & Roseborough, 1955).

Within the informal environment of the family, parents perform an important function in influencing (directly or indirectly) adolescents' learning of consumer competencies. Parental influence on adolescent consumer socialization might occur through such channels as (a) allowing adolescents to observe and imitate parental consumer behaviors, (b) parents communicating overtly with their adolescent children about consumption, and (c) parents providing their adolescents with opportunities for consumption, perhaps under parental guidance (Ward et al., 1977). Parents also have certain characteristics which affect the nature of their influence on adolescent consumer learning. They may be a source of different kinds of power (expert, referent, or reward power) as
well as a vital link in intrafamilial communications. The basis for reward power is the ability of the parent to reward the learner. Reward, for example, might take the form of parental affection, praise, or approval, thus reinforcing the adolescent's positive behavior. Referent power, on the other hand, is based on ways in which the adolescent identifies with his/her parents (Assael, 1981).

Early sociologists suggested that young people learned the "rational" or "goal-oriented" aspects of consumption, including basic consumer needs, from their parents (Reisman & Roseborough, 1955; Parsons, Bales, & Shils, 1953). Later data on consumer socialization appeared to support this view (Moore & Stephens, 1975; Moschis & Churchill, 1978; Ward & Wackman, 1973; Ward et al., 1977). Research by Ward and Wackman (1973), for example, showed that parents' main goals for educating their children as consumers included teaching their children about price-quality relationships. A later study revealed that such goals expanded to include educating their children in the use of money, as well as teaching them how to shop for quality products (Ward et al., 1977).

Among the very early studies on education of children in the use of money was a study conducted by Chinniah (1962) to identify what parents felt their children should learn about managing money, and how these skills should be taught. The data indicated that mothers were highly agreeable that children should have money-management experience and should develop an awareness of the value of money. As parents, these mothers were in favor of children receiving a regular allowance before they were 10 years of age, but that they should be encouraged to plan the spending
of such allowance. In providing children with this practical experience, mothers in the sample indicated the need for parental interaction. They were strongly in favor of the notion that parents and children should agree on how the allowance should be spent, and supported children's participation in family financial decisions. Later research showed that frequency of communication between adolescents and their parents about consumption matters was a fairly good predictor of adolescents' consumer knowledge in relation to prices of selected products (Moore & Stephens, 1975), as well as a strong predictor of what was considered "socially desirable" consumer behaviors (Moschis, 1976/1977; Moschis & Churchill, 1978).

Through subtle and overt interaction with parents, adolescents learn the norms and values of the family and develop consumption patterns and preferences accordingly. The family context of interpersonal communication, however, is believed to have the greatest influence on adolescent consumer socialization (Moschis, 1985). As a primary informal reference group, therefore, parents serve as a reference point for adolescents in the development of their consumption-related knowledge, attitudes, and behaviors.

Teachers are also among the several socialization agents identified as important sources of adolescent consumer learning. They function within the formal organization of the school, which, as a social institution, is believed to reflect societal goals and needs (Brim, 1966). Because the school is a social institution, it usually assumes responsibility for formal education, including preparation of young people
for their consumer role as adults in society. Toward this end, there is
general availability of consumer education courses in school curricula.
Teachers of such courses are the channels through which adolescents may
attain the necessary skills, attitudes, and knowledge bases to function
effectively as consumers in the marketplace.

Apart from planning the subject-matter content, teachers plan and
provide learning opportunities for students, and students' learning may be
facilitated through a variety of learning mechanisms. Such learning
mechanisms include reinforcement (as in assigning letter grades),
interaction (through the process of classroom teaching, discussions, and
readings), and modeling (i.e., unconscious identification of students with
their teachers' behavior) (Campbell, 1969). According to Reisman and
Roseborough (1955), schools provide training in the "adaptive" functions
of consumption, that is, those functions of consumption in the broader
context of societal roles. Teachers have a great impact as role models
and sources of influence and power in adolescent consumer learning. Thus,
whether through subtle interpersonal processes, or purposive and
systematic consumer training within families or schools, both parents and
teachers are instrumental in teaching general as well as specific
orientations regarding consumption to adolescents.

Research pertaining to adolescent consumer socialization

Research pertaining to adolescent consumer socialization has dealt
primarily with the relative influence of three socialization agents
(family, peers, mass media) on adolescents' learning of consumer skills.
Most studies have focused on parents' influence in family communication about consumption. Studies incorporating teachers or pertaining specifically to the influence of teachers on adolescents' learning of consumption-related competencies, however, appear to be quite sparse. The influence of the school as a socialization agent has been studied in relation to the number of consumer-related courses taken by adolescents in school, but such studies are extremely few. This section provides an overview of eight studies conducted over the past 10 years in the area of adolescent consumer socialization with relevance to parents and teachers as socialization agents, and the impact of demographic variables on adolescents' consumer learning.

Among the early consumer socialization studies during the period under review was a study designed to examine the influence of four socialization agents (television, family, peers, and school) on adolescents' acquisition of certain consumer skills. The skills examined were considered as contributing to individuals' consumer competency and proficiency in the marketplace. Moschis and Moore (1978) administered a questionnaire to 607 adolescents enrolled in 6th through 12th grade classes in two states, Kentucky and North Carolina. The study examined adolescents' acquisition of knowledge in the areas of price accuracy, brand knowledge, legal knowledge, and consumer role conceptions.

Price accuracy referred to the adolescent's ability to price selected products and services. Brand knowledge referred to the extent to which adolescents correctly identified product categories for specific brands. Legal knowledge referred to individuals' knowledge of consumer legal
rights in the marketplace and sources of redress, and consumer role conception referred to individuals' knowledge and perceptions of the consumer's role in terms of obligations, functions, position, and rights involved. The influence of the various socialization agents was operationalized as (a) amount of television viewing, (b) communication with parents about consumption, (c) communication with peers about consumption, and (d) interaction with school about consumption matters. This latter was further defined in terms of number of consumer-related courses completed. Adolescents' age, sex, and socioeconomic status were the demographic variables examined.

The findings of the study indicated that older adolescents (9th and 12th grade students) scored significantly higher on the measures of brand knowledge, legal knowledge, price accuracy, and consumer role conceptions than their younger counterparts (6th through 8th grade students). Adolescent males were found to possess greater ability to accurately price selected products and services in the marketplace, and also had a higher level of legal knowledge than their female counterparts. Female adolescents, on the other hand, appeared to communicate with their parents about consumption matters more frequently than their male counterparts. Gender and age, therefore, were two variables which appeared to have some influence on adolescents' acquisition of many of the specific skills measured.

A significant positive relationship was also found to exist between adolescents' socioeconomic status and all four consumer skills measured. Adolescents in high socioeconomic groups seemed more aware of available
brands in the marketplace, were better able to price products and services, had greater knowledge of consumer legal rights and sources of redress, and had more socially desirable consumer role expectations than those in lower socioeconomic groups.

The data also indicated that peers were the most significant source of acquisition of the four consumer-related skills for adolescents. Interaction with peers apparently led to adolescents' increased awareness about brands of products and the cost of goods and services in the marketplace, as well as to greater legal knowledge. The researchers suggested that, on the basis of the findings, demographic and social characteristics might be significant factors directly affecting adolescents' acquisition of certain consumer skills.

A large-scale survey of adolescents attending 13 secondary schools in seven geographic areas in Wisconsin was conducted to examine adolescents' acquisition of several consumption-related skills as a function of variables derived from models of socialization theory (Churchill & Moschis, 1979; Moschis, 1976/1977; Moschis & Churchill, 1978). The survey examined consumer learning from the perspective of acquiring the consumer role. Consumer learning was viewed as a social process explained by two types of variables—intervening socialization processes and environmental factors.

Some schools in the sample were selected on the basis of convenience, and others were randomly selected. The sample for the survey represented a cross-section of population-density regions and socioeconomic backgrounds. Data were collected by questionnaires from 1,477
adolescents, 1,216 of whom provided usable data. Subsamples were then
drawn from the usable number of questionnaires in each school, with
attempts made to include representation of adolescents by gender, age
group, geographical location, and social class in the final sample
(N=806). In order to examine age differences, the final sample was
subdivided into 441 younger adolescents (under 15 years) and 365 older
adolescents (15 years and over).

Reports of the study appeared in the literature in three separate
articles by Moschis (1976/1977), Moschis and Churchill (1978), and
Churchill and Moschis (1979). Dependent variables reported in the study
by Moschis (1976/1977) included (a) responses to marketing stimuli, (b)
discriminatory skills, (c) consumer affairs knowledge, (d)
predisposition/values, and (e) consumer activism. The goal was to measure
four aspects of consumer learning (i.e., attitude, skills, knowledge, and
values). In addition to consumer affairs knowledge and consumer activism,
Moschis and Churchill (1978) reported on consumer finance management,
attitudes toward prices, materialistic values, economic motivations for
consumption, and social motivations for consumption. Churchill and
Moschis (1979), however, concentrated only on economic motivations for
consumption, social motivations for consumption, and materialistic values
as dependent variables.

Four sources of socialization presumed to affect adolescents'
acquisition of consumer competencies were studied. Also included were
demographic factors considered to influence the acquisition of such
competencies. Independent variables included in the overall survey,
therefore, were the mass media, the family, the school, and peers. Gender, social class, age, and birth order were the demographic factors. These latter were identified as "antecedent variables" according to the conceptual theoretical framework upon which the study was based.

The researchers arrived at several conclusions about antecedent-consequent relationships on the basis of correlational data analyses. Findings in all three reports were quite similar. Results indicated that gender, age, and social class of adolescents were strong predictors of their learning of several of the consumer skills measured. Respondent's gender was a strong predictor of responses to marketing stimuli, adolescents' discriminatory skills, consumer affairs knowledge, consumer activism, and values. Males appeared to possess more favorable attitude toward stores (Moschis, 1976/1977), had greater consumer affairs knowledge (Moschis, 1976/1977; Moschis & Churchill, 1978), more materialistic values, and stronger social motivations for consumption (Churchill & Moschis, 1979; Moschis, 1976/1977; Moschis & Churchill, 1978) than adolescent females. It appeared that the expressive elements of consumption were more relevant to males than to females. Female adolescents, on the other hand, had more favorable attitudes toward advertising, sought more consumer information, and appeared more likely to perform socially desirable behaviors (consumer activism) than their male counterparts (Moschis, 1976/1977).

Age appeared to be the strongest predictor of adolescents' consumer affairs knowledge (Moschis, 1976/1977, Moschis & Churchill, 1978); a strong predictor of adolescents' development of attitudes toward prices,
advertising, and stores (responses to marketing stimuli); and a fairly good predictor of consumer activism and consumer finance management (Moschis, 1976/1977; Moschis & Churchill, 1978). The development of such consumer-related skills appeared, generally, to occur concomitantly with age. Older adolescents were more likely to perform socially desirable consumer behaviors, and were better able to manage consumer finances than their younger counterparts. Younger adolescents, however, were more likely to hold more favorable attitudes toward prices than their older counterparts. Attitude toward prices was operationalized as agreement/disagreement to cognitive and affective statements regarding prices as indicators of product quality and performance. Moschis (1976/1977) also reported that consumer socialization appeared to continue throughout the late adolescent years.

Data from the study also indicated that adolescents' socioeconomic background was positively related to their acquisition of certain consumer skills. Adolescents from families of high socioeconomic status were more likely to have greater consumer affairs knowledge (Moschis, 1976/1977), greater economic motivations for consumption (Churchill & Moschis, 1979; Moschis & Churchill, 1978), and more ability to manage consumer finances (Moschis, 1976/1977; Moschis & Churchill, 1978) than their counterparts from families of low socioeconomic status. Socioeconomic status was in no way related to family communication about consumption matters (Churchill & Moschis, 1979).

With regard to the relative influence of the socialization agents on adolescents' development of consumer-related competencies, the data
revealed that all four socialization agents (i.e., mass media, family, school, and peers) were important sources of adolescent consumer socialization, but with varying degrees of influence. Mass media appeared to be the most important agent of socialization for the specific skills evaluated in the study, and peers were of secondary importance. The family (i.e., parents) was found to have some importance, and the school least importance. In this survey, the number of consumer-related courses taken in school was not significantly correlated with the consumer skills measured (Moschis, 1976/1977). Overt communication about consumption between parents and adolescents, however, correlated positively with adolescents' economic motivations for consumption (Churchill & Moschis, 1979; Moschis, 1976/1977), as well as frequency with which adolescents performed socially desirable consumer behaviors (Moschis, 1976/1977).

Churchill and Moschis (1979) found that adolescents' communication with parents about consumption matters declined with age. In addition to age, birth order appeared to be an influential factor. Adolescents who were first-borns were reported to communicate with their parents about consumption matters more frequently than later-borns. The relationship, however, was not statistically significant. Finally, the school was found to be a good predictor of adolescents' favorability of attitudes toward advertising (Moschis, 1976/1977; Moschis & Churchill, 1978). Even though the researchers were very cautious in reporting the findings, the survey contributed valuable information on adolescents' acquisition of the consumer role.
A somewhat similar study was conducted by Moschis and Moore (1979) to examine the influence of socialization agents and certain demographic characteristics on adolescents' consumer decision-making competencies. The competencies examined pertained to information-seeking, product evaluation and purchase, brand preferences, and sex-role perceptions in household decision making. These were examined relative to three socialization agents (i.e., mass media, peers, and the family) which were operationalized as television viewing, family communication about consumption, and peer communication about consumption. The demographic characteristics included social class, sex, and age.

Data for the study were collected by questionnaires which were administered to adolescents (N=734) attending 12 secondary schools in Georgia. The results showed that when compared to mass media and peers as sources of consumer information for purchasing selected products, parents were preferred twice as much, particularly for products where price, social acceptance, and performance were of great concern. Although adolescents preferred to consult with their parents and relied on the information received from them, parents did not seem to be as influential in adolescents' decisions regarding which product(s) to purchase.

In this study, age was the only variable which appeared to have some relationship to adolescents' decision-making cognitions and behaviors. Adolescents' age was found to be significantly related with the number of information sources preferred. Prior to making a decision, older adolescents (those enrolled in senior high schools) tended to make use of more sources of consumer information, but relied less on their parents for
information and advice in purchasing than their younger counterparts (those enrolled in middle schools).

Another study on adolescent consumer socialization was conducted by Moore and Moschis (1981) to examine how adolescents learned the consumer roles and perceptions which they would assume in adult life. The study examined the socialization effects of mass media, the school, and the family on adolescents' perceptions of (a) occupational aspirations and choice, (b) purchase expectations, (c) deferred gratification, (d) consumer role perceptions, and (e) sex-role perceptions in family decision making. Demographic variables incorporated in this study were age, race, birth order, and social class.

The sample for the study included 784 adolescents from two secondary schools (one middle school and one senior high school) in each of six counties in Georgia. Data were obtained by questionnaires which were completed by students during their regular classroom sessions. Results showed that among the socialization agents studied, the family appeared to play an important role in the development of adolescents' consumption-related orientations, especially their formation of expectations regarding purchase of products, and effective consumer behaviors. Overt communication between parents and adolescents concerning goods and services also appeared to be positively related to adolescents' occupational choice.

With regard to the influence of demographic factors, school, social class, and birth order appeared to have tremendous influence on adolescents' occupational aspirations. It was found that the more courses
in consumer education, home economics, economics, environmental science or any other consumer-related courses adolescents had taken at school, the greater were their perceptions of what they would like to do for a living. Adolescents from upper social-class groups also had higher occupational aspirations than those adolescents from lower social-class groups. Higher occupational aspirations were also likely to be held by adolescents who were first-born children or an only child of the family.

The studies reviewed thus far have been cross-sectional types of studies which assessed short-term effects. In an effort to assess both short-term and long-term effects of socialization agents on a wide variety of consumption-related orientations of adolescents, Moschis and Moore (1983) conducted a longitudinal study of junior and senior high school students in five counties in Georgia. Data were collected on two occasions. During the first data collection period, questionnaires were administered to 556 adolescents in 6th through 12 grades, then approximately 14 months later to a subsample of 230 of the original sample that was available. Whenever necessary, matching on the questionnaires was done using respondents' birthdate and other demographic variables. Usable data were obtained from 211 respondents.

For purposes of comparison with previous cross-sectional studies, similar demographic variables, instrumentation, and analytical procedures were used. The independent variables included television viewing and exposure, family communication about consumption, peer communication about consumption, formal consumer education, available income, sex, age, race, socioeconomic status, and birth order. The criterion variables included
(a) consumer affairs knowledge, (b) puffery filtering, (c) finance management, (d) attitude toward the marketplace, (e) consumer discontent, (f) brand preferences, and (g) purchase expectations.

Results of the study indicated that in the short term, parents appeared to play a relatively minor role in the development of adolescents' consumer skills. In the long term, however, parent-adolescent communication about consumption matters was positively linked to adolescents' level of brand preferences and their ability to filter puffery in advertising. The longitudinal data also revealed that, contrary to several cross-sectional findings, consumer-related courses taken at school were a strong predictor of adolescents' level of knowledge about consumer matters. Age, birth order, and available income also had significant relationships with adolescents' consumer affairs knowledge. Available income and birth order, however, were strong long-term predictors, whereas age was only a short-term predictor of such knowledge.

It was found that the more money adolescents had available to them, the greater their level of consumer affairs knowledge. In addition to being a strong short-term predictor of their consumer affairs knowledge, age appeared to be a strong short-term predictor of their ability to manage consumer finances, and their affective orientations toward product brands. Socioeconomic status was a strong predictor of their ability to filter puffery in advertising in both the short term and the long term, a short-term predictor of their ability to manage finances, and a long-term predictor of purchase expectations. Adolescents from upper social-class groups were more likely than their counterparts from lower social-class
groups to be able to filter puffery in advertising and to have greater expectations for purchasing major products at specific stages in their life.

The most recent study found in the literature under review was conducted by Moschis, Moore, and Smith (1984). The impact of family communication in the development of adolescents' consumer learning, and the effects of various learning mechanisms in adolescent consumer socialization were examined. A group of adolescents (N=734) attending 12 junior and senior high schools in six counties in a southern state completed a questionnaire during regular class hours. The questionnaire was designed to measure family consumption patterns, family communication about consumption, consumer affairs knowledge, consumer activity, and consumer role perceptions. Demographic information on sex, age, race, and socioeconomic status was also requested.

In this study, parents were found to influence adolescents' learning of some of the consumer skills measured. Data indicated that overt communication between parents and adolescents was significantly related to adolescents' perception of their consumer role and their consumer activity, but not to their knowledge of consumer affairs. Adolescents also appeared to acquire norms regarding consumer behavior by observation of their parents' consumer behaviors.

Among the four demographic variables studied, adolescents' sex and age were the only two which appeared to have some relationship to the development of their consumer knowledge. Whereas age was a strong predictor of their consumer affairs knowledge, the individual's sex was
only a weak predictor of such knowledge. Although males appeared less likely than females to communicate overtly with their parents about consumption, they tended to be slightly more knowledgeable about consumer affairs than females.

In summary, adolescent consumer socialization has been viewed as a social, interactive, learning process involving both cognitive and affective structures, and in which parents and teachers may be two of the important agents which facilitate such learning. The model upon which most adolescent consumer socialization research was formulated originated from socialization theories. Such theories emphasized the influence of social factors and individuals' cognitive structures in learning the consumer role.

From the studies available for review, researchers attempted to examine a variety of consumer competencies relative to the influence of the mass media, the family, the school, and peers as socialization agents. Certain demographic characteristics presumed to have some relationship to adolescents' acquisition of such competencies were also examined. Findings revealed that both the family and the school appeared to influence adolescents' consumer learning: the family, through parent-adolescent communication about consumer-related matters; the school, through consumer education courses taken.

Gender, age, and socioeconomic status/social class were the three demographic factors which appeared to have very strong relationships with adolescents' learning of most of the consumer competencies measured. Other factors found to have some relationship were birth order, race, and
adolescents' available income. Findings relative to the demographic factors were mixed, but there appeared to be strong indications that social class had a very strong influence on adolescents' acquisition of consumer competencies.

It appears that a great deal of adolescents' consumer socialization may be carried out within the informal environment of home and family. Family values, attitudes, beliefs, and behaviors tend to exert tremendous influence on adolescents' consumption-related experiences and subsequent adult behaviors. Such values, attitudes, and beliefs are transmitted primarily by parents, the chief socialization agent in that setting.

Within the formal environment of the school, however, adolescent students' acquisition of consumer-related knowledge, attitudes, and experiences may also be influenced by significant others, among whom are teachers. Both parents and teachers, therefore, share responsibility for the consumer socialization of adolescents.

Research Pertaining to Students, Parents, and Teachers

Numerous studies in education and psychology have incorporated these three groups (students, parents, and teachers) as subjects in the same study for purposes of comparison. Research has been conducted on a variety of concerns for American educators at both the elementary and secondary levels. Only three studies pertaining to school audiences in another country were identified in the current literature, and two of these focused on students, parents, and teachers in elementary schools.
This two-part section provides a brief review of (a) research on any topic pertaining to secondary schools and involving students, parents, and teachers as subjects in the same study, and (b) research incorporating the three groups of subjects with specific relevance to consumer education. As a consequence, the literature search for this section sought studies involving the three populations (i.e., students, parents, and teachers) in secondary schools, and such studies with specific relevance to consumer education. The objective was to identify appropriate procedures in the research literature for structuring of the current study involving three groups of subjects. The following discussion, therefore, focuses mainly on methodology (i.e., instrumentation, data collection, and analytical procedures). No reference will be made to findings, conclusions, or recommendations from the studies cited within this section.

Studies with relevance to secondary schools

A search of the literature revealed 13 studies which used secondary school students, parents, and teachers as subjects in the same study. Three of these studies pertained specifically to middle/junior high schools, and seven to senior high schools; two studies used a combination of students, parents, and teachers from both the elementary and secondary levels; one study focused on students, parents, and teachers at the junior and senior high school levels together. The seven studies pertaining specifically to senior high school students, parents, and teachers will be discussed briefly. These studies bear no relevance to consumer education, but will provide insight to the methodology used by the researcher in the present study.
Three studies were found to make comparisons among four groups of subjects. Caria (1981) looked at attitudes of 10th, 11th, and 12th grade students, their parents, modern language teachers, and administrators regarding modern language study in senior high schools in Alberta, Canada. Anderson (1984) examined 11th and 12th grade students', their parents', teachers', and administrators' opinions regarding the importance of music education objectives in public high schools in Kansas City, whereas, Thornburg (1981) examined similar groups of subjects' attitudes toward parent involvement in the schools.

In the first study, the researcher obtained a random sample of classes from three of the seven senior high schools. All students and their parents in each of those classes were included in the sample. The sample size of teachers and administrators, however, included all modern language teachers (N=18) and administrators (N=50) in all seven schools in the district. The report indicated that the responding sample included 332 students (148 of whom were in the 10th grade, 104 in the 11th grade, and 80 in the 12th grade), 16 teachers (88% response), 41 administrators (82% response), and 94 parents (58% response). In order to obtain the parent sample, every other individual in the student sample selected was given a copy of the parent instrument to take home to their parent. This provided a match of only half of the student-parent sample, but there was no indication in the report to suggest that the intent was to obtain a deliberate match among student, parent, and teacher respondents.

Anderson (1984), on the other hand, reported that the selected sample included all students in the 11th and 12th grades (N=158), their parents
(N=158), teachers (N=9), and administrators directly involved in music education in the four senior high schools. In this study, deliberate effort was made to obtain a matching of students with their parents and teachers in the selected sample. Each student respondent was given an envelope containing the questionnaire and a cover letter explaining the purpose of the study to take home to his or her parent. Students were instructed to return completed questionnaires to their teachers. Contrary to the study cited above, the sample of teachers included only those teachers of the students in the sample who taught choral music. Data were obtained from 158 students, all of the nine teachers, 41 parents (26% response), and 13 administrators (68% response).

Thornburg (1981) used a random sample of 202 respondents including 60 students, 62 parents, 59 teachers, and 21 principals from a metropolitan school district and two adjoining counties. Although the subset of students, parents, and teachers in the sample size for this study was fairly close in numbers, here again, the report did not indicate whether effort was made to match the students with their parents and teachers, or to attain non-matched, but equivalent numbers of subjects in the categories. The report indicated a 79% response rate on the questionnaires, 76% producing usable data, but there was no mention of the return rate for each of the groups of subjects.

Of the three studies discussed, two utilized subsets of students. Caria (1981) selected three groups of students according to grade levels in order to make comparisons among younger and older students, whereas Anderson (1984) used students at the two upper grade levels.
With regard to instrumentation and analytical procedures, all three studies used questionnaires in structured response format for data collection. Caria (1981) used four different questionnaire versions, one for each group of respondents. Attempt was made, however, to format and categorize items in each version to facilitate comparison among groups. The student instrument was a three-part questionnaire adapted from an earlier study and contained 126 items. No two parts had the same number of items, but students were required to select only one part, based upon the instructions given for selection. This meant that different students answered different numbers of items, depending upon which categorization they happened to fit. The majority of items on the student questionnaire were rated on a 3-point scale with different verbal responses per item. Other items were "Yes/No" options. The other data collection devices included a 42-item teacher questionnaire, a 35-item parent questionnaire, and a 36-item questionnaire for administrators. No information was given in the report as to the quality of these instruments, except that they were pilot-tested for usability with a group of university graduate students who were public school teachers and administrators. Similar to the previous study, data in this study were also analyzed for each group of subjects independently. Descriptive statistics (frequencies and percentages) and chi-square analysis were used.

Anderson (1984) developed a single questionnaire containing 35 items to be used by all respondents. The items were organized into seven categories, each with an equal number of items arranged in a 6-point Likert-type scale from "Of Least Importance" (1) to "Of Greatest
Importance" (6). This six-degree scale was used in an effort to force only positive or negative groupings of responses. The instrument was pilot-tested twice, assessed for validity and reliability before data collection, and found to have a Kuder Richardson-20 reliability coefficient of .92. Data for this study were analyzed by items for each group of subjects separately using chi-square statistics.

Thornburg (1981), on the other hand, adapted and revised a 40-item questionnaire originally designed for kindergarten populations to a 30-item 5-point Likert-type format appropriate for secondary school populations, with possible responses of "Very Much," "Much," "Somewhat," "Little," and "None." Data for this study were analyzed using factor analysis for categorization of items into subscales, univariate analysis of variance tests for analysis of the subscales, and multivariate analysis of variance tests for group comparisons.

Four studies were found to make comparisons among three groups of subjects. Schab (1984) administered a questionnaire to high school students, their parents, and teachers, all of black ethnic origin, to assess their reactions to minimum competency requirements for graduation from high schools in Georgia. Subjects were 300 high school students, 77 parents, and 79 teachers. Although the report indicated that the sample comprised parents and teachers of the students in the sample, there was no mention of the sampling procedure used, nor whether the sample sizes reported were the responding sample or the invited sample. There was no evidence that any effort was made to match the groups of subjects for this study. The report indicated that the instrument used was developed by the
researcher and contained 23 items, but there was no mention of analytical procedures used.

In an effort to determine the extent to which various Illinois constituencies perceived the need to reform education and work programs and practices in the school, Russell (1981) conducted a study in a small rural school district in Alexander County, Illinois. Subjects were (a) all 12th grade students attending Egyptian School, (b) parents or guardians of 12th grade students in the school, and (c) teachers of students in grades 9 through 12 in the same district. It was reported that only senior level students were selected because it was assumed that their responses would be more valid than those of their younger counterparts. Parents and teachers were targeted in recognition that both groups were essential for initiating and implementing school reforms.

The report indicated that all students and teachers were assembled in the school library on separate occasions to complete the instrument, and that all such participants completed the instrument. There was no indication, however, as to the actual number of participants in these two groups. There was indication, nonetheless, that 54 instruments were distributed to parents. It was reported that students hand-carried a copy of the instrument to their parent(s) or guardian(s) in a sealed envelope, and that out of a possible 54 instruments, 24 (44%) were returned. The reader is left to make the assumption that there were also 54 students in the sample group, but this was not reported in the literature reviewed.

Russell (1981) used a 27-item instrument adapted from a similar study. The modification made to the instrument was to change the response
format from a 3-point scale to a 5-point Likert-type scale from "Definitely Disagree" (1) to "Definitely Agree" (5). The 27 items on the instrument were classified into nine categories, and respondents were asked to rate the categories in order of importance. Subjects' responses to the 27 items were summed for each group and aggregated with respect to the nine categories. Means and standard deviations were computed for each subset of respondents separately. In order to determine the existence of statistically significant differences, analysis of variance was computed for each of the nine categories of outcomes.

Maloy and Seldin (1983) compared students', parents', and teachers' perceptions of the climate in public secondary schools in Greenfield, Massachusetts. The researchers reported that the goal in using these three groups of subjects was to determine the degree to which a climate of shared beliefs and values existed within the schools. It was hypothesized that agreement among students, parents, and teachers would suggest the presence of common school beliefs, thus indicating a school climate of collaboration; disagreement among the groups would be an indication of alternate, potentially conflicting beliefs, thus producing a school climate of contention. A high school and a junior high school were the focus of the study, but the report indicated no reason for this, whether it was intended just to obtain adequate numbers or for grade comparisons.

In this study, there were vastly differing numbers of subjects in each category of respondents. The sample included all faculty and administration personnel (N=110), all students (N=1,081) attending both high schools, and a random selection of parents (N=3,600) in the
community. No effort was made to obtain a match of subjects. The report indicated that of 1,191 survey instruments distributed to students and teachers, 1,107 were completed (93% return). This reported return rate, however, applied to the combined group of teachers and students. There was no breakdown of response rate for these two groups separately. It was reported, nonetheless, that 1,116 instruments were completed by parents, giving a 31% return rate.

Only one study was found where deliberate effort was made to sample equivalent number of subjects in each category in the invited sample. In an effort to contrast attitudinal differences among students, parents, and teachers toward high school education, Hedges (1980) conducted a study of 40 comprehensive public high schools in Florida. The sample size was a function of the number of faculty in the sample schools, but there was no interest in matching respondents in the three groups. For each faculty member, one student and one parent were selected by a somewhat random procedure specifically designed by the researcher to discourage teachers from selecting their most academically able students.

Of the 289 comprehensive high schools identified for the study, 54 met the criteria for selection. Because of the researcher's lack of prior knowledge of which of the 54 schools would have agreed to participate in the study, the number of questionnaires distributed was based upon the number of faculty in the 54 schools. Faculty totaled 3,446; therefore, questionnaires were sent to 3,446 faculty members, with similar numbers to be distributed to students and parents by the faculty. Forty schools, comprising 2,520 faculty members, participated in the study. Data were
obtained from 1,530 students (61% return), 1,343 parents (55% return), and 1,629 faculty members (66% return).

Hedges (1980) reported the use of three separate instruments which were published by the National Study of School Evaluation: a 34-item Student Opinion Inventory, a 53-item Parent Opinion Inventory, and a 64-item Teacher Opinion Inventory. All inventories asked different questions of each group of subjects, and all were divided into subscales. The student and teacher inventories contained six subscales, whereas the parent inventory contained 11 subscales. All responses were scored on a numeric scale from 1 to 5, and t-test analysis was performed on each item. Items on the Parent Opinion Inventory had similar verbal response patterns of "Strongly Agree" (5), "Agree" (4), "Disagree" (3), "Strongly Disagree" (2), and "No Opinion" (1). The student and teacher inventories, on the other hand, had different verbal responses for items. Other analytical procedures included correlations and chi-square test of independence.

The final study to be discussed in this section pertained to the use of two groups of subjects, but is reported here because it was among the very few studies found where effort was made to match students with their parents in the invited sample. La Fortune, Schultz, and Hughes (1983) conducted a study to assess the parent education needs of secondary students and their parents in Iowa. The population for the study included 8th grade students attending junior high schools, and 11th and 12th grade students attending senior high schools in Iowa school districts offering vocational home economics. The study incorporated these two categories of
students (i.e., high school juniors and seniors) in an effort to compare parent education needs of students according to grade levels.

Of the 457 school districts in Iowa, 112 met the predetermined criteria for selection. School districts were first stratified on the basis of enrollment size, then a random selection of 30 students from each of the 112 school districts was made. One senior high school with its corresponding junior high school in each randomly selected school district was invited to participate in the study. Twenty students were selected from each senior high school and 10 from each corresponding junior high school. All inventories for students were mailed to a home economics teacher in each school for administration to students at the school. Teachers were requested to forward the names and addresses of the parent or guardian for each participating student, and similar inventories were mailed to parents. Although this procedure ensured a match of students with their parents or guardians in the invited sample, the response rate from parents was extremely low. From the 11 school districts which agreed to participate in the study, the responding sample comprised 265 students and only 52 parents.

Studies specific to consumer education

Current studies pertaining specifically to consumer education and incorporating students, parents, and teachers as subjects in the same study were surprisingly sparse. Only three such studies were found in the literature under review, two of which utilized the case study approach to evaluate the effectiveness of vocational home economics programs in the nation.
Caputo and Haymore (1981) reported a study which incorporated both quantitative and qualitative data, the former from the National Census Study (Hughes, Rougvie, & Wood, 1980) conducted earlier, and the latter from case studies of students, parents, and teachers on the value of secondary consumer and homemaking programs. The focus of the report, however, was the case studies conducted after the National Census Study. In the case study research, no structured instrument was used for data collection. In an effort to obtain the sample, home economics personnel from various home economics organizations in each of the 50 states were invited to submit success stories of participants in both Consumer and Homemaking, and Occupational programs. Case studies were submitted from 74 participants, including students, parents, and teachers in such programs in 29 states. The report, however, focused only on approximately 48 cases of successful participants of eight programs. Twenty-two cases were self-reports from students; 22 were reports from teachers on successful student participants; four were reports from parents on their perceptions of the program's influence on their children's success.

Mears et al. (1981), on the other hand, reported a very intensive study of secondary consumer and homemaking programs for seven states in the nation. The project used a highly structured approach for data collection, including observation, interview, survey instruments on affective components, achievement tests, and review of records and documents. Contrary to the study reported first in this section, this approach required both quantitative and qualitative data at one and the
same time. To achieve this aim, several instruments were developed to measure subjects' affective and cognitive components.

All instruments were validated and pilot-tested by a sample of 355 participants, 347 of whom provided usable data for the pilot-test analysis. Two instruments used in the pilot study were found to have extremely low reliability (.32 and .05) and were replaced by appropriate instruments known to have much higher reliability. In order to assess the consumer education component of vocational programs, the Iowa Consumer Education Test (Harder, 1979) with a Spearman-Brown reliability of .90 was included among the several instruments. This was a 50-item test arranged in a four-option multiple-choice format and designed to measure students' knowledge of consumer education. All instruments used in the study had a reliability of .85 or above.

In an effort to obtain the sample for the study, a letter was sent to selected home economics educators who were thought to be interested in case study research. Of the 35 people contacted in 34 different states, 24 indicated their interest in the project. A research package (containing detailed instructions and information about the study, instruments, scoring procedures, and procedures for writing up the case studies) was mailed to such persons who indicated interest, but only seven case studies of programs were received. The choice of schools for study was the decision of the individual developers of case studies, but following the criteria for effective programs outlined in the research package.
All case studies included students, teachers, and parents involved in consumer and homemaking programs. According to the report, the rationale for incorporating students in the study was that (a) programs existed for students whose needs must be met, and whose learning was the focus of consumer and homemaking programs; (b) legislative mandates indicated that certain specific types of student audiences should be served in such programs; (c) student gains in knowledge, skills, and attitude could contribute greatly to program success, and for comparison among those enrolled in programs and those not enrolled in such programs. Teachers were considered the key factor in effective programs, and were therefore included in the study.

Parents were included for three reasons: (a) because of their influence on students' attitudes, needs, and perceptions; (b) because of their vested interest in their children who were involved in learning concepts which were directly linked to home and family life; (c) because parents' knowledge of and opinions concerning the programs could constitute an important dimension of the success of such programs. The seven case studies reported data on 218 students, 11 teachers, and 111 parents. These figures varied, however, for data collected using the various instruments.

In both case studies reported in this section, nonrandom sampling procedure was applied. There was no interest in obtaining a match of students with their parents and teachers, nor of obtaining equivalent number of respondents in each category of subjects in the invited sample.
Guevara-Umaña (1986) also used a nonrandom sample to assess the consumer education needs of high school students, their parents, and home economics teachers in Costa Rica. This study, however, could be described as survey research. The objectives of the study were to (a) determine the degree to which current students, former students, home economics teachers, and students' parents understood six major consumer education concepts; (b) compare perceived needs for consumer education among the student groups, teachers, and parents; and (c) ascertain differences in consumer education knowledge levels by sex, groups, and geographical regions.

The sample for the study came from seven technical agricultural high schools located in rural areas, and represented the seven provinces in Costa Rica. Subjects included 12th grade students currently enrolled, former students, home economics teachers currently employed at the schools, and students' parents. Schools in the sample were selected nonrandomly on the basis of geographical regions, but also on the recommendation of the Ministry of Education in Costa Rica, the approval of the director of the school, and feasibility of access by the researcher. One school in a rural area in each of the seven provinces in Costa Rica was recommended by personnel from the Ministry of Education.

No effort was made by the researcher to match students and parents, nor to obtain equivalent number of subjects in both groups in the invited sample. The sample included whoever was available for the four groups of subjects. The former students in this sample had graduated from high school one to eight years prior to the study. In addition, there was no
indication whether the subgroup of teachers included only those home economics teachers who taught students in 12th grade classes, or whether all home economics teachers in the schools were included regardless of grade levels taught.

Data were collected using a two-part questionnaire developed by the researcher. Part A requested general information on consumer experiences: Part B was a test of consumer education knowledge in six major concept areas, namely, (a) consumer rights, (b) consumer responsibilities, (c) consumption and lifestyle, (d) consumer decision making, (e) consumer needs and wants, and (f) resource management. A table of specifications provided guidelines for construction of items.

The report indicated that the general information section was designed specifically for each of the four groups of respondents, and that questions related directly to consumer behavior. No information was given, however, as to the total length of the instrument, or the number and format of items in the general information section. The achievement test, however, had 40 multiple-choice items, some of which were adapted from an achievement test developed by Harder (1979). Other items were developed by the researcher and pertinent to Costa Rica.

The instrument was validated by experts in consumer education, curriculum, and evaluation, then pilot-tested twice. The final instrument was translated into Spanish for data collection. Kuder Richardson Formula #20 reliability coefficients were 0.51 for current students, 0.67 for former students, 0.74 for home economics teachers, and 0.70 for students' parents.
All questionnaires were administered by the researcher to students and home economics teachers in their respective schools. A home economics teacher and the school's principal assisted in administering instruments to parents and former students. All who responded to the questionnaire provided usable data. The data-producing sample comprised 519 subjects, of which 227 were current students, 99 were former students, 124 were parents, and 69 were teachers. Except for teachers, all groups had a representation of both sexes. The total sample included 328 females and 191 males. All teachers in this sample were females.

Data were analyzed by groups, sex, and geographical regions (provinces). Analytical procedures included frequencies and percentages for the experience items; item analysis for the quality of the achievement test; one-way analysis of variance and Scheffe's Multiple Range test for differences in mean scores on the knowledge test for each of the six content categories; and a needs index analysis for group perceptions of their need for consumer education.

In summary, several studies incorporating students, parents, and teachers as subjects in the same study were available in the current literature. Researchers have made comparisons among these groups of subjects in relation to such constructs as attitudes, perceptions, opinions/views, and reactions at both the elementary and secondary levels of the school system. The majority focused on elementary schools, and some have combined elementary and high school audiences. A very limited number of studies were focused specifically for these groups together at the upper high school level.
Where students, parents, and teachers were incorporated in the same study, a variety of sampling procedures has been used. Some researchers made use of randomization; others used nonrandom samples. Some selected parent and teacher samples on the basis of students' grade levels selected for the student sample. Such researchers used students at specified grade levels together with their parents. In some cases, teachers were those who taught the same grade levels from which the student sample was selected; in other cases, the teacher sample included teachers of all grade levels throughout the school. Others have used a random selection of students, parents, and teachers throughout the school, no effort being made to match selected students with their parents and teachers of the specific subject-matter area, nor to obtain an equivalent number of respondents in each group. Some researchers, on the other hand, indicated as close a match as possible in the number of parents and students in the selected sample, with a relatively small sample size of teachers. One study indicated the use of equivalent but nonmatched group sample sizes in the invited sample, and these were attainable on the basis of the number of faculty members participating in the study. Two studies deliberately matched students and parents in the selected sample, but in both instances, the data producing sample provided different numbers of respondents in each group, with a relatively low response rate from parents.
Most studies indicated data analysis for each subset of respondents separately. Different researchers used different analytical procedures, including factor analysis, analysis of variance (univariate and multivariate), chi-square, frequencies, and percentages.

The majority of studies in the current literature, however, have been conducted in North American countries. Only one study pertaining to consumer education needs of students, parents, and teachers in another country was identified. In addition, such studies utilizing all three groups of subjects and pertaining specifically to consumer education were relatively nonexistent. Only three studies were found to meet these criteria, and two pertained to an assessment of the effectiveness of Consumer and Homemaking programs in the United States. The third study, conducted in Costa Rica, was a needs assessment study designed to assess the needs of Costa Rican families for consumer education.

Related Consumer Education Research

A search of the consumer education literature revealed very few studies that incorporated students, parents, and teachers in the same study. In order to provide adequate background for formulation of the present study, however, it was also necessary to search the literature further for research information pertinent to the consumer education knowledge, attitude, and experiences of student, parent, and teacher audiences.

Researchers in education and marketing have explored cognitive and affective aspects of consumer education for a wide range of audiences. Such studies also pertained to a wide range of consumer education
subject-matter content. Because of the multitude of studies in the literature, it was necessary to determine criteria for selection of related literature for review. The criteria used in selecting research reports to be reviewed in this section were: (a) studies which assessed knowledge, attitude, behavior, or experiences in consumer education or consumer economics; (b) studies which used senior high school students, teachers, or other adults as audiences; (c) studies which were reported during the past 10 years.

Research reports falling outside the limitations prescribed for review were cited only when considered particularly relevant to the subject at hand. This section, therefore, reviews the literature in the following areas: (a) studies pertaining to high school students' consumer education knowledge, attitude, or experiences; (b) studies pertaining to teachers' or prospective teachers' consumer education knowledge, attitude, or experiences; (c) studies pertaining to consumer education knowledge, attitude, or experiences of adults, but which bear relevance to parents.

Studies pertaining to high school students

Most of the consumer education studies in the literature used high school students to assess the effectiveness of consumer education on the consumer competencies of those who had taken consumer education courses. Harder (1979), for example, assessed the consumer education knowledge of high school students in Iowa. The sample included all students enrolled in consumer education classes in seven of the nine schools offering a consumer education course during the first semester of the 1978-79 school year, and contained 140 such students.
The study was designed to develop a valid and reliable achievement test for measuring consumer education competencies of secondary school students in Iowa. Level 1 Competencies identified in the Guide for Teaching Management and Consumer Education (Iowa State University, 1977) formed the basis for the content areas of the achievement test. These competencies were defined as basic skills necessary for being an adequate consumer. The competencies were categorized into seven areas: values and ethics underlying consumption, consumption as an expression of life style, consumer decision making, consumer information, change and the consumer, the consumer and the economic environment, and consumer rights and responsibilities. Alternate forms of the test were developed, each form containing 50 items in a four-option multiple-choice format. The tests were assessed for content validity and pilot-tested for usability.

One of the two test forms was assigned to each of six schools, whereas one school which had two consumer education classes was assigned both test forms, one for each class. Towards the end of the first semester, the test was administered by participating teachers to all students taking consumer education classes. All tests were administered during students' class times. Students recorded their responses on computerized answer sheets provided by the researcher. All questionnaires and answer sheets were returned in a sealed self-addressed envelope also provided by the researcher.

Usable data were obtained from 109 high school students, 56 responding to Test Form A, and 53 to Test Form B. Items were analyzed for test quality. The test statistics showed that the mean scores were 29.6
and 28.9, with a standard deviation of 6.4 and 7.8 on Form A and Form B, respectively. The tests were found to have an estimated Kuder-Richardson Formula #20 reliability coefficient of .78 and .85 on Form A and Form B, respectively.

Further data analysis revealed that a significant relationship existed between students' test scores and consumer education courses taken. On the basis of the finding, Harder (1979) recommended (a) that a study should be made of the major sources from which students obtained their consumer education and management competencies; (b) that assessment of student attitudes toward, and performance related to, consumer education and management concepts should be made; and (c) that relationships between student achievement, attitude, and performance should be determined.

Five additional studies attempted to assess the impact of consumer education courses or large-scale programs on students' knowledge, attitudes, or subsequent behavior (Cogle, 1977; Crawford & Hughes, 1984; Hawkins, 1977; Langrehr, 1979; Langrehr & Mason, 1978). The literature, however, reveals conflicting results as to whether consumer education helped consumers improve their competency (i.e., knowledge, attitudes, skills) and their subsequent consumption behavior.

In a literature review on the effectiveness of consumer education programs in secondary schools, Langrehr (1979) pointed out that, except for one study, previous research indicated that past consumer education efforts did not increase students' competency levels. Hawkins (1977), for example, used a posttest-only control group design and conducted a
follow-up study of high school graduates to determine whether students who took a consumer education course during their senior year differed in their consumer behavior from those who did not take such a course.

The study was designed to look at the money management and purchasing practices of students two years after graduation from high school. The population for the study included all seniors who completed a consumer education course in Kansas high schools during the 1971-72 school year. Out of the 370 high schools, 42 were offering some form of consumer education. These 42 schools were stratified on the basis of size, and a random selection made of two schools in each category, except the largest which contained only one school. Names and addresses of students who completed a consumer education course during that year, as well as those who did not take such a course, were obtained. Those students who did not take such a course formed the control group which was obtained by a systematic sampling procedure. Ten schools participated in the study.

Three hundred and ninety-six students (201 of whom had taken a consumer education course and 195 who had not) were asked to participate.

Data were collected using a questionnaire containing 18 items. The questionnaire was developed by the researcher, validated by a jury of five experts in consumer education, pilot-tested for readability and clarity, and revised before final use. All questionnaires were mailed to participants, and three follow-up efforts were made. Of the 335 questionnaires sent out, 272 were returned, providing a return rate of 81%. 
Results of the study revealed that students who did not take a consumer education course as a high school senior managed their money, used credit, borrowed money, and made purchases in a manner quite similar to those who had received instruction in those areas. Only for one question, which dealt with the choice of savings institutions, was there a significant difference in behavior between the two groups of students. Generally, the behavior of students who did not take a consumer education course while at school differed little from those who took a course. This finding suggested that the consumer education course had very little or no significant impact on students' behavior two years after having taken the course, and appeared to provide further support to previous similar findings.

Langrehr and Mason (1978) also used a control group design to assess the effects of consumer education instruction on the consumer economic proficiency of junior and senior high school students in Illinois and Alabama. These two states were selected because, at the time of the study, Illinois was a state requiring consumer education units for all students, whereas no such mandate existed for Alabama. The consumer education units included credit use, money management, savings and investment, and insurance.

The specific purposes of the study were to determine (a) differences in the level of consumer economic competency between students who were required to receive instruction in consumer education and students who did not receive the instruction, (b) differences in consumer economic competency between students who had received instruction in consumer
education and students who had received instruction in economics to meet state requirements, and (c) differences in consumer education competency level based on social class membership, post-high school career plans, and sex of student. The researchers used a quasi-experimental design—the pretest-posttest nonequivalent control group design. There was random selection of classes, but no random assignment of subjects to experimental and control groups, and all subjects were given a pretest and a posttest.

Subjects were 90 junior and senior high school students in Illinois and 46 high school juniors in Alabama. In an effort to obtain the necessary sample size for the study, four sections of two intact classes were chosen in Illinois. The classes were chosen by randomly selecting two sections of a consumer education course and two sections of an economics course that were taught by the same consumer education or economics teacher. The Illinois sample formed the experimental group. In Alabama, a random selection of three of the nine classes in an American history course was made. Students in these three classes made up the control group.

The instrument used to collect data for the study was a revised version of the Consumer Information Test (Claar, 1973) designed to measure consumer education knowledge in specific content areas required of students attending Illinois high schools. This questionnaire was selected by the researchers because it covered content areas determined by 74% of teachers and 80% of students in Illinois to be important in a consumer education course, and also had content validity as established by a panel of experts in consumer education. The test contained 68 items on credit,
money management, savings and investment, and insurance, and had a reliability coefficient estimate of .78. Students in each state were administered the test at two different time periods (i.e., two weeks after the start of the semester and two weeks before the end of the same semester). Data were analyzed using analysis of variance for differences in pretest scores, and one-way analysis of covariance for tests of the hypotheses in the study.

Contrary to the study discussed previously, the findings of this study indicated that students who received instruction in consumer education or economics achieved significantly higher scores than those students who did not receive either instruction. In addition, students who received instruction in consumer education were found to have significantly higher consumer education competency scores than those who had taken instruction in economics. On the basis of these findings, Langrehr and Mason (1978) concluded that students' consumer economic competencies could be improved significantly if students were required to enroll in a course which was specifically designed to present consumer education units.

Significant differences in consumer economic competency levels were identified on the basis of sex, social class, and post-high school career plans of students. The results indicated that no differences in consumer economic competency existed between students in upper social-class groups in the two states, or between upper and lower social-class groups within each state. Significant differences were found, however, among students in the lower social-class groups in the two states. Students in the lower
social classes in Illinois had a higher mean score on the test than students in the lower social classes in Alabama. The indication was that after exposure to consumer education units in personal finance, students from lower socioeconomic groups had a higher competency level than their counterparts with no such education.

Whereas no significant differences were found between the competency scores of male and female students, male students who were required to take a consumer education course had significantly higher competency scores than those male students who were not required to take such a course. In addition, students who had no plans to attend college were found to gain higher competency scores than students with plans to attend college.

Langrehr (1979) also reported on another aspect of the same Illinois-Alabama consumer education study. The researcher used another set of data collected during that study in an effort to determine whether instruction in consumer education or economics had any impact on students' attitude toward the marketplace, and to make comparison between students' consumer education knowledge scores and their attitude scores. A second instrument, Lundstrom's Business Opinion Survey, administered at the same time and in the same manner as the Consumer Information Test mentioned previously, provided data for the attitude aspect of the study. The attitude inventory contained 82 statements to be rated on a 6-point Likert-type scale ranging from "Strongly Agree" to "Strongly Disagree."

Similar analytical procedures as described in the Illinois-Alabama consumer education knowledge study were used. The researcher reported
that scores for the 82 attitude items were summed and used in analysis of variance to test for pretest differences, and analysis of covariance to test for posttest differences in attitude. The lowest total attitude score, 82, indicated extreme content with business, while the highest score, 492, indicated extreme discontent with business. Pretest scores were used as covariates for analysis of posttest differences.

No difference in attitude scores was found between students from Illinois and those from Alabama. The results of the study indicated, however, that while learning about the marketplace, Illinois students did change their attitude toward it. When compared to students enrolled in economics courses, students who received instruction in consumer education appeared to have developed a more favorable attitude toward the marketplace. This finding, according to the researcher, was especially noteworthy because prior to taking the course, the consumer education students had significantly more negative attitude toward business than did the economics students. The researcher noted that such finding was a clear illustration that instruction in consumer education had the potential for improving students' consumer competency in, and better understanding of, the market environment.

Because of the small sample size, however, the researcher stated that the conclusions should be accepted with caution. He further suggested that in order to make the conclusions more generalizable, the study should be replicated with a larger sample, and that additional variables such as number of consumer education courses taken by the teacher, and teacher's attitude toward business, should be given consideration.
In a statewide study, Cogle (1977) also used a control group design to assess the effectiveness of teaching consumer education concepts in home economics courses in secondary schools in Florida. The study was designed specifically to develop an appropriate device for evaluating the effectiveness of a semester consumer education course in home economics. A test containing 82 multiple-choice items was first developed by the researcher. The test items were based upon concepts defined in the Florida Free Enterprise and Consumer Education Act, 1974; concepts included in the Florida guide for management and family economics; and information collected from teachers and resource personnel. In order to ensure that students completed the instrument within the time available, the 82 items were divided to form two tests. Nine additional items from the affective domain were added to each test, resulting in two 50-item questionnaires.

The questionnaires, together with answer sheets, data sheets, and instructions for administration, were mailed to teachers in the 72 schools selected to participate in the study. The sample included an experimental group and a control group. The experimental group was made up of 457 high school students who had completed a consumer education course in home economics previously. Twenty classes provided the students for this group. The control group, on the other hand, included 1,110 high school students from 49 beginning semester consumer education classes in home economics.

The instruments were administered to students by their home economics teachers. Data were collected from 1,567 high school students. All
questionnaires and answer sheets were returned by mail in a stamped self-addressed envelope provided by the researcher.

In order to assess the quality of the instrument, item analysis was done for each test for the experimental and control groups separately. Item analysis showed that Test A had a mean difficulty of .61 for the experimental group and .58 for the control group; mean discrimination index of .54 for the experimental group and .47 for the control group; standard deviation of 10 for both experimental and control groups; Kuder-Richardson Formula #20 reliability coefficient of .94 and .91 for the experimental and control groups, respectively. Test B had a mean difficulty of .63 for the experimental group and .64 for the control group; mean discrimination of .49 for the experimental group and .47 for the control group; standard deviation of 9 for both experimental and control groups; Kuder-Richardson Formula #20 reliability coefficient of .92 and .91 for the experimental and control groups, respectively.

The t-test analysis indicated that students who had taken a semester consumer education course in home economics obtained a higher mean score on the achievement test than students who had not taken such a course. Although there was no statistically significant difference between the mean test score of the experimental and control groups, the researcher speculated that the higher mean scores of the experimental group were most likely due in part to the knowledge gained from the consumer education course.

In an attempt to assess consumer outcomes of secondary vocational consumer and homemaking programs in Iowa, Crawford and Hughes (1984) also
used a control group design. Outcomes were defined as knowledge of consumer skills; attitude, behavior, and intent toward these skills; and those outcomes perceived by students as a result of participation in consumer and homemaking programs. Specific objectives of the study were to identify (a) differences in consumer knowledge, attitude, intent, and behavior between homemaking and nonhomemaking students, and (b) perceptions of consumer outcomes resulting from instruction.

Data gathering techniques included questionnaires and telephone interviews. The researchers designed two instruments, one to be administered at the end of students' senior year; the other as a follow-up instrument to be administered six months after graduation. The content for the instruments was formulated on the basis of competencies identified in the Guide for Teaching Management and Consumer Education (Iowa State University, 1977). The Consumer Education Inventory was a four-part questionnaire containing 69 items. The questionnaire identified background information, students' knowledge, attitude, and intent with respect to consumer skills.

The consumer knowledge component included 30 multiple-choice items from the study by Harder (1979) reported above. The attitude and intent components contained 30 items (18 for attitude and 12 for intent). Such items were to be rated on a 9-point Likert-type scale of agreement/disagreement, with "1" indicating "Strongly Disagree," "5" indicating "Uncertain," and "9" indicating "Strongly Agree."

The Consumer Education Interview Schedule was designed as a follow-up instrument for both homemaking and nonhomemaking students. The follow-up
was a telephone interview. The instrument assessed respondents' status following graduation, their attitude toward selected consumer concepts, and their consumer responsibility and behavior. In addition, it also assessed homemaking students' perceptions of consumer outcomes of the homemaking classes they had taken. The attitude component used a 9-point scale to indicate the degree to which students felt bad/good toward selected consumer concepts, such as comparison shopping and budgeting. Behavioral items were structured "Yes/No" responses, as well as open-ended items to report specific consumer experiences of students. The interview schedule was validated by consumer and evaluation specialists, pilot-tested, and revised before use in data collection.

School districts offering vocational home economics programs in Iowa were stratified on the basis of size. Districts with the largest enrollments were included automatically in proportion to statewide enrollments in consumer and homemaking. All schools (N=109) within the districts selected were included in the sample. Of the 109 schools, 97 agreed to participate in the study. Respondents were randomly selected from among the graduating students (a) who had taken a minimum of three semesters of consumer and homemaking education courses from grades 9 through 12, and (b) who had not taken any homemaking course in grades 9 through 12. Nonhomemaking students selected were to match the homemaking students as closely as possible with respect to socioeconomic status, grade point average, and sex. Because most students in such classes were females, teachers reported difficulty in matching students on all the criteria requested. One teacher in each school in the sample was
instructed to use a specified random procedure for selection of students to be included in the sample. Questionnaires were administered to students by their teachers. Homemaking students formed the experimental group and nonhomemaking students formed the control group.

Of the 89 schools returning responses, usable data were obtained from 151 students (homemaking N=87; nonhomemaking N=64). Usable interview data were obtained from 137 students (homemaking N=80; nonhomemaking N=57). Data were analyzed using a variety of procedures according to the type of measurement values. For continuous data, means and standard deviations were computed and analysis of variance used for group comparisons. For discrete data, frequencies and percentages were calculated with chi-square analysis used to determine differences between the two groups. Data on background information provided the basis for analysis and established usability of the control group design.

The analysis of consumer outcomes resulting from participation in consumer and homemaking education programs revealed that no significant differences existed between homemaking and nonhomemaking students and their consumer education knowledge. Selected differences were found, however, in consumer attitude, intent, and behavior. Homemaking students appeared to have higher mean scores for attitudes relating to planning ahead, using label information, promoting improved products, and cutting costs. Homemaking students showed greater intention of planning ahead in general but specifically as related to money, and greater intention in fulfilling the consumer's role in promoting improved products and services. These students also reported that consumer information gained
from homemaking classes differed from other courses because of its application to the individual and family. In addition, the majority (86%) indicated that consumer and homemaking courses helped them as consumers.

One study was found to assess the effects of different types of consumer education programs on high school students' increase in knowledge of consumer education concepts. Hellums and Gorman (1984) used a pretest-posttest design to examine knowledge gains in consumer education concepts among two groups of secondary vocational home economics students in Mississippi. Subjects were 361 high school students from nine schools offering vocational home economics programs. Students in the first group were enrolled in a semester course designed specifically to concentrate on consumer education concepts. Nine consumer education classes provided subjects for this group. Students in the second group were enrolled in eight other consumer and homemaking classes, including family living, child development, and housing.

A consumer education achievement test developed in the study by Harder (1979) reported above was used to collect data for this study. Harder's test was a valid instrument with a reported Kuder Richardson reliability coefficient of .90. The instrument also included a section requesting demographic information, and items were adapted from a previous study found in the relevant literature. Data were requested on age, sex, ethnic background, location of residence, college plans, and prior enrollment in consumer and homemaking programs.

All students in the sample (N=361) took the pretest, and 324 took both the pretest and posttest. Of the total number who took both tests,
166 students were enrolled in semester consumer education classes, and 158 students were from other consumer and homemaking classes. All 324 students (89% response) provided usable data for the study.

Analysis of variance and t-tests were calculated to determine differences between gain scores and other variables. The data indicated that although students enrolled in courses designed specifically to present consumer education content had a higher average increase in score from pretest to posttest, there was no statistically significant difference in the type of program from which students learned consumer education content. Students in both groups increased their scores from pretest to posttest. No significant difference in gain scores was found for students' sex, age, ethnic background, college plans, or socioeconomic factors.

Studies pertaining to teachers

Studies pertaining to consumer education aspects of teachers have been conducted to determine teachers' attitude toward consumer issues (Burton, 1972; Davis, 1973), consumer education and consumer economic knowledge (Garman, 1979; Lemmon, 1962; Lofgren & Suzuki, 1979; Lytton, Garman, & Machooka, 1984), and teachers' perceptions of students' needs for consumer education (McElrath, 1980/1981). This section discusses four such studies which were conducted over the past 10 years.

Three studies were found to assess the capability of teachers to teach consumer education. Garman (1979) conducted a national assessment of the consumer education knowledge of prospective secondary teachers. The objectives of the survey were to conduct a nationwide assessment of
the consumer education literacy of prospective consumer education teachers as measured by a valid and reliable test, and to examine relationships between achievement on the test and selected variables, including expected graduation date, institution size, and socioeconomic status. Institution size was measured by the number of prospective teachers; socioeconomic status was measured by father's occupation.

The instrument used to collect data for the study was the Test of Consumer Competencies developed for a former study by Stanley (1977). The test was a standardized norm-referenced achievement test designed to measure knowledge in 14 areas of consumer education. It contained two equivalent forms, each containing 55 multiple-choice items based on 55 objectives from the Illinois consumer education revised guidelines. The test was normed using 7,683 Illinois students in grades 8 through 12, with 3,857 responding to Form A and 3,826 to Form B. Kuder-Richardson Formula #20 reliability coefficient estimate was .73 for Form A and .74 for Form B.

An instrument to obtain personal and demographic information was developed by the researcher. Information requested included gender, expected date of graduation, eligibility for a teaching certificate, school level of expected certification to teach, major and minor, college level consumer education courses completed, and father's occupation.

In an effort to determine the number of prospective teachers (i.e., college graduates who would be certifiable to teach), a census was mailed to all 540 institutions that were members of the National Council for Accreditation of Teacher Education (NCATE). Responses to the NCATE survey
were obtained from 461 (85%) institutions. The institutions which responded to the census were then stratified by size according to the number of seniors expecting to graduate and who would be certifiable to teach, and a random selection made from each of six strata.

One hundred and thirty institutions were selected and 85 agreed to participate in the study. Because of extreme weather conditions, one institution was unable to participate, leaving 84 participating institutions. The sample for the study, therefore, comprised 5,602 prospective teachers attending 84 of the NCATE member institutions. Each institution was sent a package with test Forms A and B interleaved. The two equivalent test forms were used to help assure independence of individual responses. NCS answer sheets were also provided by the researcher for recording of responses.

In order to facilitate data collection, test administrators at each institution were given leeway to test all prospective graduates in all educational settings, using any of a variety of approaches. In some instances, all persons in attendance at classes were tested; in other instances, intact classes were used. Those individuals who did not meet the criteria for inclusion in the results were thereafter excluded from the data analysis. As a result, out of an original sample of 5,602 prospective teachers, usable data were obtained from 4,309 (2,162 completing Form A and 2,147 completing Form B).

Statistical analyses were conducted for each test form separately. Mean scores on the test were 32.35 for Form A and 32.99 for Form B. Because of the similarity of mean scores on the alternate forms of the
test, the data were reported as composite figures. The overall test mean was 33 with a standard deviation of 6. This converted to an aggregate of 59% correct on the test. Item analysis on Form A indicated that 41 items discriminated at or above the .20 level, 18 of which were above the .30 level. Of the 18, five were above the .40 level. On Form B, 42 items discriminated at or above the .20 level. This included 14 at or above .30. Both forms of the test were reported as having strong discriminating power, but no mean discrimination index was stated in the report.

The findings indicated that prospective teachers did not generally possess a high level of consumer education knowledge, although they were required to teach the subject when they graduated from college as teachers. Overall achievement was slightly less than 60%, a score which, according to the researcher, did not seem to indicate a high level of comprehension of consumer education concepts. The researcher further pointed out that from the results, it appeared that many prospective teachers might be required to teach a subject for which they did not possess a high level of knowledge and for which they did not receive much academic preparation. It was found, however, that teachers who completed a course in consumer education attained higher scores on the test than those who had never taken such a course.

Test achievement was in no way related to teachers' expected date of graduation, size of institution, nor socioeconomic status. Apart from completion of consumer education-related courses, teacher's gender and geographic region were found to be significantly related to achievement on the test of consumer education knowledge. Male teachers, when compared to
female teachers, were found to have significantly higher scores. The researcher cautioned, however, that more research was necessary to ascertain what specific combinations of factors were related to high comprehension of consumer education concepts.

The next study pertinent to teachers' consumer education competency levels was conducted in Oregon by Lofgren and Suzuki (1979). The purpose of the study was threefold: (a) to develop a valid and reliable instrument for measuring teachers' knowledge of consumer education concepts as outlined in the Oregon's personal finance curriculum guide, (b) to use the validated instrument in an assessment of the competency levels of teachers of consumer education/economics/personal finance in Oregon's public schools, and (c) to compare consumer education competency levels among the subject specialties represented by the teachers.

The instrument developed for the study was subdivided into five content areas each containing 10 items. The 50-item multiple-choice questionnaire measured knowledge of content in the following areas: employment and income, money management, credit, purchase of goods and services, and rights and responsibilities in the marketplace.

The test was validated by 10 university and community business personnel in Oregon, then pretested using 71 undergraduate volunteers enrolled in a personal and family finance course at Oregon State University. Sixty-two percent of the items on the test had difficulty indices between .5 and .7; 85% had difficulty indices between .4 and .8. The instrument was reported as having good discriminating power, but no mean discrimination index was reported.
Kuder-Richardson Formula #20 reliability coefficients for the five content categories on the test were extremely low (employment and income, .21; money management, .35; credit, .16; purchase of goods and services, .27; and rights and responsibilities in the marketplace, .31). These low reliabilities were most likely due to the small number of items in each subpart of the test.

The sample for the study included 320 junior and senior high school teachers who taught consumer education/economics/personal finance concepts in their courses in Oregon's public schools. This included 80 teachers from each of the following subject specialties: business education, home economics, mathematics, and social studies. Questionnaires were mailed to participants, and two follow-up mailings were conducted. Usable data were provided by 185 teachers (52 business education, 50 home economics, 45 mathematics, and 38 social studies). This represented a 58% total response rate.

The findings of the study revealed that practicing teachers had low levels of consumer education knowledge. Less than 8% of the teachers answered 80% of the items correctly. The majority (45%) of the teachers answered 60% correct. Test achievement was in no way related to subject specialty of teachers. Mean scores by subject specialty ranged from 32.4 to 38.9. Home economics teachers had the highest mean score. Analysis of variance, however, revealed no statistically significant difference among total scores attained by teachers in the four subject matter specializations. This finding indicated that although the teachers in this sample had less than adequate knowledge of consumer education content
as outlined in the Oregon curriculum guide on personal finance, no single subject specialty was better prepared to teach consumer education concepts than the other. All teachers needed to upgrade their knowledge in this area.

Analysis of variance on subgroup scores revealed statistically significant difference between teachers in the four subject specialties on money management concepts. Mathematics teachers scored significantly (p<0.01) higher than teachers in the other three subject specialties on this concept. There were no statistically significant differences between teachers' scores on concepts pertaining to employment and income, credit, purchase of goods and services, or rights and responsibilities in the marketplace. Social studies teachers, however, scored highest on concepts pertaining to employment and income (X=6.6), and rights and responsibilities in the marketplace (X=6.7). Home economics teachers scored highest (X=7.3) on items pertaining to purchase of goods and services, and business education teachers scored highest (X=6.5) on items pertaining to credit.

The most recent study in the consumer education literature pertaining to teachers was a study conducted in Kenya. Lytton, Garman, and Machooka (1984) conducted a survey of prospective extension workers attending a three-year agricultural training college in Kenya to determine their potential for functioning also as consumer educators in rural communities in Kenya. The college offered training in a variety of disciplines related primarily to agriculture and home economics. A course in consumer education, however, was offered mainly to those trainees enrolled in home
economics, and dairy and food technology programs. The specific objective of the study was to assess the level of consumer education knowledge and the related attitudes of trainees enrolled at the training institution.

A 54-item instrument was developed to collect data on trainees' consumer education knowledge and attitudes, including three questions to assess their awareness of consumer protection laws in Kenya. The knowledge component was measured by a 47-item test in structured response format. Twenty-two items required true/false responses, whereas 25 items were multiple-choice type. Attitude, on the other hand, was measured using seven items designed in a 4-point Likert-type scale format.

Content aspects of the consumer education course taught at the college formed the basis for the items on the questionnaire. Such content areas included consumer rights and responsibilities, budgeting, intelligent buying, advertisements, banking and insurance, credit, consumer laws in Kenya, and the consumer's role in the economy. The questionnaire was validated for appropriateness of content by Kenyans as well as evaluation experts from the United States, pilot-tested with 50 students attending Egerton College in Kenya, and revised before use in data collection for the study. The research report included no further information, however, indicating the statistical reliability of the instrument.

All persons enrolled at the training institution at the time of the study were included in the sample (N=713). Because 50 such individuals were involved in the pilot test, the available sample size was reduced to 663. Data were obtained from 508 trainees, the majority being male. The
data were analyzed using analysis of variance procedures to determine differences between trainees' knowledge scores and certain descriptive variables; chi-square procedure to determine relationships between attitude scores and demographic variables. The mean score on the 47-item test was 31.3 (67.9% correct), indicating that trainees enrolled at the college generally had a moderate level of consumer education knowledge.

The results indicated that prior completion of a consumer education course was significantly associated with higher scores on the knowledge and attitude instrument. Trainees enrolled in the two programs which offered a course in consumer education (i.e., Dairy and Food Science Technology and Home Economics) obtained higher mean scores on the test than other trainees. The findings also indicated that although participants strongly supported attitudes expected of rational and responsible consumers, their general knowledge of consumer protection laws existing in the country was less than optimal. Whatever knowledge of consumer legislation they had was obtained through newspapers and radio.

In addition, the findings revealed that although respondents' gender, previous work experience, and rural or urban upbringing were not in any way related to their consumer education knowledge, these variables appeared to be significant contributors to differences in consumer attitudes expressed. On the basis of the findings, the researchers concluded that if all trainees were required to take a consumer education course while enrolled in the college, their level of consumer education knowledge was likely to improve, and that upon graduation they would be
better equipped to function as consumer educators to rural families in Kenya.

The three studies discussed above in this section focused specifically on teachers. The next study to be reviewed did not pertain specifically to teachers, but rather to teachers and their students. It is included here because of its relevance to the subject at hand.

In a city-wide survey conducted in the District of Columbia, McElrath (1980) looked at whether inner-city senior high school teachers' perceptions regarding students' needs for consumer education were different from students' perceptions of their own needs for consumer education. The specific purposes of the study were: (a) to determine what senior high school students perceived as their needs for consumer education course content, (b) to analyze the relationships between students' perceived needs for consumer education and selected demographic variables, (c) to determine relationships between teachers' perceptions and students' perceptions regarding students' needs for consumer education course content in senior high schools, and (d) to use the findings as the basis for making curriculum decisions.

Two questionnaires, one for students and another for teachers, were developed for this study. The student questionnaire was developed in three parts to obtain background information on students and their parents, as well as students' interest in learning about specific consumer education concepts. Part I contained 20 items requesting background information; Part II requested information from students about their parent's occupation. This section contained a list of 77 occupations and
asked students to check or write in a response. Space was provided for students to write in additional occupations not listed. Part III was the Consumer Education Interest Inventory and contained 30 items. Students were requested to indicate on a 5-point Likert-type scale their interest in learning about specific consumer education concepts. They were also to list five additional topics and rate these similarly. The rating scale was divided as follows: "1" indicated "No Interest," "2" indicated "Little Interest," "3" indicated "Some Interest," "4" indicated "Much Interest," and "5" indicated "Very Much Interest."

The Teachers' Consumer Education Survey was identical in content and format to Part III of the students' questionnaire. Teachers, however, were requested to indicate their opinion of the importance of concepts for inclusion in a consumer education course. For this group of respondents, the 5-point rating scale was similarly described in terms of importance. The 25 concepts were derived from textbooks and curriculum guides. In order to insure that all respondents interpreted the statements similarly, each concept was delineated into three subtopics.

The questionnaire was validated and pilot-tested before use. Content validity was established by a panel of 10 specialists in home economics and consumer education. The instrument was pilot-tested for usability with a group of 30 students similar to the population to be studied, and those who participated in the pilot testing were not included in the final data collection.

The sample for the study consisted of all senior high school students attending public schools in the District of Columbia and who were assigned
to homerooms supervised by home economics teachers. Of the 34 home economics teachers identified as homeroom supervisors, 21 administered the questionnaires to their homeroom students. These teachers were also asked to complete the questionnaire specially designed to obtain their opinion regarding the importance of selected consumer education concepts for students. Nineteen questionnaires were completed and returned by teachers.

Usable data were obtained from 438 students and 19 teachers. Data were analyzed using descriptive statistics, one-way analysis of variance, multiple contrasts, and two-tailed t-test. Frequencies, percentages, and means were calculated for responses to each of the variables and used to describe respondents' characteristics. One-way analysis of variance was used to determine differences in responses between students in the three grade levels. This study used multiple contrasts as a follow-up analysis technique to identify where significant differences occurred between the grade levels.

Analysis of the data pertaining to teachers indicated that significant differences existed between teachers' and students' perceptions regarding students' need for consumer education. Teachers consistently rated 18 of the 25 consumer education concepts as more important for students to learn than did the students themselves. Only six concepts were rated relatively high in importance by students. These included: plan, select, and care for personal clothing; explain how the economy influences prices; determine family's housing needs; explore consumer education jobs and careers; use advertising effectively; examine
and clarify values and goals. On the basis of this finding, the researcher noted that the implication for education was that input from high school students appeared to be important in planning and selecting consumer education content of relevance to students because students' interests differed from what teachers considered important for them to learn.

Studies pertaining to other adults

Apart from the college population, several studies on various aspects of consumer education involving adults as subjects can be found in the early literature. In the current literature, however, studies pertaining to consumer education of adult audiences were surprisingly few, and studies that have looked at consumer education knowledge, attitudes, and experiences of parents as a group of adults were nonexistent. Two studies pertaining to adults, and which bear relevance to the importance of consumer education for parents as a specific group of adults, will be reviewed in this section.

Dannison (1975) conducted a study to determine adult learners' attitudes toward consumer education in Adult Basic Education programs in Kansas. The study was designed specifically to survey and categorize the attitude of a sample of adult learners toward selected consumer education instructional objectives in existing adult education programs.

Three instruments were put together to form a single 78-item questionnaire consisting of three parts. Two instruments were developed by the researcher, whereas the third was an already published instrument used with permission of the publisher. The first instrument sought
specific demographic and experience information pertaining to age, gender, employment and marital status, presence of children in the home, and ages of children; breadwinning responsibility, responsibility for paying bills, and budgeting experience. This instrument contained 32 items arranged in a multiple-choice format, and formed Part I of the questionnaire.

The second instrument was an attitude measure designed by the researcher to assess individuals’ general attitude toward selected consumer education objectives. The objectives were adapted from the consumer economics section of an existing study and selected on the basis of their inherent reference to consumer money matters and spending issues. Items pertained to such topics as budgeting, insurance, credit, and banking. The instrument contained 26 items. Each item was measured on a 5-point Likert-type scale of agreement-disagreement and formed Part II of the questionnaire. The demographic and attitude instruments were both validated by three faculty members with expertise in test construction and pretested using 20 college students in a family economics class.

The third instrument was a short form of the Rokeach Dogmatism Scale which assessed adult learners’ predisposition to be open-minded or closed-minded (i.e., their willingness to respond to statements or ideas according to their belief systems). This instrument contained 20 items and had an established split-half reliability coefficient of .80.

Each section of the three-part questionnaire contained separate instructions and was printed on different colored paper for ease of identification. The questionnaire was pilot-tested using 23 adults from an adult education program. Item analysis on the attitude measure
indicated that the corrected split-half reliability coefficient calculated from the pilot sample data was .95.

The population for the study included all adults in adult education classes offered by Adult Basic Education programs which were receiving state or federal funding under the Adult Education Act within the state of Kansas. A random sample of 10 programs was selected from the 38 programs in the state. All participants in the programs selected were included in the sample.

Questionnaires were administered on program sites by field personnel with whom the investigator made prior telephone contacts. Instructions for administration of the instrument were forwarded, together with the instruments, to all field personnel. Completed questionnaires were returned by mail or collected personally by the investigator.

Demographic data were analyzed using frequencies and cross-tabulations. Data from the attitude measure and the Dogmatism Scale were analyzed using Pearson product-moment correlation and analysis of variance with Scheffe' Multiple Range test for pairwise comparisons. The findings of the investigation disclosed that adults who had experiences with financial institutions, who were knowledgeable of local financial institutions, or who had purchased several types of insurance, had significantly more favorable attitudes toward consumer education than other adults. Those adults who had experiences with financial institutions and with purchasing insurance also tended to be significantly more open-minded than individuals with very limited or no such experiences. No significant differences were found between adult
learners' attitudes toward consumer education on the basis of gender, employment status, breadwinning responsibility, responsibility for paying bills, or responsibility for budgeting family financial resources. The adult's age and marital status, however, were identified as characteristics demonstrating significant differences in attitudes toward consumer education. Further delineation of these characteristics was not obtainable from the statistical procedures used.

Dickinson (1981/1982) used a sample of 200 adults from 11 pre-existing adult groups in northern California and conducted a two-stage study to assess adults' consumer awareness. The specific purpose of the study was to develop a valid and reliable instrument to measure the consumer awareness of adults. Consumer awareness was defined for this study as knowledge of available product and service information, knowledge of existing consumer protection laws, and knowledge of possible channels of recourse.

The researcher reported that the study was a two-stage process involving (a) test development and (b) construct validation. The instrument developed as the first stage of the study included 28 mini-case studies requiring 84 responses. Each case was based on one or more of the 30 consumer problems identified by a national panel of 15 consumer educators and consumer advocates as being most troublesome to consumers during that period. For each case study, respondents were required to (a) list sources of product/service information, (b) explain how consumers were protected by law, and (c) identify channels of consumer recourse for each problem situation.
The test development aspect of the study involved 32 respondents from a pre-existing adult group. The construct validation aspect involved 168 adults from 10 other adult groups. Groups were selected on the basis of instructors' willingness to provide time for participants to take the test as a group. Fatigue and hostility were reported by the group of 32 participants; therefore, efforts were made to reduce the length of the test.

Using multiple matrix sampling, four subtests, each containing seven mini-cases and requiring 21 responses, were formed. Multiple matrix sampling was conducted with 32 college students enrolled in a consumer studies class. Statistical analysis indicated no difference between mean scores on the large test and estimated mean scores on the subtests. Data from the multiple matrix sampling indicated that the test had an internal consistency reliability coefficient of .95, using a method which approximated coefficient alpha. Two alternate forms of the subtests were also administered to a group of college students in a biology class to provide estimate of test-retest reliability. The Pearson product-moment correlation coefficient in this instance was .73. Both reliability estimates were considered strong enough evidence of the instrument's reliability. The instrument was then considered appropriate for the second stage of the study.

What the author outlined as the construct validation stage of the study was in fact an effort to provide evidence of relationships between scores on the test of consumer awareness and certain socioeconomic factors identified in the literature as contributing to adults' consumer
awareness. The socioeconomic factors studied were level of education attained, level of annual income, occupation, marital status, length of time married, current labor force attachment of women, population density of place of residence, and consumer education course taken.

Analysis of variance was used to determine differences in consumer awareness scores of participants categorized into subgroups on each of the socioeconomic factors. Results indicated that adults in the sample had a very low level of consumer awareness, but that more aware consumers were found to be women who had taken a consumer education course, had completed a master's degree, were currently in the labor force, or lived in a large urban community close to other cities in a major metropolitan area.

On the basis of the findings, the researcher suggested that additional research should be conducted to investigate the relationship between adults' attitude toward consumer problems and their consumer awareness. It was further suggested that the interrelationships among adults' consumer awareness, their attitude toward consumer problems, and their patterns of consumer behavior should be studied in order to help researchers and educators plan, implement, and evaluate consumer education programs intended to increase adults' consumer awareness.

In summary, this section was directed toward examining current literature available on consumer education knowledge, attitude, or experiences of students, teachers, and parents. The literature search was focused on studies which included any of the three groups of subjects individually, and on any of the three consumer education constructs. This avoided missing any studies which might concern all three groups.
collectively while unmentioned in the title of the report. The literature, therefore, was viewed from different standpoints: (a) studies pertaining to any of the three consumer education components and (b) studies pertaining to any of the three groups of subjects in any combination of components and subjects.

Copious studies were identified for each of the three consumer education components, but pertaining typically to one and sometimes two of the three groups of subjects under review. Studies on the cognitive and affective aspects of consumer education for high school and college students were abundant. Very few studies on these aspects pertinent to teachers were available. Only two studies were found to focus on subjects' consumer education experiences. Current cognitive and attitudinal studies on consumer education competencies of parents were nonexistent, therefore, two studies on consumer education components of adults were reported because of their relevance to parents. No single study was found to investigate all three consumer education components among all three groups of subjects at one and the same time.

Various studies dealt with the impact of consumer education on subjects' knowledge, attitude, or behavior, and six such studies pertinent to secondary students were reviewed. The review also included three studies pertaining to teachers and two with relevance to parents. Although the majority of very early studies appeared to support the notion that consumer education had no impact on participants' consumer education competencies, a large number of current studies indicated that consumer education had positive impact.
Variables Influencing Consumer Education Knowledge, Attitude, and Experiences

Apart from assessing consumer education knowledge, attitude, and behavioral aspects of subjects, several studies have attempted to identify the significance of a wide range of selected demographic and socioeconomic variables on such competencies. Divergent results have been reported. This section focuses on a discussion of findings of current studies that have attempted to identify factors which might influence the various components of consumer education competency of high school students, teachers, and adult audiences. Except where pertinent, no attempt will be made to provide any in-depth discussion on methodology.

Some studies identified students' sex, age, grade, and socioeconomic status as factors influencing their cognitive and affective levels of consumer education. Seymour (1975), for example, evaluated the consumer education knowledge of secondary students attending public high schools in Colorado. He not only found significant differences in students' scores on the basis of sex and age, but also on their level of scholastic achievement. Senior students achieved a higher mean score than other students; male students had significantly higher scores than female students, and high achievers outperformed low achievers on the test of consumer education knowledge.

In addition, students who had completed a formal course in consumer education were found to score significantly higher than students who had not completed such a course. The literature provided many evidences of this finding for students' consumer education knowledge (Harder, 1979; Langrehr & Mason, 1978; Stanley, 1977) and attitude (Crawford & Hughes,
Apart from a specific course in consumer education, enrollment in a home economics course was also found to contribute to students' consumer education need perceptions. McElrath (1980), for example, found that students who had taken or were taking a home economics course perceived a greater need for consumer education content than students who had not taken or were not taking a home economics course.

In conducting an analysis of the consumer competencies of 12th grade students in selected public schools in Georgia, Maupin (1978) also tried to determine the extent to which students' money management experience and certain demographic variables were related to their development of consumer competencies. Six major areas of consumer competencies were examined. These pertained to financial planning, purchasing, borrowing, protecting, investing and saving, and sharing. The specific demographic variables looked at were students' sex, socioeconomic status, and school size.

The results disclosed that students' performance on the knowledge test appeared to be directly related to their socioeconomic status and money management experience. The higher the socioeconomic status of the student and the more money management experience the student had, the higher the score the student gained on the test. In this study, however, no difference in scores was observed on the basis of sex. Both males and females performed equally.

A few studies identified students' grade level as contributing to their perceived needs for consumer education (Garman & Gummerson, 1977; McElrath, 1980). Garman and Gummerson (1977), for example, sought to
determine students' perceptions of the importance of consumer education topics to them. The sample included high school sophomores, juniors, and seniors who were enrolled in an 18-week course in consumer education. After the course had been completed, students were asked to rank the order of importance of 23 topics which they had studied. Topics were ranked on a 5-point scale from "Not Important" to "Essential." The results indicated that students in the upper grade levels ranked the topics which dealt with values, goals, and choices as more valuable to them than students in the lower grade levels.

From the foregoing, it might appear that grade level has some influence on the attitudinal component of consumer education for students. The opposite result, however, was found for the cognitive consumer education component of students. Stanley (1977), for example, assessed the consumer education knowledge of Illinois students by testing 7,683 high school students before and after instruction in consumer education. It was found that there was no significant difference in students' progress from one grade level to another. Students in upper grade levels did not receive higher increases in total test scores than students in lower grade levels.

Although studies pertaining specifically to the consumer education competencies of teachers and other adult groups were relatively few in the current literature, researchers have also tried to determine what variables influenced such competencies. Evidence has been provided on the positive impact of a consumer education course on the related competencies of these two groups of audiences (Dickinson, 1981/1982; Garman, 1979;
Lytton et al., 1984; Moser, 1981). Additional demographic and socioeconomic variables have also been examined.

Moser (1981), for example, sought to examine whether college students' age, sex, work experience, and academic major had any influence on their consumer education knowledge specific to personal finance. Data from 513 respondents revealed that there was a significant difference between college students' test scores and their age, work experience, and academic major. Respondents' sex, however, had no statistical relationship to their knowledge of personal finance.

In a study conducted in Kenya, academic major was also found to influence prospective teachers' consumer education knowledge in such content areas as consumer rights and responsibilities, advertisements, intellectual buying, consumer protection laws, and personal finance (Lytton et al., 1984). This study, which was reviewed more thoroughly in the previous section, also found that whereas prospective teachers' gender, residential location, and previous work experience appeared to have no relationship to their consumer education knowledge, these three variables appeared to foster a positive attitude toward consumer education (Lytton et al., 1984).

An earlier study was conducted by Lytton and Garman (1983) to ascertain the knowledge, opinions, and related behaviors of potential consumer educators concerning consumer rights and responsibilities. The researchers also looked at the relationships of these components to respondents' sex, level of education, age, and income level. This study, however, did not assess whether or not participants had exposure to a
consumer education course on the area examined. There appeared to be statistically significant relationships between respondents' knowledge of consumer rights and responsibilities and their sex, level of education, and income level. Males scored higher than females. Potential consumer educators with higher levels of education and those in high income brackets had higher scores than those with lower levels of education, and those in lower income categories, respectively. Level of education as a contributing factor to adults' consumer education knowledge was also identified in a consumer awareness study by Dickinson (1981/1982).

Another study pertaining to adults examined different variables. Braun (1979) examined the extent to which relationships existed between adult women's consumer economic knowledge and their age group, residence, and type of program. The sample was taken from a population of women 55 years of age and older and participating in Extension Homemakers and Senior Citizen Centers.

The data indicated an inverse relationship between consumer economic knowledge of this group of participants and their age group. Women in the younger (55-64 years old) age group category had higher scores on the test than those in the older (65-99 years old) age group category. The researcher noted that one might conclude that younger adult women possessed higher levels of consumer economic knowledge than their older counterpart, but that caution was necessary for such a conclusion because of certain concerns relating to participants' ability to read and respond to the instrument. It was recommended, however, that additional variables including years of schooling, income level, and marital status should be
analyzed more thoroughly when assessing the consumer economic knowledge of older women.

The literature reviewed for this section focused on demographic and other variables which were reported as contributing to high school students', teachers' and other adults' cognitive and affective aspects of consumer education. High school and college populations appeared to be the popular target groups for such studies. Because teachers are a product of the college population, and studies specific to practicing teachers were relatively few, literature pertaining to college students was reviewed to provide background information on variables contributing to the consumer education competency of teachers. In addition, because such studies using parents as subjects were nonexistent, studies which pertained to other adult audiences were surveyed for their relevance to background information on the consumer competency of parents.

Researchers have investigated a wide range of variables which might contribute to the consumer education competency of these three groups of subjects. Results have been conflicting for various factors. Significant differences were observed for all three groups of audiences between their consumer education competency and the following variables: completion of a consumer education-related course, level of education, and age. Studies specific to high school students found that students' sex and socioeconomic status appeared to have significant influence on their consumer education competencies. Results for grade level, however, have been conflicting. Other variables found to contribute to students' competencies in this area were enrollment in a home economics course
specifically, as opposed to an economics course, level of scholastic achievement, students' earning capacity, and their money management experience.

Whereas high school students' gender appeared to be a significant contributor to both their consumer education knowledge and attitudes, teachers' gender appeared to be significant only in relation to their consumer education attitude. In addition, residential location and previous work experience were also found to make a significant contribution to prospective teachers' attitudes. Academic level was not found to make any significant difference in either the cognitive or affective aspect for this particular group of subjects. Significant differences were found, nonetheless, between teachers' consumer education knowledge and their academic major, as well as their level of income.

Apart from age, education level attained, and whether or not adults had taken a consumer education course, residential location and current labor force participation were among the variables identified as contributing significantly to the consumer education competency of adult women. Although these studies did not in any way indicate whether subjects in the sample were parents, these factors found to have some relationship to women's consumer education competencies might have some relevance to parents.
SECTION I.

CONSUMER EDUCATION COMPETENCIES OF HIGH SCHOOL STUDENTS, TEACHERS, AND PARENTS IN TRINIDAD AND TOBAGO
CONSUMER EDUCATION COMPETENCIES OF HIGH SCHOOL STUDENTS, TEACHERS, AND PARENTS IN TRINIDAD AND TOBAGO

Authors: Theodora E. Alexander
Research Assistant
Home Economics Education
Iowa State University
Ames, Iowa 50011

Ruth P. Hughes, Distinguished Professor
Head, Home Economics Education
Iowa State University
Ames, Iowa 50011

Galley proof to: Ruth P. Hughes, Distinguished Professor
Head, Home Economics Education
Iowa State University
Ames, Iowa 50011

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ABSTRACT

The purpose of this study was to examine consumer education knowledge, attitude, and experiences of home economics students in senior comprehensive high schools in Trinidad and Tobago, home economics teachers in such schools, and students' parents/guardians. Usable data were obtained by questionnaires from 413 students, 22 teachers, and 285 parents. A total knowledge score was calculated for respondents in each subgroup. Factor analysis was conducted for attitude items; Cronbach's alpha reliabilities and factor scores were computed. Experiences were analyzed by individual item response using frequencies and percentages. Differences in knowledge, attitude, and experiences were determined by one-way analysis of variance. Findings indicate that teachers and parents have significantly higher scores than students on knowledge and attitude concepts. Attitudes are generally positive, but knowledge levels are considered generally low. Parents tend to have experiences in many more areas than teachers and students, the latter appearing to lack basic experiences.
STATEMENT OF PURPOSE AND RATIONALE

Many people in modern societies believe that a nation's educational system should assume major responsibility for its citizens becoming functional members of the society. In Trinidad and Tobago, the major responsibility for education of the populace rests with the government. In an effort to meet the challenges of a growing nation and an expanding and changing economy, government's efforts to provide basic education for citizens have gradually expanded over the years. Very little provision has been made, however, for educating citizens for their role as efficient consumers within the economy.

While there has been copious consumer education research conducted in North America, no such research exists for Trinidad and Tobago. It is the opinion of this researcher that education personnel are in need of research-based data for effective curriculum decisions. This study, the first of its kind on the topic for Trinidad and Tobago, would provide curriculum planners with empirical data which can be used as the basis for expanding the scope of home economics curricula in secondary schools in general, but senior comprehensive secondary schools in particular.

Because home economics teachers would be required to teach consumer education concepts if incorporated in home economics curricula, a survey of such teachers' competencies in consumer education would help identify the need for preparing them for this educational task. According to socialization theory, parents are among the chief socialization agents from whom adolescents learn their consumer skills. Data pertaining specifically to the consumer education competencies of students' parents
might prove useful for education administrators with responsibility for planning adult/continuing education programs to meet the needs of adult audiences in their various communities in Trinidad and Tobago.

The primary purpose of this study, therefore, was to examine the consumer education knowledge, attitude, and experiences of senior high school home economics students, their home economics teachers, and parents in Trinidad and Tobago.
METHODOLOGY

Sample

The sample was selected to include three groups of subjects: all students enrolled in home economics classes in senior comprehensive high schools; all home economics teachers in the senior comprehensive high schools selected; one parent or guardian of each student in the selected sample. A stratified random sample of seven of the 19 senior comprehensive high schools in Trinidad and Tobago was selected. Stratification was based on geographical regions.

All home economics students and their home economics teachers who were available at the schools on the data collection dates were invited to participate in the study. The sample size of parents was a function of the available student sample. The sample of teachers was small because only 35 home economics teachers were employed in the seven schools selected, and 12 were absent on the data collection days. Teachers who were absent, nonetheless, were also invited to participate in the study.

The invited sample totaled 861, which included 413 students, 413 parents, and 35 teachers. The researcher considered the sample representative of the population because respondents represented large and small schools, urban and rural communities, and the seven educational divisions in the country.

Student characteristics

Ninety-one percent of the students were between 14 and 16 years old, the average age being 15 years. Slightly more than half (52%) were in the
12th grade, and 48% in the 11th grade. Females made up a large proportion (91%) of the sample and only 9% (n=35) were males. Fifty-seven percent lived in rural areas, 18% lived in urban areas, and 25% in suburban areas. Slightly more than half (52%) received less than $40 (T.T) spending money monthly, and 75% received most of their spending money from their parents. On the average, students received $40-$60 ($11-17 U.S.) spending money monthly.

**Parent characteristics**

Eighty percent of the parent sample were females and 20% were males. The majority (89%) were between 25 and 54 years old, the average age category being 35-44 years. A large proportion (65%) lived in rural areas, 11% in urban areas, and 24% in suburban areas. Elementary education was the highest level of education attained by most parents (62%); 22% had high school, and 14% had some form of education beyond high school. Eighteen percent of the families had monthly income below $500 ($139 U.S.); 31% had monthly income between $500 and $1,000; 7% had monthly income above $3,500 ($972 U.S.). The average monthly income category was $1,000-$2,000. Twenty-one percent of family breadwinners were unemployed, and slightly over one-third (38%) were employed in occupations classified as production workers. More than two-thirds (70%) of the families had between two and seven children, and 16% had more than seven children. The average number of children per family was in the 5-7 category.
Teacher characteristics

Among the 22 teachers, 82% (n=18) were females, and 18% (n=4) were males. Ninety percent (n=20) were between 25 and 54 years old, the average age category being 35-44 years. More than half (54%) lived in suburban areas, 32% lived in rural areas, and 14% in urban areas. Half (50%) had a teachers' college diploma as their highest academic qualification, 27% (n=6) were graduates of a technical institute, 9% (n=2) had a bachelor's degree, another 9% had the City and Guilds of London Institute qualification, and one had a master's degree. The majority (68%) had monthly income over $3,500 ($972 U.S.); 22% were in the $3,000-$3,500 income category, and 10% earned between $1,000 and $2,000 monthly. The average monthly income category, however, was $3,000-$3,500.

In Trinidad and Tobago, many who are currently teaching home economics have previously taught other subjects. Of the 22 teachers in the sample, 17 (78%) have had between five and 30 years of experience as teachers, generally; two (9%) had been teaching for more than 30 years, and three (13%) had been teaching for less than five years. In terms of total years of experience as teachers, the average was in the 15-20 year category.

In relation to years of teaching experience specific to home economics, 19 (86%) had been teaching home economics between five and 30 years, and three (13%) had been teaching the subject for less than five years. On the average, teachers in this sample had been teaching home economics between 10 and 15 years.
Instrumentation

A four-part instrument was designed to assess respondents' knowledge of consumer education concepts, their attitude toward these concepts, and experiences in these concept areas. The fourth section was for background information on participants' characteristics.

The instrument contained 80 items which assessed consumer education competencies in seven major content areas. The content areas were identified in the *Guide for Teaching Management and Consumer Education* (Iowa State University, 1977). Concepts included (a) values and ethics underlying education for consumption, (b) consumption: an expression of lifestyle, (c) consumer decision making, (d) consumer information: location, evaluation, and processing, (e) change and the consumer, (f) consumer and the economic environment, and (g) consumer rights and responsibilities.

A carefully constructed table of specifications formed the basis for the development of the instrument. Items were reviewed for content validity and appropriateness by experts in consumer education and evaluation. Questionnaires were pilot-tested with similar audiences in Trinidad and Tobago for clarity, comprehensiveness, and usability.

The knowledge test contained 39 multiple-choice items adapted from a test developed by Harder (1979). Items for the attitude inventory were adapted from an attitude scale developed by Crawford (1980). The inventory included 16 items eliciting participants' responses on a 9-point Likert-type scale. Points on the scale ranged from "Strongly Disagree" (1) to "Strongly Agree" (9). Eighteen items with differing response
format assessed respondents' experiences in six of the seven content areas in the table of specifications. Items were also adapted from the Crawford study. Supplementary items were formulated by the researcher to assess experiences pertinent to Trinidad and Tobago. Seven items, designed specifically for each group of respondents, sought information on subjects' characteristics. Among the variables included were: sex, age, level of education, residential location, income/spending money, occupation, number of children in the family, and years of home economics teaching.

Data Collection

Questionnaires were administered by the researcher to all available students and home economics teachers in their classrooms. Questionnaires were also left at the schools to be completed by those home economics teachers who were unavailable on the data collection days. Students who responded to the questionnaire were given a similar copy to take home to their parents/guardians. Only one parent/guardian in each family was requested to respond and to return the completed instrument within two days to the home economics teacher at the school. Except for two geographically remote areas, all questionnaires were collected by the researcher. Principals/Vice principals in the other schools volunteered to return questionnaires to their School Supervisors at the district Education Office.

Of the 861 questionnaires distributed (413 to students, 413 to parents, and 35 to teachers), data were collected from 726 respondents. The responding sample included 413 students (100%), 290 (70%) of the
parents, and 23 (66%) of the 35 teachers. All responses were recorded on NCS-10 computerized answer sheets. Usable data were obtained from all students (N=413), 285 parents, and 22 teachers.
DATA ANALYSIS AND FINDINGS

Data were analyzed for each group of respondents and each component separately. Statistical procedures from the Statistical Package for the Social Sciences (SPSSx version) were used. A 0.05 level of significance was set for the study. Frequency counts and percentages were computed for the items in the background information section of the questionnaire.

Knowledge Test

An item analysis was conducted on the knowledge items, and a total knowledge score was obtained for each respondent. The range of scores was as follows: students, 3 to 30; parents, 8 to 32; and teachers, 22 to 35. The possible range of raw scores was 0 to 39. Mean scores on the test were 16.17, 19.33, and 27.82 with standard deviations of 4.66, 4.93, and 3.98 for students, parents, and teachers, respectively. The test had mean difficulty indices of 41%, 50%, and 71%; mean discrimination indices of .25, .28, and .26; standard error of 2.88, 2.87, and 2.44; KR-20 reliabilities of .62, .66, and .61 for students, parents, and teachers, respectively.

Differences in Knowledge

One-way analysis of variance was used to test the hypothesis that there were no significant differences in average consumer education knowledge scores among the three groups of respondents. This hypothesis was rejected at the .001 level of significance \[F (2, 717)=87.79, p<0.001\]. Additional analysis using the Scheffe' Multiple Range test revealed that highly significant differences existed between students' and
parents', between students' and teachers', and between parents' and teachers' knowledge of consumer education (see Table 1).

Attitude Inventory

Factor analysis was used to form composite indices from the responses to the 16 attitudinal statements. Factoring with iterations was carried out with the squared multiple correlations as the initial communality estimates. Factors were extracted using Principal Axis Factoring, and rotated using Varimax procedure. An initial consideration for the selection of relative factor loadings was made at 0.40. Upon further

Table 1. Means, standard deviations, and F-ratios for knowledge of consumer education and attitude factor scores of students, parents, and teachers

<table>
<thead>
<tr>
<th></th>
<th>Students (N=413)</th>
<th>Parents (N=413)</th>
<th>Teachers (N=22)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>s</td>
<td>X</td>
<td>s</td>
</tr>
<tr>
<td>Consumer education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>knowledge scores</td>
<td>16.17 4.66</td>
<td>19.33 4.93</td>
<td>27.82 3.98</td>
<td>87.79***</td>
</tr>
</tbody>
</table>
| Attitude factor scoresa
| Consumer and the     |                 |                 |                |         |
| marketplace          | 5.28 0.96       | 5.49 0.94       | 5.99 0.78      | 8.18*** |
| Consumer and the     |                 |                 |                |         |
| resource management  | 6.59 1.27       | 6.76 1.38       | 7.93 1.35      | 10.94***|
| Consumer and the     |                 |                 |                |         |
| societal environment | 4.02 2.19       | 4.84 2.28       | 6.80 1.80      | 24.60***|

aPossible range of mean scores is 1 to 9, with 1 indicating strong disagreement and 9 indicating strong agreement.

***Significant at p<.001.
consideration, however, items with factor loadings between 0.30 and 0.40 were included in a factor if such items appeared to load uniquely, and were closely related to the content measured by the other items loading high on a factor.

Factor analysis provided three factors (subscales) with eigenvalues greater than 1.00. The three factors varied in size from seven to two items, and accounted for almost 40% of the total variance. Factors were labeled according to the attitudes they appeared to reflect and were designated by the researcher as (a) consumer and the marketplace, (b) consumer and resource management, and (c) consumer and the societal environment. Factor scores were used to compute Cronbach's alpha reliability for each attitude subscale for the total group and each subgroup of respondents. Table 2 presents a summary of reliability coefficients for the three factors by total group and subgroups. The researcher considered these coefficients sufficiently high for the purpose of the study.

Using the composite approach, a mean score for each scale was computed by summing the score on each of the statements in the scale and dividing by the number of statements in the scale. Statements worded negatively were first recoded to reverse the scoring. Scores below 5.00 indicated unfavorable attitude. Scores above 5.00 indicated favorable attitude. Table 1 presents a summary of the results. Mean factor scores for subgroups are: students, 5.28, 6.59, 4.02; parents, 5.49, 6.76, 4.84; teachers, 5.99, 7.93, 6.80 for factors 1, 2, and 3, respectively.
Table 2. Reliability coefficients on factors representing attitude toward consumer education

<table>
<thead>
<tr>
<th>Attitude factors</th>
<th>No. of group items</th>
<th>Total 7</th>
<th>Students (391)</th>
<th>Parents (265)</th>
<th>Teachers (20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer and the marketplace</td>
<td>7</td>
<td>0.71</td>
<td>0.72</td>
<td>0.66</td>
<td>0.50</td>
</tr>
<tr>
<td>Consumer and resource management</td>
<td>7</td>
<td>0.61</td>
<td>0.56</td>
<td>0.63</td>
<td>0.82</td>
</tr>
<tr>
<td>Consumer and societal environment</td>
<td>2</td>
<td>0.56</td>
<td>0.52</td>
<td>0.54</td>
<td>0.50</td>
</tr>
</tbody>
</table>

aNumbers in parentheses indicate the number of subjects used to compute Cronbach's alpha reliability.

Differences in Attitude

Composite scores were used in one-way analysis of variance to test the hypotheses that there were no significant differences in average attitude scores on each subscale among the three groups of respondents. The hypotheses were rejected at the .001 level of significance. All three subscales yielded highly significant differences in average attitude scores between the three groups of respondents. Home economics teachers consistently scored higher than parents and students.

On the subscale representing "consumer and the marketplace" (Factor 1), the hypothesis was rejected at the .001 level of significance [F (2, 689)=8.18, p<0.001]. Scheffe's Multiple Range test revealed that the higher scores of parents and teachers differed significantly from students (see Table 1).
On the subscale representing attitudes about the "consumer and resource management" (Factor 2), the hypothesis was also rejected at the .001 level of significance \( F (2, 700)=10.94, p<0.001 \). In this instance, the higher score of teachers differed significantly from students and parents.

For attitude pertaining to the "consumer and the societal environment" (Factor 3), the hypothesis was rejected at the .001 level of significance \( F (2, 713)=24.60, p<0.001 \). Significant differences occurred between students and parents, students and teachers, and parents and teachers. Examination of Table 1 indicates that teachers again scored higher on this subscale than students and parents. Parents, however, had a higher mean score than students. The researcher did expect the adult groups to attain higher scores than the student group; therefore, these results are not particularly surprising.

Experiences in Consumer Education

Frequencies and percentages were computed for all items in the experiences section of the questionnaire. In addition, 11 of the 18 items (those with continuous data) were analyzed by individual item response to determine differences in experiences between subgroups. One-way analysis of variance was used to test the hypotheses that there were no significant differences in experience among the three groups of respondents on individual items. Statistically significant differences were found for seven of the 11 selected experiences examined (see Table 3). The data also indicated wide variability in the responses, particularly among students.
Table 3. Means, standard deviations, and F-ratios for scores on selected consumer education experiences of students, parents, and teachers

<table>
<thead>
<tr>
<th>Experiences</th>
<th>Students (N=413)</th>
<th>Parents (N=285)</th>
<th>Teachers (N=22)</th>
<th>F- ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider values and goals</td>
<td>1.36 0.67</td>
<td>1.54 0.60</td>
<td>1.50 0.51</td>
<td>7.25***</td>
</tr>
<tr>
<td>Make spending plans</td>
<td>1.66 0.71</td>
<td>1.84 0.50</td>
<td>1.86 0.47</td>
<td>7.59***</td>
</tr>
<tr>
<td>Make price-quality comparisons</td>
<td>1.45 0.61</td>
<td>1.57 0.57</td>
<td>1.64 0.49</td>
<td>4.14*</td>
</tr>
<tr>
<td>Plan ahead</td>
<td>1.35 0.62</td>
<td>1.59 0.54</td>
<td>1.55 0.51</td>
<td>13.60***</td>
</tr>
<tr>
<td>Report unfair business practices</td>
<td>0.32 0.61</td>
<td>0.24 0.55</td>
<td>0.05 0.21</td>
<td>3.39*</td>
</tr>
<tr>
<td>Consider total cost of credit</td>
<td>0.90 0.73</td>
<td>1.36 0.72</td>
<td>1.41 0.73</td>
<td>36.16***</td>
</tr>
<tr>
<td>Make purchases on credit</td>
<td>0.76 0.94</td>
<td>1.17 0.90</td>
<td>0.55 0.86</td>
<td>18.89***</td>
</tr>
</tbody>
</table>

*Significant at p<.05.

***Significant at p<.001.

Highly significant differences existed between parents' and students' responses to the frequency with which they (a) "consider values and goals when deciding to spend money" [F (2, 715)=7.25, p<0.001]; (b) "make some kind of spending plan/budget" [F (2, 716)=7.59, p<0.001]; (c) "make price-quality comparisons" [F (2, 716)=4.14, p<0.05]; and (d) "plan ahead for important items" [F (2, 713)=13.60, p<0.0001].
The higher mean score of students differed significantly from teachers \( F(2, 709) = 3.39, p \leq 0.05 \) on their responses to the frequency with which they "report unfair business practices." In response to their experience in "considering the total cost of credit," highly significant differences \( F(2, 711) = 36.16, p \leq 0.0001 \) were found between students and parents, and between students and teachers. Parents and teachers had significantly higher mean scores on this item than students. The higher mean score of parents on their responses to the frequency with which they "make credit purchases" was significantly different \( F(2, 706) = 18.89, p \leq 0.0001 \) from students and teachers.
DISCUSSION

The present study has shown that home economics teachers appear to have somewhat higher levels of consumer education competency than students and parents. Teachers had the highest knowledge and attitude scores. Parents tend to have had more experiences than students and teachers in many of the areas examined. None of the three groups of respondents, however, can be said to have high levels of consumer education knowledge.

Although teachers had the highest score (71% correct) on the test of consumer education knowledge, this can only be considered a moderate level. This result seems to suggest that if home economics teachers are required to teach consumer education concepts, they might not be adequately prepared for the task. Two earlier studies on the consumer education competency of teachers in the United States reported that teachers might be required to teach a subject for which they did not possess a high level of cognitive competency, and for which they did not receive academic preparation (Garman, 1979; Lofgren & Suzuki, 1979). The results of the present study support previous studies, and point out the need for inservice education of such teachers in this specific academic area.

The low levels of consumer education knowledge of students and parents are indicative of their need for consumer education. Students obtained the lowest score (41% correct) on the test of consumer education knowledge. This suggests a lack of knowledge of important consumer education concepts. Low levels of knowledge of basic consumer education concepts seem to support the inclusion of consumer education in the
curriculum of high schools generally, but senior comprehensive high schools specifically.

Parents' score (50% correct) on the consumer education knowledge test also suggests a lack of knowledge of important consumer education concepts. Research has shown that adolescents learn the consumer role through communicating with their parents about consumption matters (Churchill & Moschis, 1979; Moschis, 1976/1977; Moschis, 1985). Only 10% of the students in the present study identify their parents/guardians as their source of reliable consumer information. This might be attributable to parents' lack of knowledge of important consumer education concepts.

One can argue that if parents are deficient in consumer education knowledge, then their ability to be effective socialization agents and communicate valuable consumer competencies to their children would be extremely limited. This seems to suggest that parents need help in order to improve their competencies as consumers, and the well-being of their families.

Research tends to support the notion put forward by Torrance (1960) that students' learning and subsequent behavior often reflect the attitude of their teachers. Burton (1972), for example, found that teachers with very consumer-oriented attitudes were more likely to transmit such attitudes to students than those teachers who were less consumer-oriented. If research concerning attitude transferral is valid and reliable, then one would expect that teachers with very positive attitude toward consumer education would tend to transfer similar kinds of attitude to their students. Because home economics teachers in the present study were found
to have positive attitudes towards consumer education on all three attitude factors measured, there is great likelihood that they might be able to foster positive attitudes in their students.

Teachers' mean attitude score, however, was highest for the items measuring resource management, and lowest for items measuring attitude about the marketplace. This might indicate that although these teachers tend to have positive attitudes about consumer education generally, their attitude about the marketplace could be improved. Parents also tend to have more positive attitude about resource management than about the marketplace. Their attitude in the area of consumption as it related to the societal environment, however, is negative.

Students tend to have positive attitude toward the marketplace and about resource management. The results indicate, however, that apart from having the lowest score on the test of consumer education knowledge, students also had the lowest scores on all three attitude factors. They, like their parents, tend to have negative attitude in the area of consumption as it relates to the societal environment. This might suggest the existence of some kind of relationship between parents' and their children's attitude about consumption in relation to the societal environment. Further research is necessary to determine if such a relationship does in fact exist.

In terms of frequency of experiences, more parents than teachers and students seem to have experiences in many of the areas examined. Parents appear to give greatest consideration to their values and goals in their consumption behavior, to consider the effects of their consumption on the
environment, to practice saving money for special purposes, read product labels, make price-quality comparisons, purchase items on credit, complain about faulty products more often, and are more likely to plan ahead for important items than teachers and students.

Statistically significant differences were found more often between parents and students, than between parents and teachers, and students and teachers. Except for the frequency with which they "report unfair business practices," parents had significantly higher mean scores than students on six of the seven items that showed statistical differences in experiences. It should be pointed out that although parents had higher mean scores than teachers on the three questions pertaining to considering values and goals in their spending decisions, planning ahead for important items, and reporting unfair business practices, the differences between these two groups of respondents on these three items were not statistically significant.

Teachers appear to have more frequent experiences with budgeting, opening savings/checking account, applying for loans, and purchasing insurance than parents and students. It is interesting to note also that although teachers had higher mean scores than parents on items pertaining to the frequency with which they make some kind of spending plan/budget, make price-quality comparisons, and consider the total cost of credit, the differences between teachers and parents on these three items were not statistically significant. It should also be pointed out that the higher average scores of teachers on the four questions pertaining to considering values and goals when deciding to spend money, making out some kind of
spending plan/budget, making price-quality comparisons, and planning ahead for important items were not statistically different than students' mean scores on these four items. This might be an indication that although teachers tend to have more opportunities for consumer experiences than students in these consumer behaviors, the differences in their levels of experience might not warrant much practical attention.

The data reveal, nonetheless, that many students appear to lack experience in essential consumer behaviors. This lack of essential experiences during the pre-adult years is likely to result in inefficient consumer behaviors in the adult years. Although only 4% indicate that they receive no spending money monthly, for example, 14% have never made out a budget or spending plan for their money.

It is also evident that none of the three groups of respondents appears to have much experience in reporting unfair business practices to the Consumer Guidance Council. All respondents had the lowest mean scores on this item, and the dispersion of scores for each subset of respondents was greater than their mean scores on this item. The data also reveal that slightly more than one-third of the students (37%) have never complained about a faulty product. These findings might indicate that citizens in Trinidad and Tobago may not be fully cognizant of their consumer rights and responsibilities, or knowledgeable of consumer channels of redress, and the functioning of the only consumer agency in the country. The implication is that consumer education on these issues is warranted.
Students seem to score lowest on all but one of the 11 experiences items examined. Although they had a higher mean score than teachers on the item pertaining to the frequency with which they make purchases on credit, the difference between students and teachers on this item was not statistically significant.

If the objective is to improve students' consumer education competencies, then some educators might argue that students should be enrolled in a course designed to provide an indepth study of consumer education concepts. The literature provides evidence on this view. Research has found that students' consumer education competencies improved a great deal when they were enrolled in courses where the emphasis was on consumer education or consumer economics principles rather than economics principles (Hellums & Gorman, 1984; Langrehr, 1979). Data from the present study indicate that several courses taken at school provide students with consumer education information. Such courses include home management (30%), social studies (21%), foods and nutrition (19%), clothing and textiles (13%), economics (13%), business studies (10%), and mathematics (8%). The home management curriculum in home economics seems to provide many students with consumer education information. Not all students, however, enroll in home management classes. Research has shown that students' knowledge of consumer education concepts improved whether such concepts were learned in a specific consumer education course or integrated into consumer and homemaking curriculum (Hellums & Gorman, 1984). It is therefore a necessity that in the absence of a consumer
education course, consumer education concepts should be incorporated in all home economics curricula.
IMPLICATIONS

The findings of this study provide evidence that home economics students in senior comprehensive high schools in Trinidad and Tobago, their home economics teachers and parents need to improve their consumer education competencies. These data support the need for integrating consumer education concepts into existing home economics curricula at the senior secondary level.

It is also evident from the results that if consumer education is instituted as an integral part of existing home economics curricula in Trinidad and Tobago, many teachers are in need of training in consumer education subject-matter content. In an effort to meet this need, intensive inservice consumer education programs should be made available to all home economics teachers currently employed in senior comprehensive high schools in the country.

The data reveal that students' parents are also in need of education for improved competencies as consumers. Because most parents seem to rely on the media (newspaper and television) as their source of reliable consumer information, mass communication media might be used to greater advantage in providing valuable consumer education for parents in their several communities. Concepts examined in this study provide useful direction for the development of these educational efforts. Emphasis should be placed on topics related to understanding the Trinidad and Tobago economy, the consumers' role in the marketplace, management of consumer resources, and consumer rights and responsibilities.
The findings of the present study should be of interest to education administrators involved in planning for expansion of home economics education offerings in Trinidad and Tobago. Because of the relatively small sample of teachers, however, results pertaining to home economics teachers should be accepted with some caution. It is hoped that future research will extend this effort by looking at the consumer education competencies of all home economics teachers of 11th and 12th grade students in the country.
REFERENCES


SECTION II.

RELATIONSHIPS BETWEEN CONSUMER EDUCATION COGNITIVE AND AFFECTIVE BEHAVIORS OF SELECTED AUDIENCES IN TRINIDAD AND TOBAGO
RELATIONSHIPS BETWEEN CONSUMER EDUCATION
COGNITIVE AND AFFECTIVE BEHAVIORS OF SELECTED AUDIENCES
IN TRINIDAD AND TOBAGO

Author: Theodora E. Alexander
Research Assistant
Home Economics Education
Iowa State University
Ames, Iowa 50011

Galley proof to: Theodora E. Alexander
Research Assistant
Home Economics Education
Iowa State University
Ames, Iowa 50011
This study examined relationships between knowledge, attitude, and experiences in consumer education content and selected demographic variables for three groups of subjects. Data were obtained by questionnaires from 413 home economics students, 285 parents, and 22 teachers. Significant, but low and positive, relationships exist for all groups between their knowledge of and attitude towards consumer rights and responsibilities; between teachers' consumer information knowledge and attitude; parents' consumer decision-making knowledge and attitude; students' knowledge and experiences, students' and parents' attitude and experiences in values underlying education for consumption.

Significant relationships for demographic variables are generally positive, but low for students and parents, and moderate for teachers. Except for income, which is significantly related with parents' knowledge in each of the five content areas examined, none of the demographic variables has any significant relationship to knowledge, attitude, or experiences in all content areas for any single group of respondents.
INTRODUCTION

Early psychologists and educators proposed the existence of a relationship between cognitive and affective behaviors. The notion was that affective behaviors resulted from mental or cognitive processes, and that attitudes were linked to behaviors via cognitive relations (Insko & Schopler, 1967; Krathwohl, Bloom, & Masia, 1974; Woodruff, 1964).

Knowledge, attitude, and behavior have long been accepted as the three domains of learning. Psychologists contend that the triad are not necessarily consistent one with the other, but can be assumed to move toward consistency (Insko & Schopler, 1967). According to social-psychological theory, attitudes and behaviors are intertwined, in that attitudes are among the most basic constructs leading to actual behavior (Bennett & Kassarjian, 1972). Consumer and marketing researchers claim that consumers' attitudes influence their intentions to behave in various ways, and that these intentions, in turn, influence their behavior (Wallendorf & Zaltman, 1984).

The relationship between cognitive and affective behaviors has not been the subject of common focus of current researchers, and findings relative to the topic have been inconsistent. Early studies found small but significant correlations. In fact, the correlation coefficients were so low that they were considered almost meaningless. The low correlations indicated that there was little or no relationship between knowledge and attitude in the content areas examined. It must be noted, however, that although the correlation coefficients were extremely small, the
relationships were in the expected direction: Those with more knowledge were found to have more positive attitudes (Beattie, 1962; Hughes, 1969).

More recent studies tend to produce somewhat larger correlations in some instances, and quite small correlations in other instances. McClelland (1980), for example, found that for one group of parents, the relationship between their parenting knowledge and behavior was moderately high, statistically significant, and in the expected direction. Those who had the knowledge knew why they did what they did in many of the content areas examined. For another group of parents, however, the relationship was generally low, negative, and statistically nonsignificant.

Johnson and Johnson (1985) also found statistically significant relationships between nutrition education knowledge and behavior, and between nutrition attitudes and behavior. The correlation coefficients were also low, but positive (.32 and .47). There was no statistically significant relationship between nutrition knowledge and attitude (p=.31). The correlation coefficient, although extremely low (r=.09), was in the expected direction.

One of the shortcomings of consumer education research and evaluation efforts has been the failure to examine relationships between cognitive and affective responses. The purposes of this study, therefore, were (a) to analyze relationships among consumer education knowledge, attitude, and experiences of home economics students, home economics teachers, and students' parents; and (b) to examine relationships between selected demographic variables and levels of consumer education knowledge, attitude
toward consumer education content, and experiences in content areas for these three groups of subjects.
PROCEDURE

The population for this study included home economics students, home economics teachers, and parents/guardians of home economics students attending senior comprehensive high schools in Trinidad and Tobago.

Sample

The 29 senior comprehensive high schools in Trinidad and Tobago were stratified by geographical regions. One school from each stratum was randomly selected using a table of random numbers. Seven schools were selected, and all agreed to participate in the study.

All students enrolled in home economics classes, all home economics teachers, and one parent/guardian of each participating student were invited to participate. The invited sample included 413 students, 413 parents, and 35 teachers. Although approximately one-third (n=12) of the 35 teachers were unavailable for data collection on the appointed days, all such teachers were invited to participate in the study.

Student characteristics

Ages ranged from 14 to 19 years, the average age being 15 years. There were 216 students in the 12th grade and 197 in the 11th grade; 378 were females and 35 were males. Two hundred and thirty-four (57%) lived in rural areas, 73 (18%) lived in urban areas, and 105 (25%) in suburban areas. Eighteen students received no spending money at all, and 308 received most of their spending money from their parents, mothers being the chief source. All students had taken at least one course in which they received consumer education information.
Parent characteristics

There were 227 females and 58 males. Two hundred and fifty-one (89%) were between 25 and 54 years old, the average age grouping being 35-44 years. More than half (n=184) lived in rural areas, 32 (11%) in urban areas, and 69 (24%) in suburban areas. One hundred and seventy-seven (62%) had elementary education as their highest level of education; 63 (22%) had high school, and 39 (14%) had some form of post-high school education. Fifty families (18%) had monthly income below $500 T.T ($139 U.S.). The average monthly family income was between $1,000 and $2,000 T.T. Fifty-nine (21%) family breadwinners were unemployed, and slightly over one-third (n=109) were employed in production-type occupations. Families on the average could be considered large. Of the 279 parents who responded to this item, 14 had one child in the family, and 153 had more than five children. The average number of children per family was between five and seven.

Teacher characteristics

Of the 22 teachers in the sample, 18 were females, and 4 were males. Twenty were between 25 and 54 years old, the average age being in the 35-44 year group. Twelve (54%) lived in suburban areas, 7 (32%) in rural areas, and 3 (14%) in urban areas. Half (n=11) had a teachers' diploma as their highest academic qualification, 6 were graduates of a technical institute, 2 had the City and Guilds of London Institute qualification, and 3 had college degrees. The majority (n=20) could be described as being in the high income group (i.e., over $3,000 T.T monthly). Half of the teachers had been teaching home economics for more than 10 years. In
general, sample characteristics tend to match typical characteristics of the Trinidad and Tobago population.

Instrument and Data Collection

Data were collected with the use of a questionnaire developed by the researcher. Part I of the questionnaire was a consumer education knowledge test which contained 39 multiple-choice items adapted from a test developed formerly by Harder (1979). Part II was an attitude scale to assess participants' attitude toward consumer education concepts. The scale was adapted from a former study by Crawford (1980) and contained 16 items on a 9-point Likert-type scale of agreement-disagreement. Part III contained 18 items that assessed participants' experiences in consumer education content areas, and were also adapted from the Crawford study mentioned above. Additional items specific to the Trinidad and Tobago situation were developed by the researcher. A table of specifications provided guidance for the development of items in these three sections.

Part IV of the questionnaire requested personal and demographic information. Among the variables were: sex, age, academic level, place of residence, income, source of spending money, occupation, number of children in the family, years of home economics teaching, total years of teaching experience, and consumer education-related courses taken at school. Items in this section were formatted differently for the three groups of respondents. Each respondent provided information only on seven specific variables, the first five listed above being common to all respondents.
The instrument was validated by personnel with expertise in consumer education and evaluation, then pilot-tested with similar audiences (n=82) from two secondary schools in Trinidad and Tobago. In its final form, the instrument contained 80 items which assessed consumer education knowledge, attitude, and experiences in the following content areas: (a) values underlying education for consumption, (b) consumption: an expression of lifestyle, (c) consumer decision making, (d) consumer information: location, evaluation, and processing, (e) change and the consumer, (f) consumer and the economic environment, and (g) consumer rights and responsibilities.

The questionnaire was administered by the researcher to all available students and teachers in their classrooms. Questionnaires for those teachers who were unavailable during the scheduled data collection times were left with a home economics teacher at each school. Students who completed the questionnaire hand-carried a similar copy home to one of their parents/guardians (whoever was available and willing to participate), and were asked to return the completed instrument to their home economics teacher. The questionnaire, with accompanying answer sheet, was placed in an unsealed envelope. A cover letter accompanying the instrument explained the purpose of the study, assured respondents of anonymity, and informed that participation was voluntary. The cover letter was addressed only to "parent/guardian" without any further instructions about who should complete the instrument.

Parents and unavailable teachers were given two days to respond. Several follow-ups were conducted by the researcher in an effort to obtain
parent and teacher responses. Follow-ups took the form of personal visits to schools urging teachers to encourage parent returns of the instrument. All participants were provided with NCS-10 computerized answer sheets on which to record responses. Except for two geographically remote schools, all questionnaires were collected by the researcher. School supervisors of the two remote areas acted as liaison personnel for collection of instruments returned by parents.

A total of 413 questionnaires were distributed to students, 413 to parents, and 35 to teachers. Of the 861 questionnaires distributed, 726 were returned, representing an 84% total response. This included 413 students (100%), 290 (70%) parents, and 23 (66%) of the 35 teachers. All students (n=413), 285 parents, and 22 teachers provided usable data.

Data Analysis

Data were analyzed by content areas and by subgroup of respondents. Correlation procedure from the Statistical Package for the Social Sciences (SPSSX version) was used. The level of statistical significance set for the study was 0.05.

Frequency counts and percentages were computed for the items in the demographic section of the questionnaire. Subscores for knowledge, attitude, and experiences in five content areas in the table of specifications were calculated. Correlation coefficient matrices were computed for each content area and for each subgroup separately. The hypotheses tested were (a) that there are no significant relationships among consumer education knowledge, attitude, and experiences of students, parents, and teachers in each of the five content areas; and (b) that
there are no significant relationships among these consumer education competencies and demographic variables for students, parents, and teachers on each of the five content areas.

It must be emphasized from the outset that there are no cause-and-effect implications in stating relationships between the variables. The purpose of the examination was to show the direction and degree of association between the variables and to establish which variables are significantly correlated and which are not. Information on one bivariate carries valuable information about the other.
FINDINGS AND DISCUSSION

Values Underlying Education for Consumption

Significant relationships were found between knowledge and experiences for students, and between attitude and experiences for both students and parents (see Table 4). Students with experiences in this content area tended to have high levels of knowledge and positive attitude. Parents with similar kinds of experience also tended to have positive attitude.

Concepts in this content area included "influence of value systems and socio-cultural situations on consumer choices," "impact of one's consumption on others and the environment," and "quality of life" in relation to material possessions and consumer choices.

Grade level and consumer education-related courses taken were significantly correlated with students' knowledge; place of residence and sex correlated significantly with their attitude; and age correlated significantly with their experiences of the content (see Table 5). Students in the 12th grade and those enrolled in home management classes had high knowledge levels. Females, and those from rural areas had positive attitude. Older students had more experiences than younger students.

Family income was the only variable which appeared to have some relationship to parents' knowledge of and attitude toward these concepts. Age group was significantly correlated with their experiences (see Table 6). Parents in the higher income groups tended to have higher levels of knowledge of the content. Parents in the older age groupings tended to
Table 4. Pearson product-moment correlations\textsuperscript{a} among knowledge, attitude, and experiences scores in five consumer education content areas for students, parents, and teachers

<table>
<thead>
<tr>
<th>Content area</th>
<th>Students</th>
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<th>Teachers</th>
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<tbody>
<tr>
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<td>III</td>
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<td>Experiences</td>
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<td>Consumers and the economic environment:</td>
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<td>Experiences</td>
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<td>Consumer information: location, evaluation, processing:</td>
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</tr>
</tbody>
</table>

\textsuperscript{a}Decimal points have been omitted.

\textsuperscript{b}Variables I-III are the consumer education components: knowledge, attitude, experiences.

*Significant at $p \leq 0.05$.

***Significant at $p \leq 0.001$. 
Table 4. Continued

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Table 5. Pearson product-moment correlations\textsuperscript{a} between knowledge, attitude, experiences scores in five consumer education content areas and selected independent variables for students

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<td>17***</td>
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\textsuperscript{a}Decimal points have been omitted.

*Significant at \( p<0.05 \).

**Significant at \( p<0.01 \).

***Significant at \( p<0.001 \).
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Table 6. Pearson product-moment correlations\(^a\) between knowledge, attitude, experiences scores in five consumer education content areas and selected independent variables for parents

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<th>Place of residence</th>
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\(^a\)Decimal points have been omitted.
*Significant at p<0.05.
**Significant at p<0.01.
***Significant at p<0.001.
Table 6. Continued

<table>
<thead>
<tr>
<th>Content areas</th>
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<th>Place of residence</th>
<th>Sex</th>
<th>Family income</th>
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<td>V. Consumer rights and responsibilities:</td>
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</table>
have more experiences than those in the younger age groupings. Income group correlated significantly with teachers' attitude (see Table 7). Both parents and teachers in high income groups tended to hold positive attitude toward content in this area.

Consumer Decision Making

Parents' knowledge of consumer decision-making concepts correlated significantly with their attitude toward such concepts (see Table 4). Family income and number of children were significantly correlated with their knowledge; income and occupation correlated significantly with their attitude (see Table 6).

Concepts pertaining to consumer decision making included "choice of goods and services needed presently to achieve maximum satisfaction," "influence of resource availability on consumer decisions," "interrelated consumer decisions," "knowledge of public goods and services," and "change in resource availability over time." Parents with high income and those with fewer children tended to have more knowledge of such concepts; those with high income and those in the more highly skilled occupations tended to have positive attitude toward such concepts. Income seemed to be associated with parents' knowledge and attitude in this area, but had no statistical relationship to their experiences. As shown in Table 6, the correlation between their knowledge of consumer decision-making concepts and their income was low, but positive (r=.35). That between attitude and income indicated little if any association.

Students' sex and consumer education related courses taken were significantly correlated with their experiences in consumer decision
Table 7. Pearson product-moment correlations\textsuperscript{a} between knowledge, attitude, experiences scores in five consumer education content areas and selected independent variables for teachers

<table>
<thead>
<tr>
<th>Content areas</th>
<th>Age group</th>
<th>Level of education</th>
<th>Place of residence</th>
<th>Sex</th>
<th>Income category</th>
<th>Total years of teaching</th>
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\textsuperscript{a}Decimal points have been omitted.

\*Significant at \(p<0.05\).

\*\*\*Significant at \(p<0.001\).
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<td>50**</td>
<td>19</td>
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<td>Attitude</td>
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<td>Experiences</td>
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**Significant at p<0.01.**
making (see Table 5). Females, and those enrolled in home management classes seemed to have more experiences than others. A significant moderate correlation ($r = .52$) was found between teachers' experiences and their place of residence. Teachers who lived in urban areas appeared to have more experiences in the consumer decision-making concepts than their counterparts in rural areas.

Consumer and the Economic Environment

No statistically significant relationships were found among knowledge, attitude, and experiences for any of the three groups of subjects in this content area. The two variables which appeared to have some significant relationships to students' knowledge, however, were sex and place of residence. Courses taken correlated significantly with their experiences (see Table 5). Females, and those who lived in rural areas appeared to have greater knowledge; those enrolled in mathematics classes appeared to have more experiences of the concepts examined than others. Such concepts included "consumers' role in influencing the availability of goods and services;" "government's role in the marketplace;" "influence of production, distribution, and selling costs on consumers' price;" and "effects of market competition on consumers' price, variety of goods and services, and amount of innovation."

Whereas family income was significantly correlated with parents' knowledge of the concepts, occupation was significantly correlated with both their knowledge and attitude. Place of residence correlated significantly with both their attitude and experiences, and sex correlated significantly only with their experiences (see Table 6). Parents in the
higher income groups and those in the more highly skilled occupations seemed to have more knowledge; those in the more highly skilled occupations and those who lived in urban areas seemed to have more positive attitude; males, and those parents who lived in rural areas seemed to have more experiences of concepts in this content area than others.

Consumer Information: Location, Evaluation, Processing

A statistically significant relationship was found between teachers' knowledge of and attitude toward concepts measured in this category. As shown in Table 4, the correlation was low and positive ($r = .45$). Relationships among knowledge, attitude, and experiences for students and parents were not statistically significant.

Total years of teaching and age group were significantly correlated with teachers' experiences in this content area. Table 7 shows that the correlation coefficients (.54 and .63) were moderate and positive, indicating that teachers in older age groupings, and those with more years of total teaching experience generally, tended to have more experiences in consumer information than others. None of the variables examined was significantly related to teachers' knowledge of and attitude toward concepts measured in this content area. Such concepts included "decision making without complete information;" "evaluation of consumer information;" "effects of advertising on freedom of choice;" and "necessary, pertinent, and readily available consumer information."
For students, courses taken appeared to have some statistical relationship to both their knowledge and attitude. Place of residence, sex, and amount of spending money were correlated significantly with their experiences (see Table 5). Those students enrolled in business studies classes appeared to have higher levels of knowledge; those enrolled in home management classes, and those whose chief source of spending money was their parents appeared to have more positive attitude; females, those who lived in rural areas, and those who received very little or no spending money appeared to have more experiences of the concepts than other students. The correlation coefficients, however, were so low as to be considered meaningless.

Table 6 shows significant relationships between knowledge and income, and between attitude and age group of parents in the consumer information concepts examined. Parents in high income groups seemed to have more knowledge; those in the younger age brackets seemed to have more positive attitude toward consumer information concepts than other parents. Again, the correlation coefficients were extremely low, indicating little if any association between the variables.

Consumer Rights and Responsibilities

Significant relationships were found between knowledge and attitude as evidenced by statistically significant correlations for students, parents, and teachers. As shown in Table 4, the significant correlation coefficient for students was extremely low, indicating little if any association; that for parents (r=.32) and teachers (r=.50) indicated low, positive associations between their knowledge and attitude in this content.
The relationships between knowledge and experiences, and between attitude and experiences did not reach statistical significance for any of the three groups of subjects.

Concepts which measured consumer rights and responsibilities included "right to adequate information;" "right to, and responsibility for, relatively safe products and services;" "right to effectively communicate satisfaction/dissatisfaction;" "responsibility for making judicious choices;" and "responsibility for changing undesirable conditions in the marketplace."

Income group was significantly correlated with parents' knowledge (see Table 6) and teachers' attitude (see Table 7). Teachers' sex correlated significantly with their knowledge of the concepts. This latter finding is quite similar to that reported by Lytton, Garman, and Machooka (1984) in relation to teachers' knowledge of consumer rights and responsibilities. In the Lytton et al. (1984) study, income was also found to be statistically correlated with teachers' knowledge of consumer rights and responsibilities. In the present study, however, income correlated statistically with teachers' attitude. Female teachers in this sample seemed to have greater knowledge, and those in the higher income groups seemed to have more positive attitude than their counterparts on the concepts measured in this content area.

For students, significant relationships existed between their knowledge of consumer rights and responsibilities, their attitude toward such concepts, their experiences in such concept areas, and courses taken (see Table 5). Students enrolled in home management classes appeared to
have higher knowledge levels and more positive attitude; those enrolled in economics classes appeared to have more experiences than others. Grade level and place of residence were also significantly related to students' attitude (see Table 5). Students in the 12th grade and those from rural areas seemed to have more positive attitude than others toward the concepts which measured consumer rights and responsibilities.
CONCLUSIONS

An inspection of Table 4 indicates that the intercorrelations for knowledge, attitude, and experiences for most of the content areas examined were extremely low (42 of the 45 coefficients were below .30). Of the 45 correlation coefficients, only eight reached statistical significance, one of which indicated a low relationship; another indicating a moderate relationship. The relationship between teachers' consumer information knowledge and attitude was low ($r = .45, p < 0.05$); that between their knowledge of and attitude toward consumer rights and responsibilities was moderate ($r = .50, p < 0.05$). The other six significant correlations indicated little if any relationship between the variables.

These very low correlations restrict the use of further multivariate correlational procedures for data analysis. The researcher speculates that the small size of the coefficients might be due to inadequate dispersion of scores within groups. It is interesting to note that some of the relationships for teachers were as strong as students' and parents', but statistically nonsignificant. Smaller coefficients for students and parents tended to reach significance, whereas larger coefficients for teachers did not because of the relatively small sample size ($n = 22$).

Although 22 of the 45 coefficients were negative, it should be noted that all significant coefficients were in a positive direction according to the coding of the variables. Of the five content areas examined, statistically significant relationships between knowledge and attitude were found in the three areas of consumer decision making, consumer
information, and consumer rights and responsibilities. Only for the latter area were the relationships significant for all three groups of subjects. Significant relationships between knowledge and experiences, and attitude and experiences were found only for content pertinent to "values underlying education for consumption."

Tables 5, 6, and 7 indicate that the coefficients on independent variables, particularly for students and parents, were also extremely small. None of the coefficients for students was above .24, and those with statistical significance ranged from as low as .10 to .24. Of the 105 coefficients for parents, only one was above .30. Those with statistical significance ranged from .12 to .35. These coefficients were sufficiently low to indicate that the variables were not strikingly correlated. In general, coefficients for teachers were somewhat larger. Of the 105 coefficients, 20 were above .30, five of which were above .50. Those that reached statistical significance ranged from .52 to .68, indicating moderate relationships.

It is interesting to note that there were no statistically significant relationships between level of education and cognitive and affective responses for parents and teachers. Also, the number of years that teachers had been teaching home economics seemed to have no significant relationship to their cognitive and affective responses to items on this instrument. The amount of money students had to spend seemed to have no significant relationship to their cognitive and affective behaviors in almost all of the content areas examined. Students with very little money to spend appeared to seek out more consumer
information. Except for this latter, these findings are quite contrary to the researcher's initial expectations and the general assumptions in the field.

For the subjects in this sample, the data seem to suggest some doubt that a direct relationship between cognitive and affective responses to consumer education content exists. In addition, many of the independent variables seem to bear very little if any association to respondents' cognitive and affective responses in the content areas examined. Other characteristics for which these subjects are more variable might need to be considered.

More research is necessary to ascertain what specific combination of variables are related to high levels of knowledge of consumer education concepts, positive attitude toward such concepts, and actual behaviors or experiences in such concept areas. In addition to paper-and-pencil measures, other methods of obtaining data on affective behaviors might be more appropriate. If the correlation coefficients from future studies are large, then multivariate correlational procedures might be another useful approach to data analysis for such a study. In the event of large correlations, however, the researcher will need to be fully cognizant of the problems emanating from multicollinearity.
REFERENCES


SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

The purposes of this study were (a) to examine differences in consumer education knowledge, attitudes, and experiences of high school students, home economics teachers, and students' parents; (b) to examine relationships among consumer education knowledge, attitudes, and experiences of students, parents, and teachers; (c) to examine what demographic variables appear to have possible relationships to these consumer education competencies of the three groups of subjects; and (d) to make recommendations for consumer education programs in Trinidad and Tobago.

The sample came from seven senior comprehensive high schools randomly selected from 19 such schools in Trinidad and Tobago. All home economics students, their parents/guardians, and home economics teachers were included.

The questionnaire used for data collection contained an achievement test, an attitude inventory, an experiences device, and a general information section. The achievement test consisted of 39 objective items and had reliabilities of .62, .66, and .61 for students, parents, and teachers, respectively.

The attitude inventory contained 16 items that clustered into three factors by factor analysis. Reliabilities on the three attitude factors for the total sample were .71, .61, and .56. By subgroup of respondents, reliabilities ranged from .50 to .82. One attitude factor contained only
two items and had the lowest reliability coefficients. The reliabilities were considered acceptable for the purposes of the study.

The experiences device consisted of 18 items which assessed respondents' experiences in specific content areas. All items in the knowledge, attitude, and experiences components were designed to evaluate consumer education competencies in the following content areas: (a) values underlying education for consumption, (b) consumption as an expression of lifestyle, (c) consumer decision making, (d) consumer information: location, evaluation, and processing, (e) change and the consumer, (f) consumer and the economic environment, and (g) consumer rights and responsibilities.

The general information section contained seven items pertinent to personal and demographic characteristics of respondents. All respondents provided information on their sex, age, level of education, residence, and income. Two questions requested different information of each group of subjects. Students were asked to provide information on source of spending money and courses taken that provided consumer education information. Parents provided information on occupation of family breadwinner and number of children in the family. Teachers provided information on total years of teaching experience and years of home economics teaching.

The questionnaire was administered by the researcher to 413 students, 413 parents, and 35 teachers. Data were collected toward the end of the first semester of the 1985-1986 school year. Usable data were obtained from 413 students, 285 parents, and 22 teachers. Frequencies,
percentages, factor analysis, one-way analysis of variance, and Pearson Product-Moment correlation were the statistical procedures used for analysis of the data.

**Differences in knowledge, attitude, and experiences**

In the analysis for differences among subgroups, significant differences were found among the mean knowledge scores, as well as among the mean attitude scores for students, parents, and teachers. In all instances, teachers had the highest scores. Although this result indicated that teachers had a higher level of knowledge of consumer education concepts and more positive attitude toward such concepts than parents and students, teachers' knowledge level was not sufficiently high to be considered outstanding or impressive. All three groups of respondents were found deficient in knowledge of basic consumer education concepts, but possessing positive attitudes in general.

Parents had experiences in many more areas than students and teachers. Students appeared to lack experiences in basic areas of consumption activities. Seven of the 11 experiences items analyzed for differences were found to have statistically significant F-ratios. More significant differences were found between students and parents than between any other two groups, parents most often having the higher score.

**Relationships among cognitive and affective responses**

In the analysis for relationships among cognitive and affective responses to specific consumer education content areas, the correlation
coefficients that showed statistical significance were extremely low, but in the expected direction. Statistically significant relationships were found between knowledge and attitude for all three groups of subjects in the area of "consumer rights and responsibilities." The coefficients, however, indicated little if any relationship for students and low relationships for parents and teachers.

Significant relationships were found between teachers' knowledge of and their attitude toward consumer information content, between parents' knowledge and attitude in the area of "consumer decision making," and between students' knowledge and experiences in the area of "values underlying education for consumption." The only significant relationships between attitude and experiences were found for students and parents in the area of "values underlying education for consumption." There were no statistically significant relationships between the cognitive and affective responses for any of the three groups in the content area pertaining to "consumers and the economic environment."

Relationships between selected demographic variables

Several significant relationships were found between knowledge, attitude, experiences, and the demographic variables selected for examination. The correlation coefficients that showed statistical significance for students and parents, however, were extremely low. Some were in the expected direction, and others indicated inverse relationships. All statistically significant correlations for teachers were moderate and in the expected direction.
Although teachers had the highest score on the test of consumer education knowledge, except for one content area (i.e., consumer rights and responsibilities), there were no statistically significant relationships between any of the demographic variables and their knowledge in the specific consumer education content areas examined. Teachers also had the highest mean attitude scores on the attitude factors, indicating that they generally possessed positive attitudes toward the content examined. The only demographic variable which showed any statistical significance to their attitudes toward the specific content areas examined, however, was income. Significant positive relationships existed between income and their attitude toward content in the areas of "values underlying education for consumption," and "consumer rights and responsibilities."

Parents were found to have experiences in many more areas than students and teachers; age group, sex, and place of residence were the three variables which had some significant relationships to their experiences. These pertained only to two of the five content areas, namely, "values underlying education for consumption," and "consumers and the economic environment."

None of the demographic variables showed any statistically significant relationship to students' knowledge and attitude in the content area of "consumer decision making," or to their attitude in the area of "consumers and the economic environment." Age was significantly related only to their experiences in content pertinent to "values underlying education for consumption."
Conclusion

This study has provided the first set of data on the consumer education competencies of specific groups in Trinidad and Tobago. The researcher considers the findings of practical value to educators and educational planners in that country.

The study is an important contribution to consumer education and home economics research pertinent to a country other than the United States. Because the literature revealed no research on cognitive-affective relationships pertinent to consumer education content, the current study also contributes to information in this area.

Recommendations

Because this study is the first of its kind on the topic for Trinidad and Tobago, the findings should prove useful to curriculum planners in their efforts to expand the scope of home economics in senior comprehensive high schools in Trinidad and Tobago. The results also provide a useful guide for the establishment of consumer education programs in teacher training institutions and communities. The following recommendations are made:

1. Consumer education be incorporated into existing home economics curricula of senior comprehensive high schools, teacher training institutions, and adult/continuing education programs in Trinidad and Tobago.

2. A survey be conducted of the consumer education competencies of all high school home economics teachers to determine their need for inservice consumer education programs.
3. Research be conducted to examine what learning experiences will help students develop meaningful participation in the process of becoming efficient consumers, and what relationships exist between their cognitive and affective behaviors pertinent to consumer education.

4. These findings be used as a reference point in the development of curriculum materials for classroom teachers' use, for inservice workshops, and adult education programs.

5. The instrument used in the present research should be revised and made more appropriate for use as a consumer education evaluation tool for audiences in Trinidad and Tobago.

6. To improve the consumer education competencies of teachers currently employed to teach home economics, two additional steps are recommended:
   a. Introduction of summer workshops designed to incorporate consumer education concepts within the existing home economics curricula.
   b. Return to the teacher training institution for curriculum work in consumer education content areas.

7. If it becomes necessary to determine which teachers in Trinidad and Tobago high schools are most competent to teach consumer education concepts, then it is recommended that further research be conducted into such competencies of teachers in other subject-matter specialties.


Burton, J. R. (1972). Teachers' attitudes toward consumer issues and their appraisal of the educational relevance of these issues. The Journal of Consumer Affairs, 6(2), 223-228.


Hedges, W. D. (1980). Attitudes of parents, teachers, and students towards education in Florida high and low achieving high schools. Florida State University, Gainesville, College of Education. (ERIC ED 205 603)


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Thanks to God for health, strength, and the will to persevere.
APPENDIX A.

CONSUMER EDUCATION QUESTIONNAIRE
PART A: Your Knowledge of Consumer Education and Management

Directions: Read each question carefully and select the answer which best completes the statement. On the answer sheet provided, mark your answer to each question by darkening the letter corresponding to the answer you select. Mark only one response per question; use a #2 pencil for responding. PLEASE ANSWER ALL QUESTIONS.

1. An important factor for establishing priorities for basic needs is identifying one's
   A) standards
   B) time
   C) money
   D) values

2. When an individual or family uses credit to purchase consumer goods, the family's future spending potential
   A) remains unchanged
   B) will increase and then decrease
   C) is increased
   D) is decreased

3. If Pat wanted the satisfaction of using some of her human resources rather than all material ones, she would
   A) pay someone to make and install the shelves
   B) make shelves herself and put them up
   C) purchase the shelves at a store that will deliver them
   D) delay the purchase of shelves so as to save money

4. When making the decision to purchase a house, an individual or family should first consider
   A) amount of immediate repair the house needs
   B) preferences of colour scheme
   C) family lifestyle and needs
   D) insurance rate of the house

5. The Bennett family purchased a speed boat for weekend recreation. The purchase will change the family's activities by
   A) spending more time away from home
   B) participating in more community activities
   C) increasing expenditures for formal clothing
   D) having family members participate in diverse activities

November 1985
6. Inflation is an economic condition in which

A) salaries increase and each dollar buys more in the marketplace
B) the value of the dollar increases while prices decrease
C) it takes more dollars than in the past to buy the same amount of goods
D) salaries remain the same while prices increase

7. In figuring the real cost of an appliance, consumers should consider

A) how expensive it is to operate
B) the number of family members
C) who will be using it
D) the amount of space it uses

8. Factors that determine credit rating include all of the following except

A) capability
B) capital
C) character
D) convenience

9. Jill is concerned that she has vitamin C in her diet. Oranges are a good source of vitamin C, but she finds they are too expensive. She decides instead to buy canned orange juice. What are the two most important advantages to her of this choice?

A) lower cost, similar nutritive value
B) lower cost, easily prepared
C) similar nutritive value, more available
D) more available, more easily prepared

10. Free help for individuals who have difficulty completing their income tax returns can be obtained from

A) local magistrate's courts
B) Inland Revenue Offices
C) community development offices
D) private tax preparation firms

11. The primary responsibility of consumers in using credit is

A) borrowing on time only what one can afford
B) paying on debts what he/she can afford every month
C) knowing how to figure the true interest rate
D) limiting the use of credit to emergency needs

12. A person's use of public parks for meeting demands is utilizing

A) supplemental needs
B) nonhuman resources
C) basic needs
D) human resources
13. The best weapon to use against buying on impulse is:
   A) checking weights and measurements
   B) shopping at supermarkets
   C) shopping only on weekends
   D) using a shopping list

14. A consumer attempting to select a contractor to repair a house should first:
   A) ask the Ministry of Housing to identify the best contractor
   B) ask friends for names of contractors and check for satisfaction
   C) obtain price estimates and select the contractor who offers the lowest price
   D) request a recommendation from the Chamber of Commerce

15. An example of an advertising statement that can be relied upon when making a purchase is:
   A) "It can't be beat."
   B) "Better than any other."
   C) "Made of 100% cotton."
   D) "Contains special whitening agent X-80."

16. Judy saw an advertisement for a new stereo for $500. At the store, the manager pointed out the weaknesses of the $500 model and convinced Judy to buy another model for $1,000. This is an example of:
   A) a low ball
   B) bait and switch
   C) referral selling
   D) the fair sell

17. Name brand aspirin costs more than generic brand aspirin because it:
   A) is packaged better than the non-name brand
   B) works more effectively than the non-name brand
   C) has more advertising to make it seem different
   D) uses better labelling techniques than the other brand

18. As the income of a family increases, the family is likely to spend a smaller percentage of its income on:
   A) insurance
   B) travel
   C) taxes
   D) food
19. Mary's mother and father are elderly. She worries about their illnesses and the possibility of their sudden death. The parents have made no will and Mary thinks they only have a small estate. The best action for Mary to take involves

A) asking her parents to indicate on paper what they want done with the estate and have them sign it  
B) avoiding the topic because the estate is small and no will is necessary  
C) avoiding the subject of a will because it will upset her parents  
D) suggesting to the parents that they hire a lawyer to draw up a legal will

20. The basic principle on which insurance is based is that it

A) enables individuals to share losses  
B) reduces the chances of accident and death  
C) lowers the total cost of accidents  
D) shifts the financial burden away from government

21. The least expensive type of life insurance policy is

A) term  
B) whole life  
C) endowment  
D) annuity

22. An investment which has the greatest risk on the initial amount invested is

A) a Blue-Chip savings account in a national bank  
B) Trinidad and Tobago Government Bond  
C) common stock in a corporation  
D) a fixed deposit

23. The orange crop in Santa Flora Valley was reduced by a severe drought this year. Assuming the demand for orange juice remains constant, the price of orange juice will probably

A) go up as the supply of oranges goes down  
B) go down as the supply of oranges goes down  
C) not be affected by the supply of oranges  
D) stay the same because the canning company will absorb the loss

24. In the Trinidad and Tobago economy, the local production of goods is mainly determined by

A) economists and other experts  
B) parliament and the Senate  
C) anticipation of consumer demand  
D) business managers
25. The four major factors of production are
A) oil, land, gas, electricity
B) banking, investing, manufacturing, managing
C) wages, rent, interest, capital
D) land, labour, capital, management

26. A local ice cream store owner decides to sell sundaes for $4.00. Each sundae now costs the store owner $5.80. The store owner
A) is currently making a profit by selling sundaes
B) may be breaking the law by selling the item below cost
C) needs to closely examine the cost of producing sundaes
D) will sell more sundaes so the production cost decreases

27. When only one company provides consumers with the necessary goods and services, it is called a
A) corporation
B) monopoly
C) oligopoly
D) proprietorship

28. The group of people who feel the effects of inflation most is
A) retired people on a fixed income
B) business people with long-term debts
C) government employees on permanent appointment
D) insurance salesmen who receive a commission

29. A written statement attached to an article or a product describing its essential characteristics is the
A) guarantee
B) label
C) warranty
D) price tag

30. Two cans of powdered milk are the same type and quality. The kind of information that would help you decide which one is the better buy is the
A) size of the can
B) the item marked "on sale"
C) the cost per ounce of net weight
D) the label reading "10¢ off"

31. A consumer's right to be informed includes the right to
A) read specific ingredients on food labels
B) have access to products at competitive prices
C) know secrets that involve national defense
D) know the amount of profit a store makes on products
32. A firm assuming the responsibility of selling safe products to consumers should make products which are
   A) consistent with standards of quality set by other firms
   B) tested for safety before being placed on the market
   C) safe for any use by the consumer
   D) repaired free of charge within year of purchase

33. A consumer's right to safety in a consumer product carries with it the major responsibility to
   A) obtain information
   B) honor obligations
   C) follow instructions
   D) voice complaints

34. Government bodies (agencies) that provide consumer protection through regulations are
   A) manufacturers, retailers, and wholesalers
   B) Consumer Affairs Division, Bureau of Standards
   C) Chamber of Commerce, Lions Organization
   D) local and national village council organizations

35. Consumers can best improve the quality of locally-made goods sold on the market by
   A) complaining about poor products to the seller and producer
   B) demanding faster service at the marketplace
   C) throwing away faulty products
   D) warning friends about poor products

36. Understanding the terms of a Hire Purchase sale when transacting business is considered part of the consumer's
   A) satisfaction
   B) responsibility
   C) shopping ability
   D) given rights

37. You buy four new tyres from a local tyre dealer for $800 and discover one week later that they are retreads. The manager of the tyre store says you must have switched tyres and refuses to refund your money. The agency that would handle your complaint is
   A) Chamber of Commerce
   B) Bureau of Standards
   C) Consumer Affairs Division
   D) Appliance Manufacturers Limited
38. The Consumer Guidance Council has the responsibility to
A) advise government on consumer-related matters
B) rewrite proposed consumer laws
C) defend people in court actions
D) start class action suits

39. The Consumer Affairs Division performs the following functions except:
A) updates existing consumer legislation
B) recommends new consumer protection legislation
C) handles consumer complaints from the general public
D) regulates market price of goods

PART B: Your Attitude Toward Consumer Education and Management

Directions: Read each of the following statements. Use the 9-point scale below to indicate the extent to which you agree or disagree with each statement. Record the number which corresponds with your feeling about the statement by darkening the appropriate space on the answer sheet provided. PLEASE ANSWER ALL QUESTIONS.

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Use any number from 1 to 4 when you disagree with a statement. The more you disagree, the lower the number you use.

Use any number from 6 to 9 when you agree with a statement. The more you agree, the higher the number you use.

Use a 5 when you are uncertain or not sure about your response.

40. A person's values affect the choices that he/she makes.

41. Each person's use of goods and services affects the environment we live in.

42. Parents should be the ones to educate their children on how to be efficient consumers.

43. There isn't anything a person can do to cope with inflation.

44. People who use credit simply cannot manage their money effectively.
45. "Shopping around" for major purchases is usually a waste of time and energy.

46. Only people who earn lots of money should have a plan for spending it.

47. Reading the label on a product is a waste of valuable time.

48. The price of an item is the best indicator of the quality of the item.

49. Businesses usually do not provide information about their products that you can trust.

50. What each person does with his/her money affects the country's economy.

51. The responsibility for keeping the marketplace fair and honest rests equally with business, government and the consumer.

52. A concerned consumer should take the responsibility to report unfair business practices to the appropriate persons or agencies.

53. There is nothing a person can do to promote improved locally-made products.

54. The government should test competing brands of products and make the results of these tests available to consumers.

55. Advertising tries to persuade consumers to buy products they don't really need.

PART C: Your Experiences in Consumer Education and Management

Directions: Read each question carefully and select the response which best indicates your experience. On the answer sheet provided, mark your answer to each question by darkening the letter corresponding to the answer you select. PLEASE ANSWER ALL QUESTIONS.

56. In your use of goods and services, have you ever considered the effects on the environment?
   A) never
   B) sometimes
   C) always

57. Do you usually consider your values and goals whenever you are deciding to spend money?
   A) never
   B) sometimes
   C) always
58. From your experiences, how important do you think it is that government should regulate the prices of goods on the market?
   A) not important at all
   B) of very little importance
   C) very important
   D) extremely important

59. How often do you make out some kind of spending plan or budget?
   A) never
   B) once a week
   C) twice a week
   D) once a month
   E) once a year

60. How often do you make price-quality comparisons before you decide to purchase an item?
   A) never
   B) sometimes
   C) all the time

61. Do you ever plan ahead for an important item which you or family members need?
   A) never
   B) sometimes
   C) all the time

62. How often do you read the label on a product before you decide to buy the item?
   A) never
   B) sometimes
   C) all the time

63. From which single source do you get your most reliable consumer information?
   A) radio
   B) television
   C) newspaper
   D) parents/guardians
   E) friends
   F) government publications
64. Where would you say you learned the most about managing money, using credit, and/or buying insurance? (Check ONE response)  
   A) parents/guardians  
   B) friends  
   C) my own experience  
   D) classes-in school or other classes  
   E) advertisements  
   F) bank employees, salespersons  
   G) none of the above  

65. During the past year, how often have you complained to a seller or manufacturer about a faulty product?  
   A) never  
   B) one to three times  
   C) four to five times  
   D) more than five times  

66. During the past year, how often have you reported an unfair business practice to the Consumer Guidance Council?  
   A) never  
   B) one to three times  
   C) more than three times  

67. Have you personally ever opened a savings or checking account?  
   A) no  
   B) yes  

68. How often do you personally make purchases on credit?  
   A) never  
   B) once a month  
   C) twice a month  
   D) once a year  
   E) more than once a year  

69. Have you ever considered the total cost of credit?  
   A) never  
   B) sometimes  
   C) always  

70. Do you ever save money for special purposes?  
   A) never  
   B) sometimes  
   C) always
71. For what items have you ever had to save money? (Check all that apply)
   A) clothing, cosmetics/grooming supplies
   B) recreational activities (e.g., movies, parties, dances)
   C) entertainment items (e.g., radio, T.V., records, stereo equipment)
   D) sports equipment (e.g., football, tennis racquet, cricket bat)
   E) vehicle (car, bicycle, motorcycle, truck, van)
   F) home rental or purchase, house building or renovation
   G) future education
   H) transportation (bus, taxi, or airplane fare)
   I) gifts for family, friends, relatives
   J) insurance payments

72. From which of the following sources have you ever personally applied for a loan? (Check all that apply)
   A) junior cooperative
   B) credit union
   C) commercial bank
   D) finance company
   E) life insurance company
   F) savings and loan institution
   G) none

73. Which of the following types of insurance have you personally ever bought? (Check all that apply)
   A) automobile insurance (e.g., car, truck, tractor, taxi)
   B) home insurance
   C) life insurance
   D) medical/health insurance
   E) none
PART D. General Information

Directions: Please answer the following questions about yourself. Select the answer which represents your best response. On the answer sheet provided, mark your response to each question by darkening the letter corresponding to the answer you select. Mark only one response for each question. PLEASE ANSWER ALL QUESTIONS.

74. What is your age (as of your last birthday)?
   A) 14 years
   B) 15 years
   C) 16 years
   D) 17 years
   E) 18 years
   F) 19 years

75. In which Form are you at school?
   A) 4th Form
   B) 5th Form

76. What is your sex?
   A) male
   B) female

77. How would you best describe the location of your residence? (Select only one response.)
   A) city or town
   B) just outside a city or town
   C) village or country area

78. How much spending money do you receive monthly? (Select one answer.)
   A) less than $20
   B) $20 to $40
   C) $40 to $60
   D) $60 to $80
   E) $80 to $100
   F) more than $100
   G) no spending money (if none, go to question 80)
79. From which single source do you receive the bulk of your spending money?

A) mother  
B) father  
C) part-time job/work  
D) friend(s)/nonrelatives (e.g., godparents)  
E) relatives (brother, sister, uncle, grandparent, etc.)

80. In your opinion, which of the following courses have you taken that provided consumer education and information on management of resources? (Check all that apply)

A) Economics  
B) Business Studies  
C) Social Studies  
D) Clothing and Textiles  
E) Foods and Nutrition  
F) Home Management  
G) Mathematics

THANK YOU FOR YOUR COOPERATION
PART D. General Information

Directions: Please answer the following questions about yourself. Select the number which represents your best response. On the answer sheet provided, mark your response to each question by darkening the circle corresponding to the letter you select. Mark only ONE response for each question. PLEASE ANSWER ALL QUESTIONS.

74. In which age group are you?
   A) under 25 years
   B) 25 to 34 years
   C) 35 to 44 years
   D) 45 to 54 years
   E) 55 or over

75. What is your highest level of education?
   A) elementary school
   B) high school
   C) trade or technical school
   D) teacher's college
   E) university

76. What is your sex?
   A) male
   B) female

77. How would you best describe the location of your residence?
   A) city or town
   B) just outside a city or town
   C) village or country area

78. What is the monthly income of the family? (Include income of all earners.)
   A) less than $500 a month
   B) $500 to $1,000
   C) $1,000 to $2,000
   D) $2,000 to $2,500
   E) $2,500 to $3,000
   F) $3,000 to $3,500
   G) over $3,500
79. What is the occupation of the family breadwinner?

A) unemployed
B) member of defense force (police, army, navy)
C) production worker/transport equipment operator/labourer
D) agricultural, animal husbandry, forestry workers/fisherman/hunter
E) service worker (e.g., caretaker, food service/catering, beautician)
F) sales worker (e.g., store clerks, insurance/real estate, vendors)
G) clerical worker (e.g., office supervisor, bookkeeper, typist)
H) administrative/managerial worker (manager, legislator)
I) professional/technical worker (e.g., educator, doctor, scientist, lawyer)

80. How many children do you have in your family?

A) one child
B) 2 to 4 children
C) 5 to 7 children
D) 8 to 10 children
E) more than 10 children

THANK YOU FOR YOUR COOPERATION
PART D. General Information

Directions: Please answer the following questions about yourself. Select the answer which represents your best response. On the answer sheet provided, mark your response to each question by darkening the letter corresponding to the answer you select. Mark only ONE response per question. PLEASE ANSWER ALL QUESTIONS.

74. In which age group are you?
   A) Under 25 years
   B) 25 to 34 years
   C) 35 to 44 years
   D) 45 to 54 years
   E) 55 or over years

75. What is your highest academic qualification?
   A) G.C.E. or C.X.C. certificate
   B) John Donaldson technical certificate
   C) City and Guilds
   D) Teachers' college certificate
   E) Bachelor's degree
   F) Master's degree

76. What is your sex?
   A) male
   B) female

77. How would you best describe the location of your residence?
   (Select only one response.)
   A) city or town
   B) just outside a city or town
   C) village or country area

78. In which monthly income category are you?
   A) less than $500 a month
   B) $500 to $1,000
   C) $1,000 to $2,000
   D) $2,000 to $2,500
   E) $2,500 to $3,000
   F) $3,000 to $3,500
   G) Over $3,500
79. How many years of teaching experience do you have? (Count total years of teaching, regardless of whether it was in the same school, type of school or subject area.)

A) less than 5 years
B) 5 to 10 years
C) 10 to 15 years
D) 15 to 20 years
E) 20 to 30 years
F) over 30 years

80. For how many years have you been a home economics teacher?

A) less than 5 years
B) 5 to 10 years
C) 10 to 15 years
D) 15 to 20 years
E) 20 to 30 years
F) over 30 years

THANK YOU FOR YOUR COOPERATION
APPENDIX B.

ANSWER KEY TO ITEMS ON ACHIEVEMENT TEST
AND ATTITUDE INVENTORY
Answer Key to Items on Achievement Test and Attitude Inventory

A. Knowledge Test

1. D
2. D
3. B
4. C
5. A
6. C
7. A
8. D
9. A
10. B
11. A
12. B
13. D
14. B
15. C
16. B
17. C
18. D
19. D
20. A
21. A
22. D
23. A
24. C
25. D
26. C
27. B
28. A
29. B
30. C
31. A
32. B
33. C
34. D
35. A
36. B
37. C
38. A
39. D

B. Attitude Inventory

40. +\textsuperscript{a}
41. +
42. +
43. -
44. -
45. -
46. -
47. -
48. -
49. -
50. +
51. +
52. +
53. -
54. -
55. -

\textsuperscript{a}Positive sign (+) indicates items worded positively; negative sign (-) indicates items worded negatively. Such items were recoded accordingly.
APPENDIX C.

COVER LETTERS FOR QUESTIONNAIRE
November 20, 1985

Dear Student:

You have been selected to participate in a study to examine the knowledge, experiences, and attitudes of senior high school home economics students, their home economics teachers, and parents/guardians toward consumer education. A purpose of the study is to make recommendations for expanding the scope of the home economics curriculum in senior comprehensive schools. Your participation, which involves completing this instrument, is voluntary. Your responses to the questions will be confidential.

The instrument has four parts. Part A is a test of your knowledge of consumer education; Part B is related to your attitude toward consumer education; Part C asks about your experiences in consumer education; Part D requests information which will be used for group analysis of the results. We are not interested in individual scores, therefore, do not write your name on any of the pages. The code number on the instrument is only to help match students, parents, and teacher responses when the data are analyzed.

Directions for completing the instrument are included with each section. Please read the directions carefully before you begin each section.

We appreciate your participation and thank you for your cooperation.

Sincerely,

Ruth P. Hughes, Head
Home Economics Education
Iowa State University

Theodora E. Alexander
Graduate Research Assistant
Home Economics Education
Iowa State University
November 20, 1985

Dear Parent/Guardian:

The school your child attends has been selected to participate in a study to examine the knowledge, experiences, and attitudes of senior high school home economics students, their home economics teachers, and parents/guardians toward consumer education. The purpose of this study is to make recommendations for home economics curriculum in senior comprehensive schools and consumer education programs for adults in the community. As a parent/guardian, your cooperation is requested.

We will appreciate your spending some time to complete the instrument. It is quite similar to the one your child completed at school. We wish to inform you that your participation is voluntary, and to assure you that all information you provide will be held in confidence. Please do not write your name on any of the pages. The code number on the instrument is only to help match student responses with the responses of their parents/guardians and home economics teachers when the data are analyzed.

Directions for completing the instrument are included with each section. Please read the directions carefully before you begin each section.

After you have completed answering all the questions, please place the completed instrument in the envelope provided and return it to the home economics teacher no later than two days after you receive it.

We greatly appreciate your help, and thank you for your cooperation.

Sincerely,

Ruth P. Hughes, Head
Home Economics Education
Iowa State University

Theodora E. Alexander
Graduate Research Assistant
Home Economics Education
Iowa State University
November 20, 1985

Dear Home Economics Teacher:

You have been selected to participate in a study to examine the knowledge, experiences, and attitudes of senior high school home economics students, their home economics teachers, and parents/guardians toward consumer education. The purpose of this study is to make recommendations for integrating consumer education concepts into the home economics curricula of senior comprehensive schools and teachers' colleges, and for initiating consumer education courses as part of adult/continuing education efforts. To date, no such study exists for Trinidad and Tobago, and thus, the findings should prove useful. As a home economics teacher in a senior comprehensive school, your cooperation is requested.

Your completion of the questions will indicate to us your willingness to take part in the study. We wish to inform you that your participation is voluntary, and to assure you that all information you provide will be confidential. Please do not write your name on any of the pages. The code number on the instrument is only to help match student responses with the responses of their parents/guardians and home economics teachers when the data are analyzed.

Directions for completing the instrument are included with each section. Please read the directions carefully before you begin each section.

We appreciate your participation and thank you for your cooperation.

Sincerely,

Ruth P. Hughes, Head
Home Economics Education
Iowa State University

Theodora E. Alexander
Graduate Research Assistant
Home Economics Education
Iowa State University
APPENDIX D.

CORRESPONDENCE: CONSUMER EDUCATION RESEARCH
July 8, 1985

Maurice Chin Aleong
Office of the Permanent Secretary
Ministry of Education
Alexandra Street, St. Clair
Port-of-Spain, Trinidad
Republic of Trinidad and Tobago

Dear Mr. Chin Aleong:

With reference to your letter dated 4th April, 1985, I am very pleased that the Ministry of Education is willing to accommodate Theodora Alexander's request to collect data for her doctoral degree requirement in her home country. Ms. Alexander, however, would appreciate further discussion on the extent to which her proposed study could be incorporated in the Ministry of Education's planned research program, as mentioned in your letter.

Ms. Alexander will be returning to Trinidad and Tobago during the second week in July to confer with the appropriate people about her proposed study and how best she can satisfy the needs of the Ministry of Education. As a result, I am having her bring this letter.

In order to develop her research plan she will need a listing of high schools which offer home economics in their curriculum to 4th and 5th Form students, the size of each school (in terms of total enrollment numbers), the names and school addresses of principals and home economics teachers attached to those schools, and the approximate number of students in each 4th and 5th Form home economics class. We have discussed this proposed study with a statistical expert, and in order to determine her procedure for sample selection, Ms. Alexander must be familiar with the way in which secondary schools in the country are divided up. During her visit, she will explain these requirements further.

It might be helpful to have someone in the Ministry of Education look at her draft of the kinds of questions she wishes to ask in her questionnaire, if you think this is necessary. It will be very helpful if Ms. Alexander is given the cooperation necessary to make this venture worthwhile and successful.
Thank you for considering this matter. We are most appreciative of your interest in this research and hope that it can be incorporated as a part of your proposed work.

Sincerely yours,

Ruth P. Hughes
Distinguished Professor in Home Economics
Head, Home Economics Education

RPH/ gb

cc: Theodora Alexander

Mrs. Theodora Alexander,
4125 Buchanan Hall,
Ames, Iowa 50013.

Dear Mrs. Alexander,

In response to your application of July 17, 1985, approval is hereby granted for you to collect data from selected Senior Comprehensive Schools for your research study on consumer education.

It is understood that at this time you have not decided on specifically which schools will be involved in your study. As soon as you have selected the schools for your sample and have decided on exactly how many students from each school will be involved, please submit this information to our Ministry so that you can be given a letter of introduction to the Principals of the schools.

We wish to inform you that approval is granted on two conditions:

a) that your research procedures do not significantly disrupt the smooth functioning of the school; and

b) that you should submit to this office a copy of your research findings upon completion of your research.

On behalf of the Ministry of Education we wish to express our gratitude for your selection of the schools of Trinidad and Tobago as the focus of your research. Best wishes are extended to you on your educational and research endeavours.

Yours sincerely,

TECHNICAL VOCATIONAL EDUCATION AND TRAINING DIVISION.

Clyde Maurice,
Acting Director.

Director of Schools Supervision.

Carbon copy to the D.S.S.
Ministry of Education..... Department
Alexandra Street, St. Clair.....
22nd November............ 19.85...

Dear Principal,

Approval has been granted for Ms Theodora Alexander to conduct a survey in a number of Senior Comprehensive Schools in the area of Consumer Education.

Ms Alexander will be visiting the following schools before the close of the present term to conduct the survey.

The schools are:

1. Halick Senior Comprehensive
2. El Dorado Senior Comprehensive
3. Chaguana Senior Comprehensive
4. Marabella Senior Comprehensive
5. Pryabad Senior Comprehensive
6. Rio Claro Senior Comprehensive
7. Signal Hill Senior Comprehensive, Tobago

I shall be grateful for your usual cooperation.

With thanks,

Yours faithfully,

[Signature]

Ralph Attong
Director of School Supervision (Ag)
October 18, 1985

Dear School Supervisor:

The Department of Home Economics Education at Iowa State University is interested in having students from international countries conduct research in their own home country. The data collected are then used for the benefit of the home country. The Ministry of Education, Trinidad and Tobago, has granted its approval for such a study to be conducted in selected senior comprehensive schools in Trinidad and Tobago. The study is designed to examine the knowledge, experiences, and attitudes of senior high school home economics students, their home economics teachers, and parents/guardians toward consumer education.

The purpose of this study is to make recommendations for integrating consumer education and management concepts into the home economics curricula of senior comprehensive schools and teachers' colleges, and for initiating consumer education courses as part of adult/continuing education efforts. Currently, no such study exists for Trinidad and Tobago, and thus, the findings should prove useful for curriculum developers.

Theodora Alexander, a graduate student in Home Economics Education, will be collecting the data for this study. Theodora, a citizen of Trinidad and Tobago, has years of experience as a high school home economics teacher. During November to December, 1985, Ms. Alexander will be visiting selected senior comprehensive schools in Trinidad and Tobago to collect data from 4th and 5th-Form home economics students, their home economics teachers and parents/guardians. The principal of the school(s) selected will soon be contacted by letter explaining the purpose of the study and the procedure to be followed for data collection.

As schools curriculum supervisor attached to senior comprehensive schools, we are sure you recognize the importance of this activity. As far as possible, we shall try to coordinate the activity with regular classwork, and protect the rights of human subjects. Your
involvement will be kept to a minimum. We wish to inform you that Rio Claro Senior Comprehensive under your supervision has been randomly selected to participate in the study, and to request your support for this venture.

If additional information is needed, please contact me immediately.

Sincerely,

Ruth P. Hughes, Head
Home Economics Education
Iowa State University

Theodora E. Alexander
Graduate Research Assistant
Home Economics Education
Iowa State University
September 26, 1985

Dear

The Department of Home Economics Education at Iowa State University, with the approval of the Ministry of Education in Trinidad and Tobago, is conducting a study in Senior Comprehensive secondary schools in Trinidad and Tobago. The study is designed to examine the knowledge, attitudes, and experiences of 4th and 5th Form home economics students, their parents, and home economics teachers relating to consumer education. The purpose of the study is to make recommendations for integrating consumer education content into the home economics curriculum of senior comprehensive schools and teachers' training colleges, and for including courses on consumer education and management in adult/continuing education programs.

The project itself will be carried out in November 1985. Theodora Alexander, a home economics teacher from Trinidad and Tobago, will collect data for the study. We are now trying out the instrument. We are hoping that all the home economics teachers in your school, as well as home economics students in the fourth and fifth Forms will be willing to participate in the trial use of the proposed questions.

Enclosed are copies for 4th and 5th Form home economics students, all home economics teachers and students' parents.

Would you please do the following:

1. Examine the inventory and determine whether the directions for various parts are likely to be understood by the students, parents and teachers who will respond to it later.

2. Read the directions and statements/questions and indicate words or statements which you think are confusing or hard to understand.

3. Follow the directions and complete the inventory. At the same time, ask your students to do likewise. Ask all the other home economics teachers in your school to do the same.

4. Make note of any questions students ask.
5. Let us know if you think the format is easy to use.

6. Estimate the amount of time required to complete the inventory.

7. Comment on the length of the inventory, whether there are too many items, or whether the items are appropriate.

If possible, please complete the inventory within the next few days. Your cooperation is greatly appreciated. Thank you for your help.

Sincerely,

Ruth P. Hughes, Head
Home Economics Education
Iowa State University

Theodora E. Alexander
Graduate Assistant
Home Economics Education
Iowa State University

Enclosures
APPENDIX E.

HUMAN SUBJECTS APPROVAL
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): Consumer Education Knowledge, Attitude, and Experiences of selected groups in Trinidad and Tobago: Basis for curriculum

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.

   Theodora E. Alexander 8/19/85
   Typed Name of Principal Investigator   Date   Signature of Principal Investigator

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

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 (see attachment)

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.
   [X] Modified informed consent will be obtained.

6. Anticipated date on which subjects will be first contacted: 11 11 85

   Anticipated date for last contact with subjects: 12 13 85

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

   N/A

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

   K. I. Hughes 9/17/85 Home Economics Education

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

   [X] Project Approved   [ ] Project not approved   [ ] No action required

   George G. Karas 9/17/85

   Name of Committee Chairperson   Date   Signature of Committee Chairperson
APPENDIX F.

TABLE OF SPECIFICATIONS
### Table F.1. Table of specifications for Consumer Education Inventory (items by major concept areas and subconcepts)

<table>
<thead>
<tr>
<th>Concept areas</th>
<th>Item numbers</th>
<th>Knowledge</th>
<th>Attitude</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Values underlying education for consumption</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Influence of value systems, cultural back­ground, socioeconomic situations, and life cycle stages on consumer choices</td>
<td>1</td>
<td>40, 42</td>
<td>57, 67</td>
<td></td>
</tr>
<tr>
<td>2. Impact of one's consumption on others and the environment</td>
<td>2</td>
<td>41</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>3. Quality of life and material possessions</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Quality of life and integration of consumer choices</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>II. Consumption: An expression of life style</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Effect of consumer choices on life style</td>
<td>5</td>
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<td></td>
<td></td>
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<tr>
<td>2. Change in life style due to external forces, with resultant change in consumption pattern</td>
<td>6</td>
<td>43</td>
<td></td>
<td></td>
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<tr>
<td><strong>III. Consumer decision making</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>1. Interrelated consumer decisions</td>
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<td></td>
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<tr>
<td>2. Choice of goods and services needed presently to achieve maximum personal satisfaction</td>
<td>8, 9</td>
<td>44, 45</td>
<td>61, 61, 72</td>
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</tr>
<tr>
<td>3. Knowledge of public goods and services</td>
<td>10</td>
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<td></td>
<td></td>
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<tr>
<td>4. Influence of resource availability on consumer decisions</td>
<td>11</td>
<td>46</td>
<td>59</td>
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<td>5. Change in resource availability over time</td>
<td>12, 28</td>
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<td></td>
<td>70</td>
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### Table F.1. Continued

<table>
<thead>
<tr>
<th>Concept areas</th>
<th>Knowledge</th>
<th>Attitude</th>
<th>Experience</th>
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</thead>
</table>

**IV. Consumer information:**
- Location, evaluation, processing
  1. Decision making without complete information 13,14
  2. Evaluation of consumer information and its sources 15, 47, 62, 63
  3. Effects of advertising on consumer freedom of choice and cost of selling 16, 17, 55
  4. Necessary, pertinent, and readily available consumer information 29, 30, 49, 64

**V. Change and the consumer**
- Change as a normal condition 18, 19
- Change and decisions of risk and uncertainty 20
- Handling financial risk 21, 22, 73

**VI. Consumers and the economic environment**
- Consumers' role and responsibility in influencing the availability of goods and services 23, 24, 50, 68, 69
- Influence of production, distribution, and selling costs on consumer price 25, 26, 48
- Market competition and its effects on consumer prices, variety of goods and services, and amount of innovation 27
- Government's role in the marketplace 38, 39, 54, 58
## Table F.1. Continued

<table>
<thead>
<tr>
<th>Concept areas</th>
<th>Knowledge</th>
<th>Attitude</th>
<th>Experience</th>
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<tbody>
<tr>
<td><strong>VII. Consumer rights and responsibilities</strong></td>
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</tr>
<tr>
<td>1. Right to adequate information</td>
<td>31</td>
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<tr>
<td>2. Right to, and responsibility for, relatively safe products and services</td>
<td>32,33</td>
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<tr>
<td>3. Right to effectively communicate satisfaction/dissatisfaction with products/services to appropriate persons or places</td>
<td>34,35</td>
<td>52,53</td>
<td>65,66</td>
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<tr>
<td>4. Responsibility for making judicious choices</td>
<td>36</td>
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<td>5. Responsibility for changing undesirable conditions in the marketplace</td>
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<td><strong>Total items</strong></td>
<td>39</td>
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APPENDIX G.
CHARACTERISTICS OF SAMPLE
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<th>Variables</th>
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<tr>
<td>Age (as of last birthday):</td>
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<td></td>
</tr>
<tr>
<td>14 years</td>
<td>92</td>
<td>22</td>
</tr>
<tr>
<td>15 years</td>
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<tr>
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<tr>
<td>Just outside city/town</td>
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<td>Village/country area</td>
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<tr>
<td>Monthly spending money:</td>
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<tr>
<td>Business studies</td>
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Table G.2. Parent characteristics (N=285)

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<td>10</td>
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<tr>
<td>25 to 34 years</td>
<td>50</td>
<td>18</td>
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<tr>
<td>35 to 44 years</td>
<td>137</td>
<td>48</td>
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<td>45 to 54 years</td>
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<td>55 years or over</td>
<td>20</td>
<td>7</td>
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<td><strong>Level of education:</strong></td>
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<tr>
<td>Trade or technical</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td>Teachers' college</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>University</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td><strong>Sex:</strong></td>
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<td></td>
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</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>City/town</td>
<td>32</td>
<td>11</td>
</tr>
<tr>
<td>Just outside city/town</td>
<td>69</td>
<td>24</td>
</tr>
<tr>
<td>Village/country area</td>
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<td>65</td>
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<td><strong>Monthly income of family:</strong></td>
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<tr>
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<td>50</td>
<td>18</td>
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<td>$1,000 to $2,000</td>
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<td>11</td>
<td>4</td>
</tr>
<tr>
<td>$3,000 to $3,500</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Over $3,500</td>
<td>20</td>
<td>7</td>
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<tr>
<td><strong>Occupation of family breadwinner:</strong></td>
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</tr>
<tr>
<td>Unemployed</td>
<td>59</td>
<td>21</td>
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<tr>
<td>Member of defense force</td>
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<td>2</td>
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<tr>
<td>Production worker</td>
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<tr>
<td>Agriculture/forestry/fishery</td>
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<td>Service worker</td>
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<td>Sales worker</td>
<td>17</td>
<td>6</td>
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<tr>
<td>Clerical worker</td>
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<tr>
<td>Administrative/managerial</td>
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<td>Number of children in family:</td>
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<tr>
<td>1 child</td>
<td>14</td>
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<tr>
<td>2-4 children</td>
<td>110</td>
<td>39</td>
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<td>5-7 children</td>
<td>110</td>
<td>39</td>
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<tr>
<td>8-10 children</td>
<td>31</td>
<td>11</td>
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<tr>
<td>&gt;10 children</td>
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### Table G.3. Teacher characteristics (N=22)

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<td><strong>Age group:</strong></td>
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<tr>
<td>Under 25 years</td>
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<tr>
<td>25 to 34 years</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>9</td>
<td>41</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>7</td>
<td>31</td>
</tr>
<tr>
<td>55 years or over</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Academic qualification:</strong></td>
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<td></td>
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<td>John Donaldson Technical certificate</td>
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<tr>
<td>City and guilds</td>
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<td>9</td>
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<tr>
<td>Teacher's diploma</td>
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<tr>
<td>Bachelor's degree</td>
<td>2</td>
<td>9</td>
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<tr>
<td>Master's degree</td>
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<td>5</td>
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<tr>
<td><strong>Sex:</strong></td>
<td></td>
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<tr>
<td>Male</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>Female</td>
<td>18</td>
<td>82</td>
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<td></td>
</tr>
<tr>
<td>City/town</td>
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<td>14</td>
</tr>
<tr>
<td>Just outside city/town</td>
<td>12</td>
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</tr>
<tr>
<td>Village/country area</td>
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<td>5</td>
</tr>
<tr>
<td>$2,500 to $3,000</td>
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</tr>
<tr>
<td>$3,000 to $3,500</td>
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<td>22</td>
</tr>
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<td>Over $3,500</td>
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<td><strong>Total years of teaching experience:</strong></td>
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<tr>
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<td>14</td>
</tr>
<tr>
<td>5 to 10 years</td>
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<td>5</td>
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<td>15 to 20 years</td>
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<td>20 to 30 years</td>
<td>5</td>
<td>22</td>
</tr>
<tr>
<td>Over 30 years</td>
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<td>9</td>
</tr>
<tr>
<td><strong>Years of home economics teaching:</strong></td>
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<td></td>
</tr>
<tr>
<td>Less than 5 years</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>5 to 10 years</td>
<td>8</td>
<td>36</td>
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<td>6</td>
<td>27</td>
</tr>
<tr>
<td>15 to 20 years</td>
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<td>18</td>
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<tr>
<td>20 to 30 years</td>
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APPENDIX H.

FREQUENCIES AND PERCENTAGES FOR RESPONSES
TO INDIVIDUAL ITEMS ON EXPERIENCES
IN CONSUMER EDUCATION CONCEPTS
Table H.1. Frequencies and percentages for responses to individual items on experiences in consumer education concepts

<table>
<thead>
<tr>
<th>Experience item</th>
<th>Students (N=413)</th>
<th>Parents (N=285)</th>
<th>Teachers (N=22)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Some-</td>
<td>Some-</td>
<td>Some-</td>
</tr>
<tr>
<td></td>
<td>Never n %</td>
<td>times n %</td>
<td>Always n %</td>
</tr>
<tr>
<td>I. Values underlying education for consumption:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consider effects on the environment</td>
<td>69 17 257 62 86 21</td>
<td>43 15 180 63 61 21</td>
<td>5 23 13 59 4 18</td>
</tr>
<tr>
<td>Consider values and goals in spending decisions</td>
<td>45 11 175 42 193 47</td>
<td>15 5 99 35 169 59</td>
<td>11 50 11 50</td>
</tr>
<tr>
<td>II. Consumer decision making:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make spending plan</td>
<td>56 14 30 7 327 79</td>
<td>16 6 14 5 254 89</td>
<td>1 5 1 5 20 90</td>
</tr>
<tr>
<td>Plan ahead for important items</td>
<td>32 8 202 49 178 43</td>
<td>7 2 102 36 173 61</td>
<td>10 45 12 55</td>
</tr>
<tr>
<td>Save for special purposes</td>
<td>23 6 167 40 221 54</td>
<td>6 2 128 45 149 52</td>
<td>2 9 9 41 11 50</td>
</tr>
<tr>
<td>III. Consumer information:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Read product labels</td>
<td>12 3 145 35 255 62</td>
<td>6 2 88 31 185 65</td>
<td>8 36 14 64</td>
</tr>
<tr>
<td>IV. Consumer and the economic environment:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Make credit purchases</td>
<td>241 58 63 15 106 26</td>
<td>91 32 91 41 68 24</td>
<td>15 68 5 23 2 9</td>
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</table>
### Table H.1. Continued

<table>
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<tr>
<th>Experience item</th>
<th>Students (N=413)</th>
<th>Parents (N=285)</th>
<th>Teachers (N=22)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Some-</td>
<td>Always</td>
</tr>
<tr>
<td>Consider total cost of credit</td>
<td>132</td>
<td>32</td>
<td>186</td>
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<td>V. Consumer rights and responsibilities:</td>
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<td></td>
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</tr>
<tr>
<td>Make price-quality comparisons</td>
<td>25</td>
<td>6</td>
<td>176</td>
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<tr>
<td>Complain about faulty products</td>
<td>152</td>
<td>37</td>
<td>139</td>
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<tr>
<td>Report unfair practices</td>
<td>311</td>
<td>75</td>
<td>69</td>
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APPENDIX I.

FREQUENCIES AND PERCENTAGES FOR EXPERIENCE ITEMS WITH "YES/NO" RESPONSES FOR STUDENTS, PARENTS, AND TEACHERS
Table I.1. Frequencies and percentages for experience items with "Yes/No" responses for students, parents, and teachers

<table>
<thead>
<tr>
<th>Experience items</th>
<th>Students (N=413)</th>
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<th>Teachers (N=22)</th>
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</thead>
<tbody>
<tr>
<td>Opened savings or checking account</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>146 35 264 64</td>
<td>18 10 248 87</td>
<td>1 5 21 95</td>
</tr>
<tr>
<td>Items saved for:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing and cosmetics</td>
<td>258 63 155 38</td>
<td>233 82 47 17</td>
<td>18 82 3 14</td>
</tr>
<tr>
<td>Recreation</td>
<td>347 84 66 16</td>
<td>269 94 11 4</td>
<td>20 91 1 5</td>
</tr>
<tr>
<td>Entertainment</td>
<td>382 93 31 8</td>
<td>226 79 54 19</td>
<td>18 82 3 14</td>
</tr>
<tr>
<td>Sports equipment</td>
<td>382 93 31 8</td>
<td>271 95 9 3</td>
<td>20 91 1 5</td>
</tr>
<tr>
<td>Vehicle</td>
<td>399 97 14 3</td>
<td>235 83 45 16</td>
<td>8 36 13 59</td>
</tr>
<tr>
<td>Home purchase, repair/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>construction</td>
<td>399 97 14 3</td>
<td>154 54 126 44</td>
<td>4 18 17 77</td>
</tr>
<tr>
<td>Future education</td>
<td>376 91 37 9</td>
<td>233 82 47 17</td>
<td>11 50 10 45</td>
</tr>
<tr>
<td>Transportation</td>
<td>364 88 49 12</td>
<td>236 83 44 15</td>
<td>18 82 3 14</td>
</tr>
<tr>
<td>Gifts</td>
<td>240 58 173 42</td>
<td>251 88 29 10</td>
<td>15 68 6 27</td>
</tr>
<tr>
<td>Insurance</td>
<td>403 98 8 2</td>
<td>243 85 36 13</td>
<td>18 82 3 14</td>
</tr>
<tr>
<td>Applied for loan from:</td>
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<tr>
<td>Junior cooperative</td>
<td>378 92 34 8</td>
<td>276 97 3 1</td>
<td>22 100 10 1</td>
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<tr>
<td>Credit union</td>
<td>376 91 36 9</td>
<td>229 80 50 18</td>
<td>14 64 8 36</td>
</tr>
<tr>
<td>Commercial bank</td>
<td>357 86 55 13</td>
<td>186 65 93 33</td>
<td>5 23 17 77</td>
</tr>
<tr>
<td>Finance company</td>
<td>401 97 11 3</td>
<td>272 95 7 3</td>
<td>20 91 2 9</td>
</tr>
<tr>
<td>Life insurance company</td>
<td>390 94 22 5</td>
<td>262 92 17 6</td>
<td>17 77 5 23</td>
</tr>
<tr>
<td>Savings and loan co.</td>
<td>398 96 14 3</td>
<td>261 92 18 6</td>
<td>20 91 2 9</td>
</tr>
</tbody>
</table>

Source of reliable consumer information:

| Radio         | 42 10 | 28 10 | 2 9  |
| Television    | 141 34| 84 30 | -    |
| Newspaper     | 122 30| 115 40| 11 50|
| Parent/guardian| 40 10 | 7 3  | -    |
| Friends       | 20 5  | 9 3  | 4 18 |
| Government publications | 45 11 | 37 13 | 5 23 |

Sources of information on financial management:

| Parents/guardians | 116 28 | 36 13 | -    |
| Friends           | 19 5  | 11 4  | 1 5  |
| Own experience    | 80 19 | 144 51| 12 55|
Table I.1. Continued

<table>
<thead>
<tr>
<th>Experience items</th>
<th>Students (N=413)</th>
<th>Parents (N=285)</th>
<th>Teachers (N=22)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Classes taken</td>
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</tr>
<tr>
<td>Advertisements</td>
<td>21</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>Bank employees</td>
<td>32</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td>Purchase insurance:</td>
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</tr>
<tr>
<td>Automobile insurance</td>
<td>389</td>
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<td>14</td>
</tr>
<tr>
<td>Home insurance</td>
<td>374</td>
<td>91</td>
<td>29</td>
</tr>
<tr>
<td>Life insurance</td>
<td>338</td>
<td>82</td>
<td>65</td>
</tr>
<tr>
<td>Medical/health</td>
<td>356</td>
<td>86</td>
<td>47</td>
</tr>
</tbody>
</table>
APPENDIX J.

ITEM FACTOR ASSIGNMENTS BY HIGHEST FACTOR LOADING
Table J.1. Item factor assignments by highest factor loading

<table>
<thead>
<tr>
<th>Item</th>
<th>Loading</th>
</tr>
</thead>
</table>
  Alpha reliability coefficient = .71 |         |
| 40   | .45     |
| 42   | .45     |
| 49   | .30     |
| 51   | .63     |
| 52   | .67     |
| 54   | .58     |
| 55   | .46     |
| Factor 2. Consumer and resource management.  
  Alpha reliability coefficient = .61 |         |
| 43   | .39     |
| 44   | .34     |
| 45   | .50     |
| 46   | .43     |
| 47   | .58     |
Table J.1. Continued

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>The price of an item is the best indicator of the quality of the item.</td>
<td>.38</td>
</tr>
<tr>
<td>53</td>
<td>There is nothing a person can do to promote improved locally made products.</td>
<td>.45</td>
</tr>
<tr>
<td></td>
<td><strong>Factor 3. Consumer and the societal environment.</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alpha reliability coefficient = .56</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Each person's use of goods and services affects the environment we live in.</td>
<td>.46</td>
</tr>
<tr>
<td>50</td>
<td>What each person does with his/her money affects the country's economy.</td>
<td>.56</td>
</tr>
</tbody>
</table>
APPENDIX K.

SCHOOLS IN PILOT STUDY
<table>
<thead>
<tr>
<th>Name of school</th>
<th>No. of respondents</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students</td>
<td>Parents</td>
<td>Teachers</td>
<td>Total</td>
</tr>
<tr>
<td>Tranquility Government</td>
<td>12</td>
<td>11</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Secondary School</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diego Martin Government</td>
<td>30</td>
<td>27</td>
<td>3</td>
<td>60</td>
</tr>
<tr>
<td>Secondary School</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>38</td>
<td>5</td>
<td>85</td>
</tr>
</tbody>
</table>
APPENDIX L.

SCHOOLS IN MAIN STUDY
Table L.1. Schools in main study

<table>
<thead>
<tr>
<th>Senior comprehensive high school</th>
<th>Sample size</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students</td>
<td>Parents</td>
<td>Teachers</td>
</tr>
<tr>
<td>Chaguanas</td>
<td>60 (60)^a</td>
<td>60 (43)</td>
<td>6 (4)</td>
</tr>
<tr>
<td>El Dorado</td>
<td>54 (54)</td>
<td>54 (33)</td>
<td>3 (2)</td>
</tr>
<tr>
<td>Fyzabad</td>
<td>58 (58)</td>
<td>58 (47)</td>
<td>9 (5)</td>
</tr>
<tr>
<td>Malick</td>
<td>43 (43)</td>
<td>43 (19)</td>
<td>8 (3)</td>
</tr>
<tr>
<td>Marabella</td>
<td>79 (79)</td>
<td>79 (65)</td>
<td>6 (6)</td>
</tr>
<tr>
<td>Rio Claro</td>
<td>51 (51)</td>
<td>51 (41)</td>
<td>2 (2)</td>
</tr>
<tr>
<td>Signal Hill</td>
<td>68 (68)</td>
<td>68 (42)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Total</td>
<td>413 (413)</td>
<td>413 (290)</td>
<td>35 (23)</td>
</tr>
</tbody>
</table>

^aNumbers in parentheses indicate the number of subjects who returned the questionnaire.
APPENDIX M.
CODING PLAN FOR DEMOGRAPHIC VARIABLES
Coding Plan for Demographic Variables

for Student Analysis

Sex:
1 = male
2 = female

Place of residence:
1 = rural
2 = suburban
3 = urban

Grade level:
1 = 11th grade
2 = 12th grade

Age:
1 = 14 years
2 = 15 years
3 = 16 years
4 = 17 years
5 = 18 years
6 = 19 years

Amount of spending money received monthly:
0 = no spending money
1 = less than $20
2 = $20 to $40
3 = $40 to $60
4 = $60 to $80
5 = $80 to $100
6 = more than $100

Source of spending money:
1 = mother
2 = father
3 = part-time job/work
4 = friends/nonrelatives
5 = relatives

Courses taken:
0 = No
1 = Yes

- Economics
- Business studies
- Social studies
- Clothing and textiles
- Food and nutrition
- Home management
- Mathematics
Coding Plan for Demographic Variables
for Parent Analysis

Sex:
1=male
2=female

Place of residence:
1=rural
2=suburban
3=urban

Level of education:
1=elementary
2=high school
3=trade/technical
4=teachers' college
5=university

Age group:
1=under 25 years
2=25-34 years
3=35-44 years
4=45-54 years
5=55 and over

Monthly income of family:
1=less than $500
2=$500 to $1,000
3=$1,000 to $2,000
4=$2,000 to $2,500
5=$2,500 to $3,000
6=$3,000 to $3,500
7=over $3,500

Occupation of family breadwinner:
1=unemployed
2=member of defense force
3=production worker
4=agricultural/fisherman/hunter
5=service worker
6=sales worker
7=clerical worker
8=administrative/managerial worker
9=professional/technical worker
Number of children in family:
1=1 child
2=2-4 children
3=5-7 children
4=8-10 children
5=more than 10 children
Coding Plan for Demographic Variables for Teacher Analysis

Sex:
1=male
2=female

Place of residence:
1=rural
2=suburban
3=urban

Academic qualification:
1=G.C.E. or C.X.C. certificate
2=John Donaldson technical certificate
3=city and guilds
4=teachers' diploma
5=bachelor's degree
6=master's degree

Age group:
1=under 25 years
2=25-34 years
3=35-44 years
4=45-54 years
5=55 and over

Monthly income of family:
1=less than $500
2=$500 to $1,000
3=$1,000 to $2,000
4=$2,000 to $2,500
5=$2,500 to $3,000
6=$3,000 to $3,500
7=over $3,500

Total years of teaching experience:
1=less than 5 years
2=5-10 years
3=10-15 years
4=15-20 years
5=20-30 years
6=over 30 years
Years of home economics teaching:
1 = less than 5 years
2 = 5–10 years
3 = 10–15 years
4 = 15–20 years
5 = 20–30 years
6 = over 30 years