

**STUDENTS' PARTICIPATION IN THE MARKETING EDUCATION PROGRAM:
THE RELATIVE EFFECTS OF TANGIBLE VERSUS SYMBOLIC FACTORS**

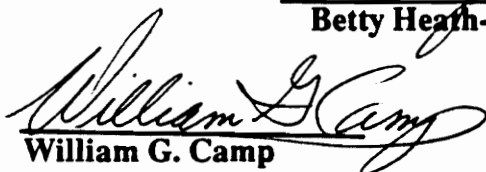
BY

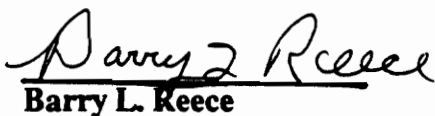
MARIA K. GRAMMATIKAKI-HATZIOS

**Dissertation submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of
DOCTOR OF EDUCATION
in
Vocational and Technical Education**

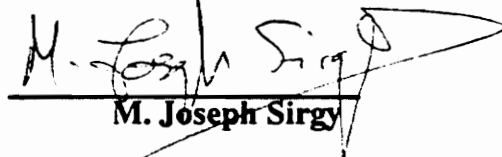
APPROVED:


Betty Heath-Camp, Chairperson


William G. Camp


Barry L. Reece


Noreen M. Klein


M. Joseph Sirgy

November, 1990

Blacksburg, Virginia

c.2

LD
5055
V856
1990
G736
c.2

STUDENTS' PARTICIPATION IN THE MARKETING EDUCATION PROGRAM:
THE RELATIVE EFFECTS OF TANGIBLE VERSUS SYMBOLIC FACTORS

by

Maria K. Grammatikaki-Hatzios

(ABSTRACT)

The purpose of the present study was to find out which of the two types of attributes of the marketing education program (at the high school level), tangible or symbolic, have the greatest influence on student interest in enrolling in the program. The findings will help program planners to develop appealing and workable promotional campaigns. In addition, the results of this study will also assist in modifying existing aspects of the program that will facilitate in attracting and retaining appropriate students.

The methodology involved the usage of two models, the ideal social self-image congruence model and the Bass-Talarzyk attitude model. The first model was used to measure ideal social self-image (the symbolic attributes), where the second one measured the belief/importance variables (the tangible attributes).

The instrument used was a questionnaire which was mailed to equal numbers of marketing education students and non-marketing education students in Virginia. A preliminary study was also conducted in which two focus group interviews took place utilizing thirty high school students at two local high schools. The students were asked to respond to questions regarding the tangible and symbolic attributes of the marketing education program at their schools.

Multiple regression procedures were used to analyze the data. The findings showed that students are influenced more by the tangible attributes and to a lesser, but significant degree, by the symbolic attributes of the program in relation to their attitudes toward the marketing education program. The non-marketing students were influenced significantly by the symbolic attributes of the program, where as the marketing students were not.

It is recommended that an effective promotional campaign be designed which will emphasize the important tangible and symbolic attributes of the program that were found in this study. In addition, the "college-preparation" attribute of the program should be emphasized in the campaign. The promotional campaign should be aimed at the students, teachers, parents, and counselors. Also, the important program attributes found in the study should be used to redesign some aspects of the program, in order to achieve higher program quality.

ACKNOWLEDGMENTS

My appreciation and gratitude are extended to Dr. Betty Heath-Camp, my doctoral advisor. She was always encouraging me, advising me, and supporting me in every way throughout this study, with genuine interest. Her professional guidance as well as her friendship made this task an easier one.

I would also like to extend many thanks and appreciation to Dr. William Camp and Dr. M. Joseph Sirgy for spending many hours with me, sharing their expertise, and providing me with professional guidance and encouragement. Many thanks are also extended to Dr. Noreen Klein and Dr. Barry Reece, my other committee members, for their valuable comments and continuous support.

In addition, many thanks and gratitude are extended to the marketing education teachers in Virginia. Their support, and willingness to participate in this study made this dissertation a reality.

Finally, this study would not have been possible without the love and emotional support of my husband Kriton, my daughters Ada and Stavroula, and my mother Diamondo. Kriton was continuously providing me with professional guidance and encouragement. Also, my love and appreciation go to my best friends Anna and Jim Havelos, and Yianni Bessieris for their encouragement, continuous support, and valuable friendship throughout this endeavor.

In memory of my father
Stavro

TABLE OF CONTENTS

ABSTRACT.....	ii
AKNOWLEDGMENTS.....	iv
LIST OF TABLES.....	x
CHAPTER	
I. BACKGROUND OF THE PROBLEM.....	1
Statement of the Problem.....	5
Rational for the Study.....	7
Assumptions.....	8
Limitations.....	8
Definitions.....	8
II. REVIEW OF RELATED LITERATURE.....	12
Literature Review Concerning Marketing Education..	12
Literature Concerning Self-Image Congruence.....	17
Literature Concerning Attitude.....	20
Consistency Theories.....	21
Learning Theories.....	23
III. RESEARCH METHODS.....	26
Design.....	27
Preliminary Procedure.....	27
Population and Sample.....	28
Instrumentation.....	30
Measures of Symbolic Factors.....	30
Measures of Tangible Factors and Attitude.....	32
Analysis of Data.....	34

IV. ANALYSIS OF DATA.....	36
Findings.....	39
Research Question 1.....	40
Research Question 2.....	41
Research Question 3.....	43
Research Question 4.....	43
Research Question 5.....	45
Research Question 6.....	46
Relationship of Social Class and Students' Attitudes Toward the Marketing Education Program.....	53
Relationship of Gender and Students' Attitudes Toward the Marketing Education Program.....	56
Findings of the Qualitative Analysis.....	58
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS.....	59
Summary of the Study.....	59
Summary of Findings.....	64
Conclusions.....	70
Recommendations.....	74
Suggestions for Future Research.....	79
Discussion.....	80
REFERENCES.....	88
APPENDICES.....	97
A. PERMISSION LETTER FOR FOCUS GROUP INTERVIEW.....	98
B. GENERALIZED ABSOLUTE DIFFERENCE MODEL.....	100
C. QUESTIONNAIRE.....	102
D. FOCUS GROUP SURVEY FORMS.....	108

E.	ANALYSIS OF FOCUS GROUP DATA.....	111
F.	PERMISSION LETTER TO THE SUPERINTENDENTS.....	114
G.	LETTER TO THE MARKETING EDUCATION TEACHERS.....	116
H.	SURVEY INSTRUCTIONS TO THE MARKETING EDUCATION TEACHERS.....	118
I.	FOR MARKETING STUDENTS: MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL AND SELF-IMAGE CONGRUITIES PEARSON CORRELATION COEFFICIENTS AMONG FUNCTIONAL CONGRUITIES AND ATTITUDE PEARSON CORRELATION COEFFICIENTS AMONG SELF-IMAGE CONGRUITIES AND ATTITUDE.....	120
J.	FOR NON-MARKETING STUDENTS: MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL AND SELF-IMAGE CONGRUITIES PEARSON CORRELATION COEFFICIENTS AMONG FUNCTIONAL CONGRUITIES AND ATTITUDE PEARSON CORRELATION COEFFICIENTS AMONG SELF-IMAGE CONGRUITIES AND ATTITUDE.....	128
K.	FOR COMBINED STUDENTS: MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL AND SELF-IMAGE CONGRUITIES PEARSON CORRELATION COEFFICIENTS AMONG FUNCTIONAL CONGRUITIES AND ATTITUDE PEARSON CORRELATION COEFFICIENTS AMONG SELF-IMAGE CONGRUITIES AND ATTITUDE.....	136
L.	FOR MARKETING STUDENTS: MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL, SOCIAL CLASS INDICATORS, AND ATTITUDE PEARSON CORRELATION COEFFICIENTS AMONG FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL, SOCIAL CLASS INDICATORS, AND ATTITUDE.....	144
M.	FOR NON-MARKETING STUDENTS: MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL, SOCIAL CLASS INDICATORS, AND ATTITUDE PEARSON CORRELATION COEFFICIENTS AMONG FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL, SOCIAL CLASS INDICATORS, AND ATTITUDE.....	146

N.	FOR COMBINED STUDENTS: MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL SOCIAL CLASS INDICATORS, AND ATTITUDE PEARSON CORRELATION COEFFICIENTS AMONG FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL, SOCIAL CLASS INDICATORS, AND ATTITUDE.....	148
O.	FOR MARKETING STUDENTS: MEANS AND STANDARD DEVIATIONS FOR FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL, GENDER, AND ATTITUDE PEARSON CORRELATION COEFFICIENTS AMONG FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL, GENDER, AND ATTITUDE.....	150
P.	FOR NON-MARKETING STUDENTS: MEANS AND STANDARD DEVIATIONS FOR FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL, GENDER, AND ATTITUDE PEARSON CORRELATION COEFFICIENTS AMONG FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL, GENDER, AND ATTITUDE.....	152
Q.	FOR COMBINED STUDENTS: MEANS AND STANDARD DEVIATIONS FOR FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL, GENDER, AND ATTITUDE PEARSON CORRELATION COEFFICIENTS AMONG FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL, GENDER, AND ATTITUDE.....	154
R.	SAMPLE SIZES FOR PROPORTIONS USING ONE-TAILED TESTS WITH VARYING EFFECT SIZES AND LEVELS OF POWER.....	156
VITA.....		158

LIST OF TABLES

Table	page
1. Attributes of the Marketing Education Program.....	40
2. Pearson's Correlation Coefficient r Among Functional Congruence Total (FCT), Self-Image Congruence Total (SCT), and Attitude Total.....	42
3. Beta Weights and R^2 for Functional Congruence Total (FCT) and Self-Image Congruence Total (SCT).....	44
4. For Marketing Students Beta Weights and R^2 for Functional Congruities (FC, tangible attributes) and Self-Image Congruities (SC, symbolic attributes) Regressed on Students' Attitudes Toward the Marketing Education Program.....	50
5. For Non-Marketing Students Beta Weights and R^2 for Functional Congruities (FC, tangible attributes) and Self-Image Congruities (SC, symbolic attributes) Regressed on Students' Attitudes Toward the Marketing Education Program.....	51
6. For Combined Students Beta Weights and R^2 for Functional Congruities (FC, tangible attributes) and Self-Image Congruities (SC, symbolic attributes) Regressed on Students' Attitudes Toward the Marketing Education Program.....	52
7. For Marketing, Non-Marketing, and Combined Students Beta Weights and R^2 for Functional Congruence Total (FCT), Self-Image Congruence Total (SCT), and Social Class Indicators in Relation to Students' Attitudes Toward the Marketing Education Program.....	54
8. For Marketing, Non-Marketing, and Combined Students Beta Weights for Variable Gender (Sex) in Relation to Students' Attitudes Toward the Marketing Education Program.....	57

STUDENTS' PARTICIPATION IN THE MARKETING EDUCATION PROGRAM:

THE RELATIVE EFFECTS OF TANGIBLE VERSUS SYMBOLIC FACTORS

CHAPTER I

BACKGROUND OF THE PROBLEM

A major segment of the labor force is employed in marketing related occupations. According to the Occupational Outlook Handbook, the industries and businesses anticipated to enjoy large employment growth in the near future are those primarily involved in the areas of marketing, sales, and management of goods and services. It has been estimated that approximately 30-35 percent of the labor force are in occupations that require marketing skills (U. S. Department of Labor, 1988-89, p.9-12). Furthermore, according to Johnston and Packer (1987), 65 percent of the American labor force is engaged in providing a service and that service industries will create all of the new jobs and most of the new wealth, over the next 13 years. Employment in marketing and sales occupations is projected to grow by 30 percent, by the year 2000, from 12.6 to 16.3 million jobs (U. S. Department of Labor, 1988-89).

Marketing has been essential to the growth and development of the service industry because it employs tactics that aim to satisfy the needs and wants of its customers. Marketing is broad in scope and encompasses a wide array of skills, jobs, industries, and institutions. About 80 percent of the jobs in marketing do not require a baccalaureate degree (Lynch & Heath, 1982). Therefore, there should be abundant employment opportunities for youth and adults in various occupations of marketing in the years ahead.

Well-trained graduates of marketing education programs from community colleges, vocational schools, private business schools, and high schools should be easily employable in the growing service industry. The mission statement of marketing education was developed by Samson (1980) and was endorsed by the marketing education profession: "The mission of marketing education is to develop competent workers in and for the major occupational areas within marketing, assist in the improvement of marketing techniques, and build understandings of the wide range of social and economic responsibilities which accompany the right to engage in marketing businesses in a free enterprise system" (p.15).

Low enrollments in the marketing education program nationally has been cited as a serious problem (Burrow, 1985; Ely, 1984; Davis, 1985) in the seventies up through to the first half of the eighties. The paradox of low enrollments in an education program where there has been a substantial demand for employees in marketing-related occupations could not be explained easily.

What were the causes of low enrollments in the marketing education program, and why were the majority of the marketing education programs unable to attract sufficient numbers of students? In the 1980 Conference on "Directions in Marketing and Distributive Education", Egglund (1980) stressed the problem of low enrollments and pointed out that "At this point, projecting solutions for the problem of low student enrollment is a matter of guess-work and conjecture. It seems clear however, that conducting a well-coordinated and vertically integrated promotion effort--a skill

that most marketing educators should possess--would head the list of solutions for this constraint" (p.11). However, it is possible that promotion might be only part of the problem. The need to redesign the program might be another area to consider as the source of the problem.

This dismal picture, however, has changed since 1985. An increase of enrollments has been witnessed since then, and the trend is continuing to date (Marketing Education State Supervisors, personal communication, April-September, 1990). These increases are good news to the profession. However, an on-going effort should be made in order for the enrollment growth to continue well into the future, especially with an increasing demand of personnel in marketing-related occupations. It should be noted however, that marketing education enrollments in Virginia have been declining since 1985 (Virginia Marketing Education State Supervisor, personal communication, April-September, 1990). Thus, the findings of the present study can help promote the marketing education program more effectively in Virginia, as well as help marketing educators to continue to promote the program effectively, on the national level.

Furthermore, there is also a need to attract to the marketing education program the right kind of students, the ones that will fit the program in terms of aptitude and interest. Such students will be those that would like and enjoy pursuing careers in marketing, and who would have the appropriate academic profile for such a program. Research strongly indicates that if the product's, or in this case a program/service's image (symbolic attributes) match the person's

actual self-image, then the person will identify with that product or program and will develop a positive attitude towards it (Grubb and Hupp, 1968; Grubb and Stern, 1971; Sirgy, 1985, 1985a). This phenomenon is referred to as self-congruity. Studies in consumer behavior have shown that self-congruity influences product preference, intention to buy, product usage, loyalty, and purchase motivation (e.g., Maheshwari, 1974; Samli and Sirgy, 1981; Sirgy, 1979, 1980; Gentry, Doering, and O'Brien, 1978; Vitz and Johnston, 1965). It is a simple, logical extension of these findings to believe that this should apply to program enrollment decisions for potential students.

Thus, it seems that in order to be able to attract and retain greater numbers of students into the program, as well as to attract the right kind of students, educators and researchers should consider a serious investigation of the value and influencing power of the characteristics or attributes (e.g., employability, good salary) of the marketing education program. Although there is research about the tangible or functional criteria of students' choice of the marketing education program (Clodfelter, 1984), no research has been found about the symbolic or value-expressive criteria, nor is there research that compares the relative role of tangible versus symbolic attributes in marketing education students choice. Clodfelter's study investigated the perception of marketing education and non-marketing education students toward marketing courses in high schools in Virginia. He investigated how students felt toward eleven salient or tangible attributes of the marketing courses (analysis of

the study in a later section). Research indicates that there is a match between a person's self image and a preferred product's or service's image (referred to as "self-image congruence") (Grubb and Hupp, 1968; Sirgy and Samli, 1985; Sirgy, 1985, 1985a) and hence one can infer that a student may prefer a marketing education program that will reinforce his or her self-image. Thus, the symbolic image of the marketing education program can be improved if those symbolic attributes that influence students' choices are identified and emphasized in the program's promotional plan.

Statement of the Problem

The problem that the present study is addressing is the examination of how the symbolic and the tangible attributes relate to students' attitudes toward the marketing education program, at the high school level. The findings will enable educators to develop effective promotional campaigns to attract students into the program, to attract the right kind of students (with the right aptitude and interest), and to redesign aspects of the program, if deemed necessary. Successful promotional campaigns and the redesigning of the program, if necessary, will help to increase enrollments in Virginia, attract the appropriate students in to marketing education, and develop, overall, a higher quality program.

The major purpose of the present study was to examine how the tangible and symbolic attributes of the marketing education program relate to students' attitudes toward the marketing education program. Specifically, the researcher tried to find out which of the two types of attributes of the marketing education program, tangible or

symbolic, relate most strongly to students' attitudes toward the marketing education program. Further, the researcher wanted to find out which of the tangible and which of the symbolic attributes, relate most strongly to students' attitudes toward the marketing education program. Results of the study will help the program planners to develop appealing and workable promotional program campaigns that will facilitate attracting and retaining students and also attracting the appropriate students for the program (with appropriate academic background and genuine interest). Furthermore, the information will aid marketing education planners to modify or redesign existing aspects of the program in order to make it more appropriate to the students' needs and expectations. Therefore, the study addressed the following research questions:

1. What are the tangible and symbolic attributes of the marketing education program?
2. To what degree do tangible attributes of the marketing education program relate to students' attitudes toward the program?
3. To what degree do symbolic attributes of the marketing education program relate to students' attitudes toward the program?
4. Which set of attributes, tangible or symbolic is more important in relation to students' attitudes toward the program?
5. Which of the tangible and which of the symbolic attributes are most important in relation to students' attitudes toward

the program?

6. Is there a difference between the marketing and non-marketing education students in regard to which attributes of the marketing education program they believe to be the more important, the tangible or the symbolic?

Rationale for the Study

The findings of the study will enhance knowledge of the importance of tangible versus symbolic attributes as they relate to students' attitudes toward the marketing education program. To date, there is no existing knowledge of whether to emphasize the tangible or symbolic attributes of the program in a promotional campaign or in the program design. Also it is not known which of the tangible and which of the symbolic attributes of the program should be promoted. Identifying the correct program attributes that appeal to potential students, can help marketing educators in modifying some aspects of the program, and in designing effective promotional strategies that will aid in attracting the right kind of students to the program. As cited previously, current figures indicate that program enrollment is increasing nationally (and declining in Virginia). Thus, an effective promotional plan designed to emphasize the desired program attributes, along with the appropriate modifications of the program should continue to increase (and reverse the decreasing trend for Virginia) the demand for marketing education and attract the right kind of students as well. Specifically, by emphasizing the strong attributes of the marketing education program (tangible or symbolic, or the strongest attributes from each set) students will be more

influenced to participate in the program. As a result of this, an increase in enrollments should take place in Virginia (and continue to increase nationally), with a group of students that will fit the program well (students with the appropriate academic background and those that have a genuine interest in marketing-related careers). It is hoped that the increasing demand for marketing personnel will be successfully matched with a supply of well-trained marketing professionals.

Assumptions

1. Non-marketing students are aware of the existence of the marketing education program in their high schools.
2. Most non-marketing students have some basic knowledge of the purpose of a marketing education program.

Limitations

1. Students may not indicate their true self-image, i.e., students' responses may be affected by social desirability effects.
2. Some students may not be knowledgeable enough about the program, thus their responses may contribute to a great deal of "noise" in the data.

Definitions

Attitude: A learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object (Fishbein and Ajzen, 1975, p.6).

Belief: An individual's subjective acceptance of the probability that something exists. The something may be a mental concept, an object, components of the object, or dimensions of the object

(Hughes, p. 84).

Communication: The process of conveying information from a source to a decision maker (Hughes, 1971, p. 49).

Importance: The value weight given attributes by individuals during the decision process (Wilkie and Pessemier, 1973, p. 433).

Multiattribute attitude model: A model of attitude measurement wherein an individual's beliefs about a particular attitude object are weighted and summed to yield an index of overall affect, or attitude (Bettman, Capon, and Lutz, 1975, p. 1).

Salient Attributes: Those course characteristics (evaluative criteria) which are actually utilized by students in evaluating alternative courses or programs (Wilkie and Pessemier, 1973, p. 428).

Actual self-image: How one perceives his or her real self (Sirgy, 1982).

Ideal self-image: The image of oneself as one would like to be (Sirgy, 1982, 1986).

Social self-image: The image that one believes others hold of him or her (Sirgy, 1982, 1985).

Ideal social self-image: The image that one would like others to hold of him or her (Sirgy, 1982, 1985).

Self-congruity: Congruity or match between the actual self-image and the product's image (Sirgy, 1985; Schenk and Holman, 1980).

Ideal congruity: Congruity or match between the ideal self-image the product's image (Sirgy, 1985).

Social congruity: Congruity or match between the social self-image and the product's image (Sirgy, 1985, 1986).

Ideal social congruity: Congruity or match between the ideal social self-image and the product's image (Sirgy, 1985, 1986).

Symbolic attributes: Evaluative criteria used in decision making that are value expressive, i.e., that reflect or express one's self-concept. For example; symbolic attributes of the marketing education program may include the extent to which participation will reflect certain image characteristics of the student, such as being business-like, being an entrepreneur, being money-hungry, being sociable, being intelligent, being ambitious, being greedy, etc. (Claiborne and Sirgy, 1990).

Tangible attributes: Evaluative criteria used in decision making that are functional, utilitarian, or performance-oriented, i.e., that are means to higher ends. For example, tangible attributes of the marketing education program may include the level of difficulty of the subject matter, the level of intellectual challenge required, expected financial rewards, etc. (Claiborne and Sirgy, 1990).

Marketing education program image (the multifaceted image): The total evaluative criteria used in decision making that are functional, utilitarian, or performance-oriented (i.e., level of difficulty of the marketing education subject matter, expected financial rewards, etc.) and value expressive that reflects or expresses one's self-concept (i.e., one's participation in the marketing education program will reflect that person as being business-like, money-hungry, sociable, intelligent, etc.) (Sirgy and Samli, 1985).

Marketing education program image (the symbolic image): Evaluative

criteria used in decision making that are value expressive, i.e., that reflect or express the self-concept of the person enrolled in the marketing education program. For example, a person enrolled in the marketing education program might be perceived as business-like, money-hungry, intellectual, sociable, etc. (Sirgy and Samli, 1985).

CHAPTER II

REVIEW OF RELATED LITERATURE

Several studies have investigated related topics in marketing education in the self-image/congruence area, and in the attitude area. This chapter contains the following sections: (1) literature concerning marketing education, (2) literature concerning self-image congruence, and (3) literature concerning attitude.

Literature Review Concerning Marketing Education

The investigator has not found any studies to date that have examined both tangible and symbolic attributes of the marketing education program or courses in the same study. Several studies have looked at the perceptions and evaluations of parents, students, teachers, sponsors, supervisors, and business executives towards the marketing education program, in general, at the high school level and in colleges. The present study will be built partly on Richard Clodfelter's work (1984) since he measured secondary students' perceptions toward marketing courses, using several tangible attributes, some of which are used in the present study. Clodfelter's work will be discussed in detail at the end of this section.

Charles Coyle (1974) analyzed the perceptions of marketing executives and marketing graduates of the value of undergraduate marketing programs at four-year colleges. He found that the marketing executives and graduate students valued marketing courses and tasks alike, but the executives were not overly satisfied with marketing and its graduates. Both groups felt that their involvement

and help should be solicited in order to assist in improving the program. Roger W. Hutt (1975) investigated the perceptions of employers regarding cooperative education programs at the secondary level, and what motivated them to participate in the program. Employers displayed an overall satisfaction with the program, and were pleased to get dependable employees through the program; however, they were knowledgeable of only a few characteristics or components of the program. They identified the need for more basic mathematics and communication skills in the classroom. On the other hand, a study by Stein (1987) that evaluated the perceptions of 224 businesspeople in New Jersey and Pennsylvania, found that many of the respondents were not sure if high school and vocational school training was sufficient to meet their needs for qualified employees. The majority of respondents also stated that more communication skills, human relations, and salesmanship skills were needed by the program's graduates.

Two different studies (Rury, 1983; Reed and Smith, 1985) evaluated high school marketing education students' perceptions regarding the marketing education programs in Oklahoma and Missouri, respectively. In the first study, over half of the marketing education students had positive impressions about the program, and indicated that they would return to the program for the second year for training. In the second study, students had a more positive impression of the marketing education program than the training sponsors and the administrators whose attitudes were evaluated as well. Marketing education students also were found to have a more

positive impression of the program and DECA (Distributive Education Clubs of America) than the administrators, teachers, and counselors (Foster, Elias & Smith, 1983). Another interesting finding of this study was that all six groups participating in the study (parents, teachers, students, administrators, counselors, and training sponsors) had an overall positive impression of the marketing education program, but each perceived the marketing education concepts quite differently. This points to some confusion about the goals of marketing education for each of the groups that are involved with the program. In addition, of all the groups, the marketing teachers, administrators, and counselors (the key promoters) seemed to have the lowest perceptions of the program. This finding indicates that there is a need to develop effective promotional campaigns for influencing students to participate in the program. But there is a need to promote to the program teachers, administrators, and counselors as well. They will be the ones that can have a great influence on students to participate in the marketing program.

Holup (1980) also found that various groups of people in the marketing education profession perceived marketing education concepts differently. He reported that there was considerable disagreement among the groups (teachers, state supervisors, teacher educators) on the meanings of some marketing education basic concepts (e.g., training plans, the role of a marketing education supervisor). Some of the evaluative criteria used (or concepts to measure the groups' perceptions) were: perception of the distributive education

supervisor, advisory committee, career objectives, and distributive education educator. Finally a study by Plessman (1985) supported the argument that marketing education attracted more practical, action-oriented, realistic types of teachers, meaning that marketing education teachers can be a good role model for potential marketing education students. That is precisely the image the marketing education program should portray: a practical, action-oriented, realistic one.

In an examination of secondary students' attitudes toward marketing education courses, Clodfelter (1984) found that high school students enrolled in marketing courses generally had a more positive impression toward the marketing education program and courses than those students not enrolled in the program or in marketing courses. The evaluative criteria that were used in the study involved eleven course characteristics or attributes: the course will prepare the student for a job, the course will prepare the student for college, the course matches the student's ability level, the subject matter is interesting to the student, the student's friends approve of the course, the course has a good reputation, the instructor has a good reputation, the parents approve of the student taking the course, the course includes a variety of learning activities, the guidance counselor approves of the student taking the course, and the course provides practical experience through its co-op component. Also, the students enrolled in such courses had stronger beliefs than those not enrolled regarding whether these courses possessed certain basic functional attributes (e.g., usefulness of course in job preparation,

course will provide practical experience, etc.). Thus, they argued that students with a more positive attitude toward marketing courses will more likely enroll in a marketing course in the future. Furthermore, the most important tangible attributes of the marketing courses for the marketing education students were practical experience, preparing for a job, student interest in the subject matter, reputation of class instructor, and variety of learning activities. For the non-marketing education students the most important tangible attributes were course preparation for a job, variety of learning experiences in the class, class preparation for college, and reputation of class instructor. In addition, another important finding was that the non-marketing education students chose as important attributes of a course, the following attributes: usefulness of the class in preparing for a job, student interest in the subject matter, usefulness of the course in preparing for college, and reputation of the course instructor. Clodfelter suggested promoting marketing courses to the non-marketing education students as well as promoting to all students, in general, the value of the marketing courses for college preparation. The tangible attributes of Clodfelter's study were used in the present study (in addition to others obtained through the preliminary study) in order to measure how they relate to students' attitudes toward marketing education. Studies that have simultaneously investigated both tangible and symbolic attributes of the marketing education program have not been found.

Literature Concerning Self-Image Congruence

The term "self-concept" (or self-image as it has been recently called) has many definitions, but most of them seem to stress an "organized configuration of perceptions of the self which are admissible to awareness" (Rogers, 1951, p.492), or the "totality of the individual's thoughts and feelings having reference of himself as an object" (Rosenberg, 1979, p.7). In other words, self-concept is composed of the attitudes, thoughts, and feelings one holds towards oneself.

Self-concept or self-image is studied by consumer researchers to find out how it affects consumer behavior, e.g., product choice. Grubb and Grathwohl (1967) supported that the consuming behavior of an individual will be directed toward enhancing self-concept through the consumption of goods and services. That is, the individual will prefer products and services whose image will complement or match his or her self-image. This theory was further supported by Grubb and Hupp (1968) and by Grubb and Stern (1971). Various studies have shown that self-image/product image congruity (or "self-image congruence") affects consumer behavior (product preference, intention, product usage, loyalty, and purchase motivation) (e.g., Maheshwari, 1974; Samli and Sirgy, 1981; Sirgy, 1979, 1980; Gentry et al., 1978; Vitz and Johnston, 1965). Self-image/product image congruity or self-image congruence (for short) is defined as the match between a person's self-image (actual, ideal, social, and or ideal social) and the product's image (Sirgy, 1985).

Some researchers see self-image as having two components; the actual self-image and the ideal self-image (Belch 1978; Belch and Landon, 1977; Delozier, 1971; Delozier and Tillman, 1972; Dolich, 1969). However, Sirgy, (1980) refers to four components of self-image; the actual self-image (the way one sees himself), the ideal self-image (the way he or she would like to be), the social self-image (the image that one believes others hold of him or her), and the ideal social self-image (the image that one would like others to hold of him or her). Durnoff and Tatham (1972) talked about the actual self-concept, ideal self-concept, and "image of best friend". Sanchez, Brien, and Summers (1975) stressed the actual self-concept, ideal self-concept, and the "expected self", which is the image somewhere between the actual and the ideal self-concept.

Consumers or users purchase a product (or enroll in a program) with an image that matches an aspect of their self-concept. For instance, they often may try to match their actual self-image or ideal self-image with the product's image (Landon, 1974). Hence, managerially speaking, emphasizing the appropriate symbolic attributes, product or program planners may be able to attract consumers by matching the product image with their actual or ideal self-image.

There are four types of congruities or self-image congruence models which have been used to predict consumer behavior variables (intention, product choice, product or store loyalty). First, the self-congruity which reflects the match between the actual self-image and the product image (Birdwell, 1968; Dolich, 1969; Grubb and Stern,

1971; Malhotra, 1981, 1988; Ross, 1971; Sirgy, 1985). Second, the ideal congruity which reflects the match between the ideal self-image and the product image (Lamone, 1966; Dolich, 1969; Delozier and Tillman, 1972; Malhotra, 1981, 1988; Ross, 1971; Sirgy, 1985). Third, the social congruity which reflects the match between the social self-image and the product image (Maheshwari, 1974; Sirgy and Samli, 1986; Sirgy, 1985). And fourth, the ideal social congruity which reflects the match between the ideal social self-image and the product image (Sirgy, 1985a; Sirgy and Samli, 1985). Landon (1974) presented evidence that suggests that some consumers seek congruency with the actual self-image, while others seek congruency with their ideal self-image. There have also been a few studies that investigated the functional or tangible (e.g., price, promotion, store characteristics, personnel, etc.) versus the symbolic (e.g., modern, traditional, casual, sophisticated, classy, folksy, etc.) attributes of a store. Samli and Sirgy (1981) conducted such a study to test the multidimensionality of store loyalty and along with the other variables, functional (store image evaluation) and symbolic attributes were measured to determine their influence on store loyalty. The results showed functional evaluation (evaluation or attitude based on the functional attributes) accounted for a significant and major portion of the predicted variance in store loyalty. Moreover, the self-image congruence variables (social congruity and ideal social congruity which reflect evaluation based on the symbolic attributes) were significantly correlated with functional store-image evaluation. A follow-up path analytic study

by Sirgy and Samli (1986) showed that store loyalty is primarily determined by functional evaluation and that functional evaluation (or functional congruence) is strongly influenced by self-image/store-image congruence (social congruity and ideal social congruity).

The present study will utilize the self-image congruence models in order to measure the marketing education program's image and the students' self images, which will give us self-image congruence (symbolic attributes). Specifically, the ideal social congruity model (as explained above) will be used. The rationale for its usage is stated extensively in the methodology section.

Literature Concerning Attitude

An attitude is a hypothetical construct which can never be directly verified. Allport (1935) defined an attitude as a mental and neural state of readiness to respond, which is organized through experience and exerts a directive and/or dynamic influence on behavior. Another, more recent definition is one that describes an attitude as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (Fishbein and Ajzen, 1975, p. 6). Although an attitude will not necessarily result in a certain behavior, the assumption is made that a change in attitude will result in some kind of change in behavior. Lutz (1981) stated that attitude seems to be the most widely used theoretical construct in marketing, for predicting consumer decision-making.

Therefore, attitude theories are important in marketing because they enable the firm to develop effective marketing strategies that will influence the consumer or user to develop favorable attitudes towards the product or service. In addition, the appropriate marketing strategy will help to modify consumers' attitudes toward certain product or product characteristics, to the extent that the new attitude will be favorable or more favorable. In the following sections, consistency and learning theories of attitude formation and change are examined. The purpose is to select an attitude model that is established in the marketing/social psychology literature to model and measure functional evaluation, or attitude based on the tangible criteria.

Consistency Theories. There are a number of consistency theories, and the main thrust of these is that an individual strives to achieve consistency within his or her cognitive structure and between his or her cognitive structure and overt behavior; and that the individual will try to avoid inconsistency because it causes psychological tension. Two of the most common ones are the balance theory (Heider, 1946), and the affective-cognitive consistency theory (Rosenberg, 1960).

The Balance theory holds that individuals seek to achieve a "balanced configuration" among cognitive and affective elements. These elements are the person (P), the attitude object (O), and a related object, person, attribute or consequence (X). The link between the person and attitude object will produce the attitude in question. The links are represented by a positive (+) or negative

(-) valance, with no degree of positivity or negativity. Heider supports that the valance of the attitude (the P-O link) can be predicted on the basis of the valance attached to the O-X link and P-X link. This is done by multiplying the two valances because the individual is motivated to achieve a balanced state. When an individual evaluates positively (+) a product attribute, the predicted attitude toward that brand is positive (+1 x +1 = +1). On the other hand, if there is an attribute that the person does not value (-1) and he or she does not associate it with the object (-1), then the outcome will be again positive (-1 x -1 = +1). In the opposite situations the result will be a negative one. Balance theory is usually discussed in the marketing literature as a vehicle to change consumers' attitudes about certain brands. However, the theory has some limitations such as not allowing for quantitative variation in the valances (all links are + or -), and that the degree of intensity of the relationship is not measured.

Another theory is Rosenberg's (1960) affective-cognitive theory which aims to determine the structural relationship between a person's attitudes and his or her values. Each value is measured with respect to its value importance to the individual and its perceived instrumentality (e.g., if the object/product will fulfil or satisfy the value held by the individual). The Rosenberg model is as follows: $A = \sum_{i=1}^n V_i P_i$, where A=attitude toward the object, V=value importance of the i^{th} value object in question and P=perceived instrumentality; the extent to which the value would be blocked or attained by the attitude object in question, n=the number of salient

values which were measured. V P is the individual's index of his or her cognitive structure supporting the observed attitude. If a change will take place in the cognitive structure or in the attitude, then an inconsistency will occur (there is a direct relationship between the variables) which the individual will strive to reduce by adjusting the attitude to be more in line with his or her cognitive structure. Furthermore, the model allows for quantification of the valence attached to the value (use of a seven-point scale (-3 to +3)), where the balance theory does not. Marketers, however, have mostly used the Rosenberg model to predict brand preferences, and others believe (Lutz, 1981) that the model is more appropriate to predict product class selection than brand selection.

Learning Theories. Individuals are not born with attitudes, but learn them and adopt them as they grow up. Learning theories can facilitate attitude learning by examining the association between a certain stimulus and the response. Since attitudes are learned, marketers can try to change them by developing effective communication strategies aimed at the consumer. One of those models that has been based on learning theory is described by Fishbein (1963). The Fishbein model focuses on the notion that an attitude toward an object is a function of the strength of beliefs about an object, and the evaluative aspects of these beliefs. The model is as follows: $A_o = \sum_{i=1}^n B_i a_i$, where A_o = attitude toward the object, B_i = the strength of the belief that the attitude object possesses toward the i^{th} attribute (expressed as a subjective likelihood), a_i = the evaluative aspect associated with the i^{th} attribute (its goodness or

badness), and n =the number of salient attributes of the attitude object.

The Fishbein model is situation-specific and may deal with attributes that are characteristic of a specific product, service, or situation. It is widely used in marketing, in the area of attitude formation and change (also the Rosenberg model)--because the basic premise here is that attitudes can be predicted based on brand or service attributes which are typically weighted by some evaluation or importance term.

Another well known model that is based on learning theory is the Bass and Talarzyk (1972) model. It is similar to the Fishbein model (both have an evaluation component of the attributes), but instead of considering the strength of the belief that the object possesses the i^{th} attribute, the Bass-Talarzyk model considers the importance of the attribute that the object possesses. Many studies dealing with student attitudes toward a particular course have used the term importance in the questionnaires (Clodfelter, 1984), therefore the Bass and Talarzyk model is more often used to measure student attitudes. The model is as follows: $A_b = \sum_{i=1}^n W_i B_i$, where A_b = the attitude toward a particular brand, W_i = the weight or importance of attribute i , B_i = the evaluative aspect or belief toward attribute i , and n = the number of attributes important to the selection of a given brand. By adopting this model, the students are asked to what extent they believe the program possesses selected attributes (the belief variable). The students are also asked how important the selected attributes of the program are to them (the importance

variable). Thus, these two variables are the independent variables which will be measured against the dependent variable of attitude.

Although the model conceptually is $A_b = \sum_{i=1}^n W_i B_i$, it will be used in a slightly different format $A_b = W_i B_i / i$ (the outcome will be exactly the same). The product of the importance (W) and the belief (B) variables will be divided by the constant i to obtain the mean. This approach is better because is less cumbersome than using the sums, and the outcome of the analysis is unchanged.

The Bass-Talarzyk model will be the one that will be used in this study to measure the tangible attributes. Balance theory (Heider, 1946) does not allow for quantitative variation in the valences (+1 or -1), and cannot combine several attributes together to predict attitude. The affective-cognitive consistency theory (Rosenberg, 1960) examines mainly a person's central values and how they relate to his or her attitudes. It has been used most often in predicting the selection of product class, rather than brand selection. In the present study, the brand selection is taken to be the selection of the marketing education program as a part of the total school curriculum, which is taken to be the product class. As stated earlier, the chosen model is a better one to use than the Fishbein model because the "importance" variable can more easily evaluate effectively the attributes of the program, and the Bass-Talarzyk model has been used successfully with the measurement of students' attitudes toward courses.

CHAPTER III

RESEARCH METHODS

This chapter describes the methods proposed to determine the degree of influence of evaluation based on tangible attributes and symbolic attributes of the marketing education program. The research questions that are addressed here are:

1. What are the tangible and symbolic attributes of the marketing education program?
2. To what degree do tangible attributes of the marketing education program relate to students' attitudes toward the program?
3. To what degree do symbolic attributes of the marketing education program relate to students' attitudes toward the program?
4. Which set of attributes, tangible or symbolic is more important in relation to students' attitudes toward the program?
5. Which of the tangible and which of the symbolic attributes are most important in relation to students' attitudes toward the program?
6. Is there a difference between marketing and non-marketing education students in regard to which attributes of the marketing education program they believe to be the more important, the tangible or the symbolic?

The following sections are included: 1) Design, 2) preliminary procedure, 3) Population and Sample, 4) Instrumentation, and 5) Analysis of Data.

Design

A survey design was used in this study. Students in the sample were given a questionnaire containing measures of self-image and ideal social self-image, belief of tangible attributes (if students believe that the program possesses the attributes), importance of tangible attributes, and attitude toward the marketing education program. The one-shot survey design is used because the subjects' ratings of the images and attributes are needed without any manipulation (Cook and Campbell, 1979).

Preliminary Procedure. The following procedure or pilot study enabled the researcher to obtain a list of tangible and symbolic attributes of the marketing education program. Limited numbers of tangible (Clodfelter, 1984) and symbolic attributes (Krau, 1989; Sirgy, 1985; Hall, 1971) of marketing education, which have been obtained from the literature, were presented to two focus groups of six to ten students each (McCarthy and Perreault, 1984) at two local Virginia high schools. The students were asked to rate those attributes that mostly characterize the marketing education program (see Appendix D). Also, they were asked to add any new ones to the list. Then they ranked all the attributes, from most important to least important. Their responses were subjected to a content analysis by three judges. The strongest or most important tangible and symbolic attributes were chosen to make the final questionnaire

(see sample, Appendix C). Furthermore, the instrument (the questionnaire) was field tested in a marketing education class and in a non-marketing education class (thirty students) in a local high school. A reliability test, of the tangible attribute and the symbolic attribute questions, was conducted on the data by employing a test-retest procedure about two weeks apart to the same group of students. Strong correlations of .8563 and .9184 was secured for the tangible and the symbolic attribute questions, respectively.

Population and Sample

The population of the present study was all high schools in Virginia with marketing education programs. Students in the 9th, 10th, 11th, and 12th grades were selected for the study. An equal number of marketing students and non-marketing students were systematically selected with a random start from the above high schools. The non-marketing students chosen for the study were selected from study halls where students of different grades were found (marketing students were taken out because they already had been included in the first group). The use of the study hall students facilitated the administration of the survey questionnaire.

A list was obtained of all high schools in Virginia with a marketing education program having a sequence of at least two marketing courses. Using the stratified cluster sampling technique, a cluster of high schools in Virginia was selected randomly from 210 high schools with marketing education programs, and stratified on the basis of their enrollments in marketing classes. Half of the students were selected from marketing classes, and the other half

from the study hall rooms. The sample size was based on the criteria of alpha .05, effect size (d)=.10, and power of test=.90 (Hinkle, Oliver, and Hinkle, 1985, p.272) (see Appendix R). Based on the above criteria (which is a commonly used criteria), the required sample size N was 430 students. Assuming a response of 80 percent, an initial N of 540 was to produce the required n of 430 students. Fifteen public high schools were selected out of the total 210 high schools in Virginia. In order to select these fifteen schools, all the high schools were rank ordered from the largest to the smallest (according to student population). The whole set of schools was then divided in five groups. Three high schools were selected from each group using a table of random numbers. This procedure provided the set of the fifteen public high schools that were used for the study. About thirty-six students (eighteen marketing education and eighteen non-marketing education students) were systematically selected from each of the fifteen schools ($36 \times 15 = 540$ students as indicated above).

The high schools were rank ordered from the largest to the smallest school in order to give an equal chance to all size high schools to be chosen, large, medium, and small. It might be assumed that students from different size schools might have different perceptions of marketing education. For example, large schools might have larger and better equipped marketing education programs than some smaller schools; thus, students from larger schools might have more favorable attitude toward marketing education. The permission and assistance of school administrators and teachers was secured for

participating in the study and for administering the questionnaire.

Instrumentation

Measures of Symbolic Factors. As stated earlier, for the purpose of the study, the self-congruence models were used for measuring the symbolic attributes, and the Bass-Talarzyk model was used for measuring the tangible attributes. The self-congruence models have been used repeatedly and successfully to predict consumer behavior. They are based on the notion that there is a cognitive matching between value-expressive attributes of a given product or service and consumer self-image (see comprehensive literature review Sirgy, 1982, 1985; Clayborn and Sirgy, 1990). The generalized absolute difference congruence model (see Appendix B) was used to obtain scores for ideal social congruity (difference between the ideal social self-image and the program's image). The lower the score or the smaller the difference between the ideal social self image and the program's image, the higher the congruity and vice versa. A congruence score is the absolute arithmetical difference between the same semantic differential adjective pair for self-image and product image measurements (Dolich, 1969). This score is summed over all the attributes of the individual's image and the program's image to calculate a total congruence score for each person. The generalized absolute difference congruence model has been used in many studies and it has been demonstrated to be most predictive of product preference and purchase intention (Sirgy, 1982).

The semantic differential scale involving the symbolic attributes elicited from the preliminary procedure was utilized. The semantic

differential scale has been successfully used in the measurement of self-image and store image (Sirgy, 1982). The scale ratings were from one to five with one being the best and five being the worst. One page of the questionnaire (see Appendix C, page 105) requested students to rate their ideal social self-image and the image of the person that is enrolled in the marketing education program. The image of the person enrolled in the program is perceived to be the program's image because this is the stereotypic perception one has of the program due to the image elicited by the generalized user of the program. However, the image of the person enrolled in the marketing education program will be only a component of the program's total image. The tangible attributes that the students are asked to rate about the program will be the remaining portion of the program's image. The ideal social self-image is chosen for measurement because high school students are generally concerned about how they would like their peers and other people to perceive them (Krosnick and Judd, 1982; Montemayor, 1982). They generally would like others to have a certain image of them (e.g., modern, intellectual, well-to-do person, etc.). There is extensive literature in psychology (in human development and adolescence) that supports the notion that adolescents are very influenced by what their peers and people in their immediate environment think of them. According to Adams (1980), "Being liked and being accepted are important at any age, but they particularly seem crucial during the adolescent years. Sometimes the dependence on group approval is so severe that it seems something on the order of a "popularity neurosis" (p. 97). Moreover,

according to Dusek (1987) "The peer group provides the adolescent with a natural environment for social comparison, particularly with respect to norms and values for appropriate appearance, likes and dislikes, and behavior" (p. 181). Adolescents like their peers to have a certain image of them, especially in a social setting (Dusek, 1987). Thus, the ideal social self-image is the one that is the most important to them.

Measures of Tangible Factors and Attitude. The Bass-Talarzyk model was used to measure the students' functional evaluations (using tangible attributes). This model has been used frequently in marketing. By employing the Bass-Talarzyk model, the students' attitudes were measured toward certain salient, tangible program attributes (e.g., employability). The model also allows the subjects (students) to state how important the tangible attributes are to them in influencing them to hold a certain attitude toward the marketing education program (the "importance" variable). Further, students were asked to state if they believed the marketing education program possesses each tangible attribute (the "belief" variable) (see Appendix C, page 104). These two variables, the "importance" and "belief" variables were multiplied together for each tangible attribute and then summed for all tangible attributes. As it was indicated previously, this sum was then divided by the number of attributes to produce a more manageable number. The resulting final total score was the student's functional evaluation of the marketing education program. The Lickert scale was used for students to rate the tangible attributes, ranging from one to five, with one being the

best and five being the worst. In the first and second page of the questionnaire the students were asked to rate the tangible attributes of the marketing education program (generated from literature and the preliminary procedure). Specifically, the first page of questions measured the "importance" component where the second page of questions measured the "belief" component of the tangible attributes of the program. As stated above, the third page contained questions to measure the symbolic attributes. The fourth page contained items measuring students' attitudes toward the program and the fifth page included demographic measures such as gender, living arrangements, income of the household, occupation and marital status of parents, and education level of both parents (see Appendix C, page 106). The purpose of the social class information (income, education, and occupation) was to find out if there is a difference in attitudes toward marketing education among students of different social classes. If such differences are found, then this information might dictate separate promotional campaigns for those social classes of students that were found to differ. It was anticipated that the variables of gender, income, education, and occupation might have a confounding effect on the data. Females might give a more favorable evaluation of marketing education because, traditionally, more females have been enrolled in the program, particularly in the fashion merchandising area (Virginia State Department of Education, 1988-1989; Lynch and Heath, 1982). Moreover, students of high socioeconomic status (high income and education levels of their parents) might perceive marketing education less favorably than the

low socioeconomic students. This might be due to the fact that vocational education has traditionally been viewed as a program for the lower class, lower ability student (Gillie, 1973). Since marketing education is a program of vocational education, it can be assumed that it tends to receive the same type of evaluation from the public.

Analysis of Data

Multiple regression analysis was used to examine the attitudes toward the marketing education program as a function of functional congruence (tangible attributes) and self-image congruence (symbolic attributes). This was done separately for the marketing education group and the non-marketing education group. Each student had a congruence score, a belief-importance score (the independent variables), and an attitude score (the dependent variable). This analysis was conducted to determine the degree to which the attitude toward the program is explained by the functional/tangible attributes and by the symbolic/self image attributes. The beta weight of the ideal social congruity variable is compared to the beta weight of the belief-importance variable. The higher beta weight accounts for the greater degree of relationship. Furthermore, regular regression was employed where all the tangible variables and then all the symbolic variables were put in the regression equation, in order to find out which of the tangible and which of the symbolic attributes are more important in relation to students' attitudes toward the marketing education program. In addition, regular regression enabled the researcher to determine if there was a difference between marketing

and non-marketing students in regard to which attributes of the program they believed to be the more important ones. The correlation coefficient r was also calculated in order to determine the degree of relationship of the tangible and symbolic attributes and students' attitudes toward marketing education.

CHAPTER IV

ANALYSIS OF THE DATA

The purposes of this study are to identify the tangible and symbolic attributes of the marketing education program at the high school level in Virginia, and to determine the relationships of these attributes to the students' attitudes toward the program. More specifically, the objective of the study is to answer the following research questions:

1. What are the tangible and symbolic attributes of the marketing education program?
2. To what degree do tangible attributes of the marketing education program relate to students' attitudes toward the program?
3. To what degree do symbolic attributes of the marketing education program relate to students' attitudes toward the program?
4. Which set of attributes, tangible or symbolic, is more important in relation to students' attitudes toward the program?
5. Which of the tangible and which of the symbolic attributes are most important in relation to students' attitudes toward the program?
6. Is there a difference between marketing and non-marketing education students in regard to which attributes of the

marketing education program they believe to be more important, the tangible or the symbolic?

The findings of this study will help program planners to develop effective promotional programs that will assist in attracting and retaining students into the marketing education program. The goal will be to attract students with the appropriate aptitude and interest. The findings will also help educators to redesign or modify aspects of the program in order to make it more effective in meeting the needs and wants of the students.

The two models that were used to measure the tangible and the symbolic attributes of the marketing education program are the Bass-Talarzyk and the ideal social congruence model. A five-point scale was used by both models to measure the attributes, ranging from "1" (very likely or very important) to "5" (very unlikely or very unimportant). The Bass-Talarzyk model, $(A_b = \sum_{i=1}^n W_i B_i)$, consists of the overall attitude toward the brand (A_b), the weights (or importance) of each attribute (W_i), and the belief component toward those attributes (B_i). In the model, W is a $1 \times i$ vector of weights $[W_1 \ W_2 \ W_3 \dots W_n]$. B is an $i \times 1$ vector of belief scores

$[B_1]$

$[B_2]$

\vdots

$[B_n]$

A is the sum of the products of $W \cdot B$, i.e., $W_1 \cdot B_1 + W_2 \cdot B_2 + \dots + W_i \cdot B_i$.

The evaluative or belief scores were measured by asking students to state to what extent they believe the program possesses each

attribute. The weights were measured by asking students to state how important each of the attributes of the program are to them. In the findings, this variable is referred to as Functional Congruence Total (FCT). The functional congruity total was then divided by ten (i.e., the total number of tangible attributes). As it was indicated in chapter 2, the mean of the congruence scores was calculated rather than the sum of the scores. This was done for convenience, because the sum scores would be cumbersome to use. The attitude total variable (ATT) was calculated by adding the four attitude indicators (the four global attitude questions), and dividing by the number four, since there were four questions (see Appendix C).

Cronbach alpha reliability analysis was conducted for the four attitude indicators of the attitude measure. A very good alpha of .8470 (about eighty five percent) was secured.

The ideal social congruity involves the match between the students' ideal social self-image and their image of the person enrolled in the marketing education program. There were nine items designed to address image. The students responded to the items first in terms of their ideal social self-image (SI) and then in terms of their perception of the image of the person enrolled in the marketing education program (PI). The absolute difference between the ratings of each pair SI-PI is a congruence score. The sum is the total congruence score for each student. Those students that did not know the answer to a question were given the opportunity to indicate this by circling the "don't know" item. These responses

were treated as missing data. This variable is referred to in subsequent discussion as Self-Image Congruence Total (SCT).

In addition to questions regarding the tangible and the symbolic attributes of the marketing education program, the questionnaire included four global questions concerning students' attitudes toward the marketing education program. The questions were very general, not referring to any tangible or symbolic attributes of the program. For example, students were asked to state to what extent they agreed (on a scale of 1 to 5) with the following: Marketing Education is a good program. As stated earlier, the sum of the scores from these four questions served as the dependent variable of the analysis and is referred to as Attitude Total (ATT).

There were also two qualitative questions that were included in the questionnaire. The students were asked to state what they liked and disliked the most about the marketing education program in their schools.

Five-hundred and three questionnaires were completed in fourteen high schools in Virginia, and returned for analysis. This took place in May and June 1990, and the analysis was undertaken as soon as all data were received. Although fifteen schools were randomly selected to participate in the study, one of these schools chose not to participate due to time constraints. However, a return of 503 questionnaires was more than adequate since the initial size needed for the study was 430 students.

Findings

The reader should note that although 503 questionnaires were

returned, some students failed to respond to all of the questions. As a result, missing data were a minor problem. The following tables present the actual number (N) of questionnaires for which complete data were available for the respective analyses.

Question #1: What are the tangible and symbolic attributes of the marketing education program?.

The focus group method and literature search produced ten tangible and nine symbolic attributes of the marketing education program (see table 1).

Table 1
Attributes of the Marketing Education Program

Tangible Attributes

- FC1= The program adequately trains students for employment in marketing-related jobs.
- FC2= Graduates of the program get jobs with good starting pay.
- FC3= The teacher-coordinator helps students with job placement (find a job after graduation).
- FC4= The program provides useful practical experience through on-the-job training.
- FC5= The program prepares students for college.
- FC6= The program involves a variety of learning experiences such as field trips, class role-play situations, films, competitive

(Table 1 continued)

-
- events, etc. rather than just lecture/discussion.
- FC7= The program offers the opportunity for students to earn credit, for working part time.
- FC8= The program teaches students how to communicate effectively with people.
- FC9= The program teaches students responsibility.
- FC10= The program prepares students to make good career choices.

Symbolic Attributes

- | | | |
|----------------|--------------------|------------------------|
| SC1= Modern | SC4= Exciting | SC7= Wants to be rich |
| SC2= Friendly | SC5= Professional | SC8= Business-like |
| SC3= Confident | SC6= Sophisticated | SC9= Sociable/outgoing |
-

These attributes were identified after the focus group findings were content analyzed by three judges, and by a thorough search of related literature.

Question #2: To what degree do tangible attributes of the marketing education program relate to students' attitudes toward the program?

The relationship between attitudes toward marketing education (ATT) and the tangible attributes (i.e., employability, good training, etc.) of the marketing education program were analyzed by calculating the Pearson's correlation coefficient (r) for the tangible and symbolic attributes (see Table 1). The correlation

coefficient r between the functional congruity total (FCT) and the attitude total (ATT) variable was .4390 for the combined sample (see Table 2), which indicates a moderate correlation.

Table 2

Pearson Correlation Coefficient r among Functional Congruence Total (FCT), Self-Image Congruence Total (SCT), and Attitude Total, and R^2 for FCT and SCT

	Marketing Students coefficient r	Non-Marketing Students coefficient r	Combined coefficient r
FCT and ATT*	.4426 ($n=244$)	.4184 ($n=242$)	.4390 ($n=486$)
r^2	20%	17%	19%
SCT and ATT*	.1555 ($n=235$)	.3301 ($n=232$)	.3218 ($n=467$)
r^2	2%	11%	10%

n =sample size

* $P < .05$

Data reported in this table are addressed in research questions 2,3,4, and 6

Note. The scale used to measure the attributes ranged from 1, the best score, to 5, the worst score.

This means that students' perceptions of the marketing education program have a moderately positive relationship to the tangible attributes of the program.

Question #3: To what degree do symbolic attributes of the marketing education program relate to students' attitudes toward the program

The Pearson r correlation coefficient was also used to determine the relationship between the students' self-image congruence total and their attitudes toward the marketing education program in their schools. The r correlation coefficient between the self-image congruence total (SCT) and the attitude total (ATT) variable for the sample combined was found to be .3218 (see table 2). This correlation indicates a moderately positive relationship between self-image congruence (the symbolic attributes) and students' attitudes toward the program. Although the tangible attributes are more important in forming students' attitudes toward the program, as it was shown above, the symbolic attributes are also important.

Question #4: Which set of attributes, tangible or symbolic, is more important in relation to students' attitudes toward the program?

In order to determine which set of attributes, tangible or symbolic, was more important in relating to students' attitudes toward the marketing education program in their schools, multiple regression analysis was undertaken. The functional congruence total and the self-image congruence total were regressed on students' attitude total for the combined sample. The beta weight for the

functional congruence total was found to be .407, and for the total self-image congruence was .269 (see Table 3) for the combined sample.

Table 3

Beta Weights and R^2 for Functional Congruence Total (FCT) and Self-Image Congruence Total (SCT)

	Marketing Students		Non-Marketing Students		Combined	
	Beta	Probabil.	Beta	Probabil.	Beta	Probabil.
FCT	.409146	.0000*	.412394	.0000*	.406878	.0000*
	(n=230)		(n=228)		(n=458)	
SCT	.066279	.2818	.315943	.0000*	.268567	.0000*
	(n=230)		(n=228)		(n=458)	
R^2	.18355 (18%)		.27389 (27%)		.26166 (26%)	

* $P < .05$

Data reported in this table are addressed in research questions 4 and 6

Note. The scale used to measure the attributes ranged from 1, the best score, to 5, the worst score.

The larger positive beta weight for the functional congruence tells us that the tangible attributes of the marketing education program are more important than the symbolic attributes in explaining the variance in student attitudes toward the program. This phenomenon can also be supported by an r^2 of 19% (see Table 2, $r=.4390$) (Pedhazur, 1982, p.279). A greater percentage of the students' attitudes (19%) toward the marketing education program is associated with the set of the tangible attributes of the program. A smaller ($r^2=10\%$), but significant percentage of the students' attitudes toward the same program is associated with the symbolic attributes of the program.

Question #5: Which of the tangible and which of the symbolic attributes are most important in relation to students' attitudes toward the program.

Both marketing (Table 4) and non-marketing (Table 5) students' ratings of the tangible and symbolic attributes (see Table 1) were analyzed using multiple regression with ATT as the dependent variable. Beta weights for each tangible and each symbolic attribute were obtained indicating the relative contribution of each attribute to the variance of the dependent variable, the attitude. Results of the regression for the combined sample ($N=458$) are shown in Table 6. This table indicates that the more important tangible attributes (statistically significant) of the program, in a descending order, are:

FC4. The program provides useful and practical experience

through on-the-job training.

FC1. The program adequately trains students for employment.

The beta weights for the two tangible attributes above are .212 and .188 respectively, meaning that the attribute of "practical experience" has greater weight on attitude than the attribute of "training for employment".

Data in Table 6 indicate that the more important symbolic variables (statistically significant), in a descending order, are:

SC2. Friendly outlook of the marketing education program.

SC1. Modern outlook of the marketing education program

SC7. The "wants to be rich" attribute of the program.

The beta weights for the above symbolic attributes are .182, .132, and .102 respectively, meaning that "friendliness" has the most weight or importance of the three.

Question #6: Is there a difference between the marketing and the non-marketing education students in regard to which attributes of the marketing education program they believe to more important, the tangible or the symbolic?

Further examination of Table 3 will show that both groups of students, marketing and non-marketing, believe that the tangible attributes are more important than the symbolic. Beta weights for marketing and non-marketing students for the functional congruence total (FTC) are .409 and .412 respectively. Students' attitudes toward the program are more attributable to functional congruence, for both groups of students. However, for the self-image congruence

total (SCT), only the beta weight for the non-marketing students is significant. The symbolic attributes are important (statistically significant) to the non-marketing students ($\beta=.316$), but not to the marketing students ($\beta=.066$). In addition, the r^2 for SCT for the non-marketing students is 11% , while for the marketing students it is only 2% (see Table 2). The r^2 for FCT is 20% and 17% for marketing and non-marketing students respectively. These figures show that a greater portion of the variance of students' attitudes toward the program is accounted for by functional congruence than symbolic congruence. The difference of the r^2 for SCT indicates that the non-marketing students' attitudes are more closely related to the symbolic attributes of the program than for the marketing students (11% versus 2%). Furthermore, the above findings are also supported by the Pearson correlation coefficients between attitude and FCT and attitude and SCT (see Table 2). The correlation is higher for the tangible attributes than the symbolic attributes, for both groups of students. As shown in Table 2, the correlation is small for the marketing group for the symbolic attributes (.155 for the marketing students and .330 for the non-marketing students).

Significant attributes for marketing students. In regard to which tangible and which symbolic attributes of the marketing education program are more closely related to attitudes to each group of students, it was found that for the marketing students the following tangible attributes were more important (stated here in a descending order) (see Table 4):

FC1. The program adequately trains students for employment in

marketing-related jobs.

FC4. The program provides useful practical experience through on-the-job training.

FC8. The program teaches students how to communicate effectively with people.

FC9. The program teaches students responsibility.

FC6. The program involves a variety of learning experiences.

Tangible attributes FC8 and FC6 above showed negative relationship, where all others showed positive relationship. From the symbolic attributes of the program, there was only one attribute that showed statistical significance for the marketing students. That is the "friendly" attribute SC2 (see Table 4).

The R^2 of the multiple regression analysis is .327. That is, about 33 percent of the variance of the marketing students' attitudes is accounted by both the tangible and the symbolic attributes of the program, as they are stated above.

Significant attributes for the non-marketing students. For the non-marketing students, there are three tangible attributes of the marketing education program that are important (see Table 5). They are, in a descending order:

FC4. The program provides useful and practical experience through on-the-job training.

FC2. Graduates of the program get jobs with good starting pay.

FC3. The program teacher-coordinator helps students with job placement.

For the same group of students, there are three symbolic attributes of the program that are more important than the remaining seven attributes (see Table 5). They are, in a descending order:

SC7. The "wants to be rich" attribute of the program.

SC2. The "friendly" attribute of the program.

SC4. The "exciting" attribute of the program.

Table 4

Beta Weights and R^2 for Functional Congruities (FC, tangible attributes) and Self-Image Congruities (SC, symbolic attributes) regressed on Students' Attitudes toward the Marketing Education Program

Marketing Students (n=230)

Attributes	Beta	Probability
------------	------	-------------

Tangible

FC1 Training	.254919	.0055*
FC2 Get good job	.062038	.3765
FC3 Job placement	.008988	.8946
FC4 Work experience	.220439	.0178*
FC5 College preparation	.006484	.9223
FC6 Learning experience	-.148514	.0349*
FC7 Work credit	.083913	.3023
FC8 Communication	-.214631	.0273*
FC9 Responsibility	.221465	.0330*
FC10 Career Choice	.059550	.4455

Symbolic

SC1 Modern	.099481	.1040
SC2 Friendly	.268468	.0001*
SC3 Confident	-.061833	.3666
SC4 Exciting	-.009118	.8960
SC5 Professional	.026861	.7090
SC6 Sophisticated	-.092375	.1798
SC7 Wants-to-be-rich	.027260	.6506
SC8 Business-like	-.001099	.9870
SC9 Sociable/outgoing	-.063835	.3439

R^2 .32732 (33%)

* $P < .05$

Note. The scale used to measure the attributes ranged from 1, the best score, to 5, the worst score.

Moreover, the R^2 in the analysis is .396 (see Table 5).

Table 5

Beta Weights and R^2 for Functional Congruities (FC, tangible attributes) and Self-Image Congruities (SC, symbolic attributes) regressed on Students' Attitudes toward the Marketing Education Program

Non-Marketing Students (n=228)

Attributes	Beta	Probability
------------	------	-------------

Tangible

FC1 Training	.093925	.2888
FC2 Get good job	.185039	.0114*
FC3 Job placement	.163626	.0297*
FC4 Work Experiment	.247447	.0040*
FC5 College preparation	-.087435	.1702
FC6 Learning experience	-.041961	.5360
FC7 Work credit	-.076477	.3393
FC8 Communication	-.079700	.4111
FC9 Responsibility	.039267	.6672
FC10 Career Choice	.102904	.2753

Symbolic

SC1 Modern	.103551	.1059
SC2 Friendly	.164664	.0144*
SC3 Confident	-.036476	.6020
SC4 Exciting	.147793	.0288*
SC5 Professional	.003981	.9527
SC6 Sophisticated	-.006284	.9258
SC7 Wants-to-be-rich	.153336	.0123*
SC8 Business-like	-.013013	.8382
SC9 Sociable/outgoing	-.017460	.7997

R^2 .39595 (40%)

* $P < .05$

Note. The scale used to measure the attributes ranged from 1, the score, to 5, the worst score.

 Table 6

Beta Weights and R^2 for Functional Congruities (FC, tangibles attributes) and Self-Image Congruities (SC, symbolic attributes) regressed on Students' Attitudes toward the Marketing Education Program

Combined Students (n=458)

Attributes	Beta	Probability
------------	------	-------------

Tangible

FC1 Training	.187585	.0021*
FC2 Get good job	.069946	.1484
FC3 Job placement	-.006399	.8883
FC4 Work experience	.211569	.0004*
FC5 College preparation	-.075166	.0810
FC6 Learning experience	-.062148	.1860
FC7 Work credit	.101166	.0640
FC8 Communication	-.068738	.3025
FC9 Responsibility	.108607	.0957
FC10 Career Choice	.050825	.3827

Symbolic

SC1 Modern	.132336	.0018*
SC2 Friendly	.182391	.0001*
SC3 Confident	.040324	.3886
SC4 Exciting	.087614	.0611
SC5 Professional	.019583	.6774
SC6 Sophisticated	.0008092	.9861
SC7 Wants-to-be-rich	.102151	.0119*
SC8 Business-like	-.006166	.8891
SC9 Sociable/outgoing	-.007137	.8793

R^2 .36664 (37%)

* $P < .05$

Note. The scale used to measure the attributes ranged from 1, the best score, to 5, the worst score.

About 40 percent of the variance in the non-marketing students' attitudes is accounted for by both the tangible and the symbolic attributes of the marketing education program (the ones stated above). The beta weights for the combined group (marketing and non-marketing) are in Table 6 (also see Table 1).

Another finding of interest is the one relating to the tangible attribute "the program prepares students for college." This attribute does not relate well with the students' attitudes toward the marketing education program. For example, the beta weight for this attribute (FC5, see Table 4) for marketing students is only .006 and -.087 for non-marketing students (see Table 5). Furthermore, the correlations between students' attitude totals and this attribute are only .158 and .106 for marketing and non-marketing students respectively (low correlation). In addition, the mean of this attribute is 6.889 and 5.948 for marketing and non-marketing students respectively (the higher the number the less the agreement). These means are higher than all the means for the other tangible attributes, for both groups of students.

Relationship of social class and students' attitudes toward the marketing education program.

Data were also collected concerning the social class of the students in order to see if it has any differential relationship to the students' attitudes toward the program. The social class indicators that were analyzed (along with the functional and

self-image congruences) for their relationship to attitude were mother's education, father's education, mother's occupation, father's occupation, and income of the household. Multiple regression analysis was carried out and the results along with the R^2 , are found in Table 7.

Table 7

Beta Weights and R^2 for Functional Congruence Total (FCT), Self-Image Congruence Total (SCT), and Social Class Indicators regressed on Students' Attitudes toward the Marketing Education Program

	Marketing Students		Non-Marketing Students		Combined	
	Beta	Probabil.	Beta	Probabil.	Beta	Probabil.
FCT	.484496	.0000*	.479218	.0000*	.480703	.0000*
SCT	.044042	.6125	.196110	.0132*	.162266	.0037*
INC	.142099	.1516	.209499	.0132*	.229281	.0002*
MED	.122080	.2179	.295780	.0020*	.219376	.0007*
FED	-.135066	.2755	-.138673	.1479	-.120412	.0938
MOC	-.020219	.8200	.044053	.5790	.037707	.5021
FOC	-.119736	.2754	-.040609	.6355	-.083323	.1919
R^2	.28775 (29%)		.47557 (47%)		.41680 (42%)	
	n=110		n=101		n=211	
	DF=109, F=5.88680		DF=100, F=12.04791		DF=211, F=20.72589	

* $P < .05$

(Table 7 continued)

INC=income

MED=mother's education

MOC=mother's occupation

FED=father's education

FOC=father's occupation

DF=degrees of freedom

F=the F value of significance

Note. The scale used to measure the attributes ranged from 1, the best score, to 5, the worst score.

Analysis was also conducted by omitting the income indicator (the highest missing data was observed with income). There was no difference in the findings as a result of this analysis.

For the marketing students, data indicate that only the functional congruence is statistically significant. The R^2 for the aforementioned variables is .288 (29%). The impact of the self-image congruence and the various social class indicators is not statistically significant for this group (see betas in Table 7). For the non-marketing students, the variables that are statistically significant are (in descending order): functional congruence, mother's education, income, and self-image congruence. The R^2 for the above variables is .476 (47%). For the combined group of students, marketing and non-marketing students together, the variables that were statistically significant are (in descending order): functional congruence, income, mother's education, and

self-image congruence. The R^2 for the variables is .417 (42%). Therefore, for the three groups of students, statistical significance for social class variables was found only in the non-marketing group and in the combined group.

Relationship of gender and students' attitudes toward the marketing education program.

The gender variable was included in the analysis as an additional manipulation of the data (not as a separate research question) in order to see if gender has any significant relationship to the students' attitudes toward the marketing education program. The analysis indicated that gender has no statistically significant relationship to students' attitudes toward the program (see Table 8). However, the beta weight for the non-marketing students was barely insignificant (e.g., probability .0531), pointing to a direction of females having a more positive attitude toward the marketing education program than males. An additional analysis was conducted by omitting the income indicator to see if there is a difference in the findings. This allowed for a higher number of students to be included in the analysis since the highest number of missing data was observed with the income indicator. The findings of the second analysis showed no difference than the first for all groups of students (e.g., probability for the non-marketing group is .0737).

Table 8

Beta Weights for variable Gender (Sex) regressed on Students'

Attitudes toward the marketing education program.

Analysis of variance for Gender and Students' Attitudes.

Marketing Students		Non-Marketing Students		Combined Students	
Beta	Probabil.	Beta	Probabil.	Beta	Probabil.
.094391	.2703	-.147680	.0531	-.008319	.8789
n=110		n=101		n=211	

*P<.05

Analysis of Variance

Marketing students

	DF	Sum of Squares	Mean Square
Regression	8	15.75540	1.96943
Residual	101	37.41733	.37047

F= 5.31604, P= .0000

Non-marketing students

	DF	Sum of Squares	Mean Square
Regression	8	42.67086	5.33386
Residual	92	43.25860	.47020

F= 11.34375, P= .0000

(Table 8 continued)

Combined Students

	DF	Sum of Squares	Mean Square
Regression	8	82.59559	10.32445
Residual	202	115.53711	.57197

F=18.05081, P= .0000

Note. The scale used to measure the attributes ranged from 1, the best score, to 5, the worst score.

Findings of the qualitative analysis. The purpose of the two qualitative questions was for students to state what they liked and disliked most about the marketing education program in their schools. The analysis showed a re-occurring theme: Most respondents stated that one predominant reason they like the marketing education program is because it prepares students for the business world.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The present chapter will contain the following six sections: 1) summary of the study, 2) summary of the findings, 3) conclusions 4) recommendations, 5) suggestions for future research, and 6) discussion.

Summary of the Study

The present research measured the relative importance of the tangible and symbolic attributes of the marketing education program to high school marketing and non-marketing students. The findings of the study will help marketing educators and program planners to develop effective promotional campaigns. It will also provide information to assist in redesigning existing campaigns, in an effort to attract and retain students with the right aptitude and interest. In addition, the findings can help to modify existing aspects of the marketing education program in order to align it with the educational and career aspirations of the students. Therefore, the following research questions were answered:

1. What are the tangible and symbolic attributes of the marketing education program?
2. To what degree do tangible attributes of the marketing education program relate to students' attitudes toward the program?
3. To what degree do symbolic attributes of the marketing education program relate to students' attitudes toward the program?

4. Which set of attributes, tangible or symbolic is more important in relation to students' attitudes toward the program?
5. Which of the tangible and which of the symbolic attributes are most important in relation to students' attitudes toward the program?
6. Is there a difference between the marketing and non-marketing education students in regard to which attributes of the marketing education program they believe to be the more important, the tangible or the symbolic?

This study measured how marketing and non-marketing students felt toward selected tangible and symbolic attributes of the program. In addition, their overall attitude toward the marketing education program was measured by designing four global attitude questions. There were also two qualitative questions included in the questionnaire which asked students to state what they like and dislike the most about the marketing education program in their schools. The ratings of the tangible attributes of the program were measured by employing the Bass-Talarzyk model. The ratings of the symbolic attributes of the program were measured by employing the ideal social congruity model.

The Bass-Talarzyk model measures the student's evaluation or belief of a tangible attribute of the program and the importance the student places on that selected attribute of the program. The belief and the importance of each attribute are multiplied, summed for all attributes, and then divided by the number of attributes. This

produces a final score which is the student's functional evaluation of the marketing education program. The Bass-Talarzyk model has been successfully used for the measurement of students' attitudes toward courses. The ten tangible attributes for the study were obtained through a preliminary study that was conducted with students in two local high schools through focus groups and surveys, and from related literature.

The self-image model and the ideal social self-image model measure the program's image (the image of a person enrolled in marketing education) and the student's ideal social self-image respectively (high school students are concerned with the image their peers have of them, thus the ideal social self-image is appropriate here). The sum of the absolute difference between the program's image on nine symbolic attributes and the student's ideal social self-image on the same nine symbolic attributes gives us the total congruence score for each student. The self-image congruence models have been used repeatedly and successfully for the measurement of image for products and services (Sirgy, 1982, 1985, 1990).

The nine symbolic attributes of the program's image and the student's ideal social self-image were measured by using the semantic differential scale. This is a five-point scale with bipolar adjectives. These adjectives or symbolic attributes that were used in this study were obtained from a preliminary study through focus groups, a survey that was conducted with local high school students, and through a search in related literature.

In addition, demographic information of the students such as gender, income of household, education and occupation of parents, and living arrangements was obtained from the students. The purpose of the social class information was to find out if there is a difference of attitudes among students coming from different social strata.

The population of the study consisted of all the 210 high schools in Virginia that have marketing education programs. Students in grades nine through 12 were selected for the study. By using the stratified cluster sampling technique, 15 high schools were selected to participate. A sample of 430 marketing and non-marketing students (an equal number of each) was established, based on the criteria of an $\alpha=.05$, effect size (d)=.10, and power of test=.90 (see Appendix R). To compensate for an assured response of 80 percent, 540 questionnaires were sent. The questionnaires were sent to the schools for completion at the end of April and beginning of May, 1990. Written permission was secured from the Superintendent or Director of Evaluation in each of the selected school systems. Thirty-six students were systematically selected from each of the high schools in the sample (half marketing and half non-marketing students) to complete the survey. A set of 503 questionnaires were returned for analysis, 254 marketing students, and 249 non-marketing students. All questionnaires were returned to the researcher promptly in May and June 1990. One high school chose not participate due to time constraints.

The first research question was answered by obtaining information from focus group comments, surveys, and related literature. The

information was analyzed by the researcher, and the data from the focus group survey was content analyzed by three other judges as well. For the remaining questions the analysis involved Pearson correlation coefficients for the second and third research questions, and multiple regression analysis (beta weights and R^2) for the fourth, fifth, and sixth research questions. Regression analysis was also used in order to see if there was any relationship between attitude and the social class indicators and gender.

For the second and third research questions, the attitude score was correlated with the functional congruence score of each student, and then the self-image congruence score respectively. This correlation was done for each attribute congruence with each of the attitude indicator scores, as well as for the total congruence score with the total attitude score for each student. For the fourth research question beta weights were calculated for the total tangible attribute set and for the total symbolic attribute set in order to find which of the two has greater importance. For the fifth research question, the beta weights were also calculated for each tangible congruence (tangible attribute) and for each self-image congruence (symbolic attribute). The purpose was to find out which of the tangible attributes and which of the symbolic attributes of the marketing education program have statistically significant relationships to students' attitudes. Beta weights were also calculated for the sixth question for each group of students (marketing, non-marketing students, and combined). This analysis showed if there is a difference between the marketing students and

the non-marketing students in regard to which tangible and which symbolic attributes are more important to them. Moreover, the same groups of students were examined in regard to which attributes of the program they see important when social class indicators are included in the analysis. In addition, for the last four analyses (e.g., research questions 4-6 and social class analysis) the R^2 was calculated in order to see the contribution of the tangible and symbolic attributes and social class indicators to the variance of the attitude variable.

Summary of Findings

A close examination of the analysis of the data produced the following findings:

1. The study identified ten tangible and nine symbolic attributes of the marketing education program. These were identified as being the important attributes of the program (see Table 1).
2. Overall, students' attitudes toward the marketing education program are more highly related to the tangible attributes (Total Functional Congruence or FCT) of the program than the symbolic attributes (Total Self-Image Congruence or SCT) of the program. The correlation between the combined students' attitude and functional congruence is .44 and for attitude and self-image congruence is .32.
3. Marketing students' attitudes toward the marketing education program are more closely related to the tangible attributes of the program, with little relationship to the symbolic attributes. For example, the correlation between attitude and total functional congruence (FCT) is .44, and the correlation between attitude and

self-image congruence (SCT) is .15. Furthermore, the beta weight for FTC is statistically significant, but the beta weight for SCT is not significant.

4. Non-marketing students' attitudes toward the marketing education program are more closely related to the tangible attributes of the program, but the relationship to the symbolic attributes is also significant. For example, the correlation between attitudes and FCT is .42, and the correlation between the attitudes and SCT is .33. This is more than twice as high as the .15 obtained for the marketing students. Also, the beta weights for both FCT and SCT are statistically significant for the non-marketing students, whereas for the marketing students (as stated earlier), only the FCT beta weight was statistically significant.

5. Students' attitudes, both marketing and non-marketing combined, are more closely related to the set of tangible attributes of the marketing education program, than the set of symbolic attributes (e.g., beta weight for the FCT set is .407, and for the SCT set is .269).

6. Marketing students' attitudes are more closely related to the set of tangible attributes of the marketing education program, with very little relationship to the set of symbolic attributes of the program. The beta weight for the set of tangible attributes was statistically significant, but it was not the case for the set of symbolic attributes (e.g., .409 and .066 respectively).

7. Non-marketing students' attitudes are more closely related to the set of tangible attributes of the marketing education program

than to the set of symbolic attributes. However, the relationship to the set of symbolic attributes is also very important. For example, both FCT and SCT beta weights are statistically significant (.412 and .316 respectively), with a small difference between them. Moreover, 17 percent of the variance of the students' attitudes toward the program is explained by FCT, and 11 percent of the variance is explained by SCT (R^2 of 17 and 11 percent respectively). It is interesting to note that the non-marketing students' attitudes are significantly related to the set of symbolic attributes of the program, whereas the marketing students' attitudes are not significantly related (R^2 for FCT, SCT, for marketing students is 20 and 2 percent respectively). This finding is consistent with the Self-Image and Functional Congruence model proposed by Sirgy, Johar, and Samli (1989). It supports the notion that when consumers do not know much about the tangible attributes of a product or program, they will rely more on their self-image congruity process (symbolic attributes) to evaluate the product or program.

8. Students' attitudes, marketing and non-marketing combined, are more closely related to the following tangible attributes of the marketing education program (in a descending order):

FC4. The program provides useful and practical experience through on-the-job training.

FC1. The program adequately trains students for employment in marketing-related jobs.

The symbolic attributes that seem to significantly relate to the combined group of students regarding their positive attitudes toward

the program, are (in a descending order):

SC2. The "friendly" attribute of the program.

SC1. The "modern" attribute of the program.

SC7. The "wants to be rich" attribute of the program.

It should be noted here that the above tangible and symbolic attributes of the program are contributing about 37 percent (significant R^2 .366) to the variance of the attitude variable (the dependent variable).

9. The marketing students' attitudes are significantly related to the following tangible attributes of the marketing education program (in a descending order):

FC1. The program adequately trains students for employment in marketing-related jobs.

FC4. The program provides useful practical experience through on-the-job training.

FC8. The program teaches students how to communicate effectively with people.

FC9. The program teaches students responsibility.

FC6. The program involves a variety of learning experiences.

Only two of the above tangible attributes, FC8 and FC6, relate negatively to students' attitudes toward the marketing education program. For example, the more students believe that the program teaches students how to communicate effectively, the less they feel positive about the program. This phenomenon perhaps can be explained by the fact that marketing students believe that they are in the program to obtain the most practical, and the most job-related

benefits they can possibly get. They are in the program for the practical aspect only (e.g., "training for employment", and "practical experience" are the most important tangible attributes to them). Therefore, they see the "communication" and the "variety of learning experiences" attributes as not important or secondary to the reason (the practical one) they are in the program.

There is only one symbolic attribute of the program that significantly relates to marketing students regarding their positive attitudes toward the program (the strongest of all attributes combined). This attribute is:

SC2. The "friendly" attribute of the program.

The contribution of the above attributes (five tangible and one symbolic) to the variance of the attitude variable was found to be 33 percent (significant R^2 .327). That is, 33 percent of the marketing students' positive attitudes toward the program is explained by the five tangible and the one symbolic attributes of the program.

10. The non-marketing students' attitudes are significantly related to the following tangible attributes of the marketing education program (in a descending order):

FC4. The program provides useful practical experience through on-the-job training.

FC2. Graduates of the program get jobs with good starting pay.

FC3. The program teacher-coordinator helps students with job placement (find a job after graduation).

The symbolic attributes of the program that significantly relate to non-marketing students' attitudes toward the program, are

as follows (in a descending order):

SC7. The "wants to be rich" attribute of the program.

SC2. The "friendly" attribute of the program.

SC4. The "exciting" attribute of the program.

About forty percent (significant R^2 .39595) of the non-marketing students' positive attitudes toward the program is explained by the six attributes (tangible and symbolic), as stated above.

11. A set of variables (functional congruence total (FCT), self-image congruence total (SCT), mother's education, fathers' education, mother's occupation, fathers' occupation, and income of household) were put into the analysis. The purpose was to determine their relationship to students' attitudes toward the marketing education program. The findings were as follows:

a. Students' attitudes, marketing and non-marketing combined, are significantly negatively related to (in a descending order) FCT, income, mother's education, and SCT (see Table 7 for beta weights). The higher the household income and mother's education, the more students feel negatively about the program. About 42 percent (significant R^2 .417) of the variance of students' attitudes toward the program is explained by the above four attributes.

b. Marketing students' attitudes are significantly related only to FCT. The other social class variables do not have any significant relationship to the marketing students' attitudes toward the program (significant R^2 .288).

c. Non-marketing students' attitudes are significantly negatively related to (in a descending order) FCT, mother's

education, income, and SCT (significant R^2 .476). The higher the household income and mother's education, the more students feel negatively about the program.

12. The analysis of the two qualitative questions showed that most students stated that one predominant reason they like the marketing education program is because it prepares students for the business world.

13. The tangible attribute of the marketing education program "the program prepares students for college" does not relate well to students' (both marketing and non-marketing) attitudes toward the program. The attribute is considered a weak one, meaning that there is little relationship between students' attitudes toward the marketing education program and the belief that "the program prepares students for college".

Conclusions

Based on the findings, the following conclusions can be made:

1. Students' attitudes overall are closely related to the tangible attributes of the marketing education program and to a lesser degree, to the symbolic attributes of the program. This conclusion is consistent with the findings of studies conducted by Samli and Sirgy (1981), Sirgy and Samli (1986), and (Sirgy, Johar, Samli and Claiborne, in press). They showed that functional evaluation (tangible attributes) precedes and is determined by self-image evaluation with a strong correlation between functional evaluation and self-image congruence (symbolic attributes).

2. Marketing students attitudes', in particular, are more closely related to the tangible attributes of the program and to an insignificant degree, to the symbolic attributes of the program.

3. Non-marketing students attitudes', in particular, are more closely related to the tangible attributes of the program and to a lesser, but significant degree, to the symbolic attributes of the program. It should be noted however, that the relationship to the symbolic attributes of the program is very close to the relationship to the tangible attributes. Therefore, the relationship to these attributes is considerable for the non-marketing students, whereas the case is reversed for the marketing students. This conclusion is again consistent with the studies by Samli and Sirgy (1981), Sirgy and Samli (1985), and (Sirgy, Johar, Samli, and Claiborne, in press).

4. Marketing students' attitudes are predominantly related to a number of tangible attributes and only to one symbolic attribute of the marketing education program. The following (one) symbolic and (five) tangible attributes of the program are stated below in a descending order:

SC2. The "friendly" attribute of the program.

FC1. The program adequately trains students for employment in marketing-related jobs.

FC9. The program teaches students responsibility.

FC4. The program provides useful practical experience through on-the-job training.

FC8. The program teaches students how to communicate effectively with people.

FC6. The program involves a variety of learning experiences.

5. The non-marketing students' attitudes are predominantly related to the following tangible and symbolic attributes of the marketing education program (in a descending order):

FC4. The program provides useful practical experience through on-the-job training.

FC2. Graduates of the program get jobs with good starting pay.

SC7. The "wants to be rich" attribute of the program.

SC2. The "friendly" attribute of the program (symbolic attribute).

SC4. The "exciting" attribute of the program (symbolic attribute).

FC3. The program teacher-coordinator helps students with job placement (find a job after graduation).

6. Social class (mother's and father's education, mother's and father's occupation, and income of household) do not have any differential relationship to marketing students' attitudes toward the marketing education program. Social class is not a moderator, therefore, students' attitudes toward the program's attributes have no significant relationship to any of the social class indicators put in the analysis.

7. Some indicators of social class, mother's education and household income, were found to have a negative relationship to non-marketing students' attitudes toward the marketing education program (see Table 7). Therefore, for the non-marketing students, mother's education and income are negative moderators. This can be

explained perhaps by the fact that students coming from high income households and with educated mothers see themselves as college-bound students. The marketing education program to them is a vocational program that is for the non-college-bound students. Therefore, they do not identify with it, and thus they develop an unfavorable attitude toward the program. Parents' influence on their children's career choices through role modeling has been supported by a recent study of James Stone III (1989).

8. The gender variable was included in the analysis and the results showed that it has no statistically significant relationship to students' attitudes toward the marketing education program.

9. The tangible attribute of the marketing education program "the program prepares students for college" is judged as a weak attribute by the students (e.g., a high mean of 6.3 was obtained as compared to the means of the other attributes--the higher the number, from 1 to 5, the less the agreement). This indicates that students believe that the program does not prepare students for college. The low correlation between this attribute and attitude, as well as its low beta weight, further confirms the above conclusion. If marketing educators want to provide a foundation for students who plan to major in marketing in college, they should offer the Marketing Management course and promote it as a college preparation course. Students who plan to go on to a junior or senior college can benefit from this course.

For marketing education programs whose main purpose is to prepare students for jobs that do not require the baccalaureate degree, the

"pre-baccalaureate" preparation image is a positive one since that is the program's philosophy. However, college-bound students will not be influenced to enroll in a marketing course if there is no message in the program's image that marketing can be a college-preparation course. Therefore, in order to convince college-bound students to enroll in marketing courses, it is important to make this an attribute of these programs and change the mono-image perception to a dual-image perception: preparation for both levels, the pre-baccalaureate level and beyond.

10. The findings from the qualitative analysis indicate that most students (both marketing and non-marketing) stated that one predominant reason they like the marketing education program is because it prepares students for the business world. This is a positive finding because it seems that most students perceive marketing as a professional, business-like field. Furthermore, this finding enhances the previous conclusion that students' attitudes are more closely related to the tangible attributes of the program such as preparing students for employment in the business world and providing them with useful practical experience.

Recommendations

The following recommendations are suggested based on the findings and conclusions of the this study.

1. Design a promotional campaign for each of the following two groups of students:
 - a. Marketing students
 - b. Non-marketing students

2. The promotional campaign for the marketing students should emphasize the strongest (statistically significant) tangible and symbolic attributes found for this group of students in this study. The logo should incorporate the strongest of all attributes, which is: The "friendly" attribute of the program. An example of the message can be as follows: "Stay with your friends--stay in marketing."

3. The promotional campaign for the non-marketing students should emphasize the strongest (statistically significant) tangible and symbolic attributes of the program found for this group of students in this study. These are: The "program provides useful practical experience" attribute, the "graduates get good jobs" attribute, the "wants to be rich" attribute, the "friendly" attribute, the "exciting" attribute, and the "teacher helps students with job placement" attribute. As observed earlier, there are more symbolic attributes that are important to this group than in the marketing group, therefore the promotional campaign should also emphasize the symbolic attributes. For both groups, the logo of the message should incorporate the strongest of all attributes, which is: "The program provides useful practical experience through on-the-job training". Perhaps the key words that would be appropriate for the logo would be "Gain practical experience while in school: Enroll in Marketing Education". Further, an example of using the symbolic attributes in the message is as follows: "Make your Career in Marketing a money-making career, a career full of excitement and friendly people."

4. The focus group and the qualitative analyses revealed that there is a lack of information concerning marketing strategies aimed at various groups such as students, parents, and teachers. A promotional campaign should include posters and informational brochures and flyers that will be available to students, teachers, guidance counselors, parents, and to the general public. These informational packages should emphasize the strongest tangible and symbolic attributes found in the study. Moreover, it is imperative that during registration period, the course information package should include a brief but effective description of the marketing courses offered. For example, the information should not only state that marketing is retailing/selling or fashion merchandising, but that it is equally advertising, pricing, distribution, and managing of goods and services. Also, adding the statement "it prepares you for the world of business" will be very complementary to the program. It is important that the information brochures are available on the counters in the main office of the school, for parents, students, and school personnel to view and use, thus achieving maximum exposure and awareness for those concerned.

5. Based on preliminary findings from the focus group sessions, it appears that there may be a problem with guidance counselors' perceptions of marketing education. Therefore, the promotional campaign should include a brief and attractive brochure designed primarily for the guidance counselors. It should highlight a true image of marketing and what it accomplishes with an emphasis on the important attributes found in this study: "Work experience", "trains

for employment", "friendly", "modern", and "wants to be rich". It should also include the importance of the marketing life-skills (e.g., employability and interpersonal skills) that the students will gain. In addition, the brochure should point out that marketing courses give students the business foundation they need for entering college, particularly if they will major in any of the business areas. The same brochure can also be used as a promotional piece for local business personnel. This brochure can be a generic one, designed at the local, state, or national level, and disseminated to high schools with marketing education programs.

6. It is highly recommended that at least twice a year (e.g., once in each semester), the marketing teacher-coordinator should set up an appointment with each guidance counselor in his or her high school in order to discuss the scope, objectives, and ultimate benefits of marketing education. Emphasis should be put on the strongest tangible and symbolic attributes of marketing education as well as on the benefit of the marketing life skills to students. The counselor should be influenced to discuss with students the tangible and symbolic attributes of the marketing education program that have been found to be important to students. It should also be emphasized that marketing education will give students the business foundation they need for college.

7. The focus group recommended that the words "on-the-job training" or "co-op" which identify the work-experience component of the marketing education program, should be changed to "internship".

The new term has more academic and professional appeal (or positive image) than the former terms.

8. The marketing education program should continue to customize its offerings based on the needs of the community in which the school is located and the needs of the students. In some schools where general marketing is offered, fashion merchandising is promoted as the main emphasis of the program. The image of this single emphasis should be downplayed in order to equally emphasize other aspects of marketing such as promotion, pricing, distribution, etc.. The danger of emphasizing only one area, fashion merchandising for example, is that students (particularly non-marketing students) will perceive marketing as being a narrow field. Therefore, they will not see any relevance of the field of marketing to their future career plans (unless they want to major in fashion), and hence they will not be interested in enrolling in such a course. This recommendation is based on data obtained from the focus groups and qualitative analyses of the study.

9. The teacher-coordinator should emphasize, during instruction, the attributes "work experience" and "training for employment", as the major benefits of the marketing education program. These attributes of the program will help students get a good job, as well as enhance their chances for advancement in that job. It should be pointed out that today it will be much easier to get a job with job-related experience. Thus, the marketing education program is a very useful program because it provides students with initial job experience.

Suggestions for Future Research

1. The model and instruments used in the present study can be used in other service areas of vocational education to identify the symbolic and tangible attributes that may attract students to these service areas.
2. The present model can be used in a state, regional or national study to find out about the relative importance of the tangible and symbolic attributes of the marketing education program.
3. Research should be undertaken to find out what other attributes or variables of the program significantly influence students' perceptions toward the program (e.g., parents' perceptions of the program, friends' perceptions of the program, guidance counselors' perceptions of the program, etc.).
4. Research is needed to examine the on-the-job training component of the program. For example, a study might be conducted to determine if the number of hours worked each week influence students' perceptions. If the program offers the opportunity to students to enroll without on-the-job training or with a requirement of fewer hours per week of work, more students might be able to enroll. Also there are some schools where their marketing programs offer both the co-op and the non-co-op option. It is recommended that research be conducted to determine the effectiveness of this dual approach and to see if more schools should implement it.
5. More research should be conducted to find out the perceptions of guidance counselors and school administrators toward marketing

education and what they know about the program. Their support is essential.

6. It will be very useful to find out how much influence guidance counselors have on students' decisions to enroll in marketing courses and how that influence can be modified in favor of marketing education.

7. Follow-up studies should be conducted to assess the outcomes of the proposed promotional campaigns, based on the findings of this study.

8. Research should be conducted to determine if there is a need for college-bound marketing courses.

9. Research should be conducted to measure students' perceptions toward other high school programs (e.g., Science program, English program), and then determine how those relate to students' perceptions toward the marketing education program.

Discussion

In the first part of the 1980s, marketing education enrollments were declining nationally. However, since 1985, a steady increase has been observed, with this trend continuing to date (Marketing Education State Supervisors, personal communication, April-September, 1990). This increase is a very positive sign indicating that the program is meeting the needs of the students and of future professionals. However, according to U.S. Department of Labor statistics (1988-89), employment in marketing and sales occupations is projected to grow by 30 percent by the year 2000. This trend of employment growth is anticipated to continue.

The promising employment picture requires an on-going successful effort on the part of marketing educators to offer an effective and successful marketing program that will continue to meet the needs of the students. However, a program may be very successful, but if this is not communicated to the public then it might not be able to grow. In states such as Virginia, where enrollments have been declining (Virginia Marketing Education State Supervisor, personal communication, April-September, 1990), an effective promotional campaign and perhaps a program modification becomes even more essential.

The present study aimed to investigate the relationships of the tangible and symbolic attributes of marketing education to student attitudes about the program for both the marketing and the non-marketing students at the high school level. Specifically, the researcher tried to find out which of the two sets of attributes of the marketing education program, the tangible or the symbolic (as well as which attributes of each set), are closely related to students' attitudes toward the program. The positive attitude is assumed to relate closely to students' willingness to enroll and remain in the program.

The findings of the study will help program planners, educators, and teachers to develop effective promotional plans and modify existing program components that will attract and retain students with a career interest in marketing. In addition, the appropriate modification of existing program components should lead to a program of higher quality and of greater demand. Moreover, by

analyzing the marketing and non-marketing students separately in relation to their attitudes toward the attributes of the program, the need for developing different promotional plans for the two groups of students is addressed.

The analysis indicated that marketing and non-marketing students' attitudes alike are more closely related to the tangible attributes of the marketing education program. This is consistent with Clodfelter's study (1984) who found that there is a set of functional attributes of the marketing courses that students feel are most important in helping them to decide to enroll in a marketing course. Also it is consistent with Veres (1981) study which found that students enroll in vocational classes because the classes lead them to earn good money and provide them with job opportunities. In the present study, it was found that for the marketing students, the important tangible attributes of the program are: the program adequately trains for employment, provides useful and practical experience, and teaches students responsibility. For the non-marketing students, the important tangible attributes of the program are: The program provides useful and practical experience, program graduates get jobs with good starting salary, and the marketing teacher helps students with job placement. These important tangible attributes to each group should be emphasized in the promotional campaign and in the redesigning of the program, in order to attract more students and offer a better quality program in all aspects.

Both groups of students' attitudes, marketing and non-marketing, were also more closely related to selected symbolic attributes of the program. This secondary relationship should not be ignored because it was shown to be significant, especially for the non-marketing students. The marketing students placed importance on the "friendliness" attribute of the program (the most important attribute of all tangible and symbolic attributes combined for the group). The non-marketing students placed importance on three symbolic attributes ("wants to be rich", "friendly", and "exciting"). Thus, the non-marketing students' attitudes are more closely related to symbolic attributes of the program than the marketing students' attitudes. This finding is strongly supported by a significant beta weight for the non-marketing students for the symbolic attributes, and a non-significant beta weight for the marketing students for the same attributes.

Therefore, for the non-marketing students, 11 percent of their attitudes toward the marketing education program is associated with the symbolic attributes of the program (17 percent for the tangible attributes). This is the highlight of the findings of the study. In the social sciences, a 11 percent of the variance of the dependent variable is a very good percentage indicating a significant relationship. In the past, the relative importance of the symbolic attributes of the marketing education program has not been examined, and thus the importance of these attributes has been unknown.

Why should we pay attention to the non-marketing students for whom program symbolism is so important? Among these students there

are many potential enrollees for marketing education. The non-marketing student group is the primary target market for the program. It would be very difficult to single out the business-oriented group as the potential target market. High school students are not definite what career route they will pursue, and they are easily influenced to change regarding future career interests. The researcher feels that the non-marketing group is the appropriate primary target market for the marketing education program, and thus the one that needs to be convinced and influenced the most by the benefits (both tangible and symbolic) of the program or courses (the marketing student group is the secondary target group). Moreover, this group can also influence its peer group to enroll. The marketing students have already been influenced positively and are participating in the program (although we should continue to develop effective promotional strategies and program designs to keep them in the program). It should be pointed out that a positive influence on students to enroll in the marketing education program will result in a positive influence toward their peer group, parents, counselors, teachers, etc.. As it was pointed out earlier, a 30 percent increase has been projected in marketing and sales occupations by the year 2000. Thus, there will be a definite need for well-trained marketing personnel in the near future. Marketing educators are interested in developing a positive image of the program, which will result in the enrollments of students who can benefit from this program. Therefore, non-marketing students need to be targeted with an effective promotional campaign that will inform,

educate, influence, and convince them to enroll in the program. The promotional campaign should emphasize those tangible and symbolic attributes of the program that were found to be highly related to the non-marketing students' attitudes toward the program. Furthermore, the important tangible and symbolic attributes for both groups of students found in this study should help marketing educators to redesign some aspects of the program in order to achieve higher quality in all areas of the program.

The preliminary focus group interviews, the qualitative analysis of the study, and the researcher's view bring out the point that some students are not interested in marketing education because it is not thought of as a college bound program. In addition, the study findings showed a high mean (the highest of all means of the tangible attributes) for the "college preparation" attribute, indicating that students believe that marketing does not prepare students for college. Maybe it was no surprise to find that both marketing and non-marketing students believe that the marketing education program does not prepare students for college. This is both a positive and negative attribute of the program. It is a positive attribute because the purpose of marketing education is to develop competent workers in and for the major occupational areas within marketing, during and after high school (Lynch, 1983, p.16). It is a negative attribute because the students (mostly the non-marketing students) see it as a program that does not prepare you for college, hence if they enroll they see themselves as not prepared for further education.

Since we are interested in attracting more appropriate students into the program and achieving a program of higher quality in all aspects, our attention should focus on the non-marketing students. It is those students whom we can educate and influence to believe that marketing education can provide them with marketable skills whether their intentions are to obtain a job upon graduation or to pursue further education. Therefore, it is important that the program be redesigned to be presented and promoted not only as a whole program but also as a set of courses that students can enroll in. Courses such as a Marketing Management course, without the on-the-job training component, should be available to those students that are interested only in taking a marketing course. This approach to the program can make marketing more appealing to college-bound students as well, who can use the knowledge and in some cases course credit for college.

Therefore, it is proposed that marketing educators implement an aggressive promotional campaign directed mainly to the non-marketing students. It should emphasize the program's tangible and symbolic attributes that were identified through this study. It is also proposed that appropriate redesigning of the program take place, so that marketing educators emphasize and incorporate in the marketing courses and their instructional methods the important tangible and symbolic attributes found in this study. In addition, upper level marketing courses should also be tailored to the academic needs of the non-marketing students that are interested in enrolling in one or two courses for obtaining some basic knowledge in marketing.

Therefore, an effective promotional campaign and appropriate redesigning of some aspects of the marketing education program should result in a program that will appeal to a broader range of students.

REFERENCES

- Adams, J. F. (1980). Understanding adolescence. Boston, Mass.: Allyn and Bacon, Inc..
- Allport, G. W. (1935). Attitudes. In C. Murchinson (Ed.), Handbook of Social Psychology. New York: Clark University Press.
- Bass, F. M., & Talarzyk, W. W. (1972). An attitude model for the study of brand preference, Journal of Marketing Research, 9, 93-96.
- Belch, G. E. (1978). Belief systems and the differential role of the self-concept. In H. Keith Hunt (Ed.), Advances in Consumer Research: vol.5 (pp. 320-325). Ann Arbor, MI: Association for Consumer Research.
- Belch, G., & Landon, E., Jr. (1977). Discriminant validity of a product-anchored self-concept measure. Journal of Marketing Research, 14, (May), 252-256.
- Bettman, J. R., Capon, N., & Lutz, R. J. (1975). Multiattribute measurement models and multiattribute attitude theory: A test of construct validity. Journal of Consumer Research, 1, 1-15.
- Birdwell, Al E. (1968). A study of influence of image congruence on consumer choice. Journal of Business, 41, 76-88.
- Burrow, J. L. (1985). Facing the marketing teacher education crisis. Marketing Educator's Journal, 10(2), 22-30.
- Claiborne, C. B., & Sirgy, M. J. (1990). Self-image congruence as a model of consumer attitude formation and behavior: A conceptual review and guide for future research. In Dunlap, B. J., & Cullowhee, A. (Eds.), Developments in Marketing Science: v. 13

- (pp. 3-7). North Carolina: Academy of Marketing Science, 1990.
- Clodfelter, G. R., & Berns, R. G. (1985). Determination of high school student attitudes toward marketing courses in Virginia. Marketing Educator's Journal, 11 (1), 23-31.
- Clodfelter, G. R. (1984). Determination of high school students attitudes toward marketing and advanced marketing courses in Virginia. Doctoral dissertation, Blacksburg, VA: Virginia Polytechnic Institute and State University.
- Cook, T. D., & Campbell, D. T., (1979). Quasi-experimentation: Design and analysis issues for field settings. Chicago: Rand McNally College Publishing Co..
- Coyle, C. A. (1974). A study and analysis of the perception of marketing executives and marketing marketing graduates of the value of undergraduate marketing progress of four year colleges (Doctoral dissertation, Temple University, 1974). Dissertation Abstracts International, 35, 1418A.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 297-334.
- Davis, R. E. (1985). Marketing teacher education and professional leadership: recommendations for a plan of action. Marketing Educator's Journal, 10 (2), 31-40.
- Delozier, M. W. (1971). A longitudinal study of the relationship between self-image and brand image. Unpublished doctoral dissertation, University of North Carolina at Chapel Hill.
- Delozier, M. W., & Tillman, R. (1972). Self-Image concepts--can they be used to design marketing programs? Southern Journal of

Business, 7 (1) 9-15.

Dolich, I. J. (1969). Congruence relationship between self-image and product brands. Journal of Marketing Research, 6 (February) 80-84.

Dornoff, R. J., & Tatham, R. L. (1972). Congruence between personal image and store image. Journal of the Market Research Society, 14, 45-52.

Dusek, J. B. (1987). Adolescent development and behavior. Englewood Cliffs, New Jersey: Prentice-Hall.

Eggland, S. A. (1980). Program development in marketing and distributive education. Paper presented at a conference on Directions in Marketing and Distributive Education, Vail, Colorado, May.

Ely, V. K. (1984). Cooperative leadership in MDE. Marketing and Distributive Educator's Digest, 9 (2), 11-15.

Festinger, L. (1957). A theory of cognitive dissonance. Stanford, CA: Stanford University Press.

Fishbein, M. (1965). A consideration of beliefs, attitudes, and their relationship. In I. D. Steiner, & M. Fishbein (Eds.), Curent Studies in Social Psychology. New York: Holt, Rinehart and Winstron.

Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behavior. Reading, Massachusetts: Addison-Wesley Publishing Company.

Fornell, C., & Bookstine, F. L. (1982). Two structural equation models: LISREL and PLS applied to consumer exit-voice theory.

Journal of Marketing Research, 19, 440-452.

- Foster, R. D., Elias, J. E., & Smith, C. L. (1983). Program perceptions of marketing and distributive education. Marketing and Distributive Educator's Digest, 9 (1), 29-37.
- Gentry, J. W., Doering, M., & O'Brien, T. V. (1978). Masculinity and femininity factors in product perception and self-image. In H. Keith (Ed.), Advances in Consumer Research: vol.5 (pp.326-332). Ann Arbor, MI: Association for Consumer Research.
- Gillie, A. C., Sr. (1973). Principles of post-secondary vocational education. Columbus: Charles E. Merrill Publishing Company.
- Grubb, E. L., & Grathwohl, H. L. (1967). Consumer self-concept, symbolism, and market behavior: a theoretical approach. Journal of Marketing, 31 (October), 22-27.
- Grubb, E. L., & Hupp, G. (1968). Perception of generalized stereotypes, and brands selection. Journal of Marketing Research, 5, 58-63.
- Grubb, E. L., & Stern, B. L. (1971). Self-concept and significant others. Journal of Marketing Research, 8, (August), 382-385.
- Heider, F. (1946). Belief, attitude, intention and behavior. Reading, Mass.: Addison-Wesley Publishing Company.
- Hinkle, D. E., Oliver, J. D., & Hinkle, C. A. (1985). How large should the sample be? Part II-The one-sample case for survey research. Educational and Psychological Measurement, 45, 271-280.
- Holup, J. P. (1980). A semantic differential study of the connotative meaning of thirty distributive education concepts (Doctoral dissertation, Washington State University, 1980).

Dissertation Abstracts International, 41 (1), 222-A.

Hughes, G. D. (1971). Attitude measurement for marketing strategies. Glenview, Illinois: Scott, Foresman, and Company.

Hutt, R. W. (1975). Perceptions of employers regarding cooperative distributive education programs at the secondary level.

Unpublished doctoral dissertation, Michigan State University, East Lansing, Michigan.

Johnston, W. B., & Packer, A. H. (1987). Workforce 2000: Work and workers for the 21st century. Indianapolis: Hudson Institute.

Krosnick, J., & Judd, C. (1982). Transitions in social influence at adolescence: Who induces cigarette smoking? Developmental Psychology, 18, 359-368.

Lamone, R. P. (1966). The use of semantic differential in a study of self image, product image, and prediction of consumer choice.

Unpublished doctoral dissertation, University of Washington, Seattle, WA.

Landon, E. L., Jr. (1974). Self-concept, ideal self-concept and consumer purchase intentions. Journal of Consumer Research, 1, 44-51.

Lutz, R. J. (1981). A functional theory framework for designing and pretesting advertising themes. In R. J. Lutz (Ed.), Contemporary Perspectives in Consumer Research. Boston: Kent Publishing Company.

Lynch, R. E., & Heath, B. (1982). Marketing and distributive education. Unpublished manuscript, Virginia Polytechnic Institute and State University, Blacksburg, VA.

- Maheshwari, Arun K. (1974). Self-product image congruence: A macro-level analysis. Ann Arbor, MI: University Microfilms International.
- Malhotra, Naresh (1981). A scale to measure self-concepts, person concepts, and product concepts. Journal of Marketing Research, 18, 456-464.
- Martin, W. S., & Bellizzi, J. (1982). An analysis of congruous relationships between self-images and product images. Journal of the Academy of Marketing Science, 10, 473-489.
- Montemayor, R. (1982). The relationship between parent-adolescent conflict and the amount of time adolescents spend alone and with parents and peers. Child Development, 53, 1512-1519.
- Pedhazur, E. J. (1982). Multiple regression in behavioral research. New York: Holt, Rinehart and Winston.
- Plessman, C. K. (1985). The relationship between personality characteristics and job satisfaction of secondary marketing education teachers (Doctoral dissertation, University of Nebraska, 1985). Dissertation Abstracts International, 47, (2), 836B.
- Reed, W. E., & Smith, C. L. (1985). The image of marketing education in Missouri. Marketing Educator's Journal, 11 (1), 14-23.
- Rogers, C. (1951). Client-centered therapy: its current practices, implications, and theory. Boston: Houston-Mifflin.
- Rosenberg, M. (1979). Conceiving the Self. New York: Basic Books.
- Rosenberg, M. J. (1960). The experimental investigation of a value theory of attitude structure. Unpublished doctoral dissertation, University of Michigan, Ann Arbor, MI.

- Ross, I. (1971). Self-Concept and brand preference. Journal of Business of the University of Chicago, 44, 38-50.
- Rury, C. A. (1983). Factors and perceptions of the Oklahoma DE/marketing programs that influence secondary students to enroll (Doctoral dissertation, Oklahoma State University, 1983). Dissertation Abstracts International, 44, (10), 2972A.
- Samli, A. C., & Sirgy, M. J. (1981). A multi-dimensional approach to analyzing store loyalty: A predictive model. In K. Bernhardt & B. Kehoe (Eds.), The changing marketing environment: New theories and applications (pp. 113-116). Chicago, Ill.: American Marketing Association.
- Samson, H. E. (1980). Distributive education; identity and image. Paper presented at a Conference on Directions in Marketing and Distributive Education, Vail, Colorado, May.
- Sanchez, H. T., O'Brien, T. V., & Summers, G. W. (1975). Self-concept and consumer motivation. Proceedings of the American Marketing Association Educator's Conference, 8 (pp. 225-227).
- Schenk, C. T., & Holman, R. H. (1980). A sociological approach to brand choice: the concept of situational self-image. In J. Olson (Ed.), Advances in Consumer Research, vol.7 (pp. 610-614). Ann Arbor, MI: Association for Consumer Research.
- Sirgy, M. J. (1979). Self-concept in consumer behavior. Unpublished doctoral dissertation, University of Massachusetts at Amherst, MA.
- Sirgy, M. J. (1980). Self-concept in relation to product preference and purchase intention. In V. V. Bellur (Ed.), Developments in Marketing Science, vol.3 (pp. 350-354). Marquette, MI: Academy of

Marketing Science.

- Sirgy, M. J. (1982). Self-concept in consumer behavior, a critical review. Journal of Consumer Research, 9, 287-300.
- Sirgy, M. J. (1984). Social cognition and consumer behavior. New York: Praeger Publishing.
- Sirgy, M. J. (1985). Self-image/product congruity and consumer decision-making. International Journal of Management, 2 (4), 49-62.
- Sirgy, M. J. (1985a). Using self-congruity and ideal congruity to product purchase motivation. Journal of Business Research, 13, 195-206.
- Sirgy, M. J., Johar, J. S., Samli, A. C., & Claiborne, C. (in press). Self-image congruence versus multiattribute attitude models: predictors of consumer behavior. Journal of the Academy of Marketing Sciences.
- Sirgy, M. J., & J. S. Johar (1985). Self-image congruence models versus multiattribute attitude models: when to use which positioning model. In R. F. Lusch, G. T. Ford, G. L. Frazier, R. D. Howell, C. A. Ingence, M. Reilly, & R. W. Stampfl (Eds.), 1985 AMA Educators' Proceedings (pp. 11-15). Chicago: American Marketing Association.
- Sirgy, M. J., & A. C. Samli (1986). A path analytic model of store loyalty involving self-concept, store image, socioeconomic status, and geographic loyalty. The Journal of the Academy of Science, 13, (summer), 265-291.
- Stein, K. M. (1987). Perceptions of Pennsylvania and New Jersey

employees regarding marketing and distributive education, with implications for the employment of high school and vocational school graduates (Doctoral dissertation, Temple University, 1987). Dissertation Abstracts International, 48, (4), 813A.

Stone, James R. III (1989). Marketing Education and a Career Choice in Marketing. Paper presented at the American Vocational Association Convention, Orlando, FL.

Tetlock, P.E., & Manstead, A. S. R. (1985). Impression management versus intrapsychic explanations in social psychology: a useful dichotomy. Psychological Review, 92, (1), 59-77.

U. S. Department of Labor (1988-89). Occupational Outlook Handbook, Bulletin 2300. Washington, D. C.: Bureau of Labor Statistics.

Veres, H. C. (1981). Sex equity: Factors associated with nontraditional vocational enrollments. ERIC Document Reproduction Service No. ED 200 776. Ithaca, New York: Cornell University.

Virginia, Department of Education (1988-1989). Fact finding, Marketing Education. Unpublished manuscript.

Vitz, P. C., & Johnston D. (1965). Masculinity of smokers and the masculinity of cigarette images. Journal of Applied Psychology, 49 (3), 155-159.

Wilkie, W. L., & E. A. Pessemier (1973). Issues in marketing's use of multiattribute models. Journal of Marketing Research, 10, 428-441.

APPENDICES

APPENDIX A

PERMISSION LETTER FOR FOCUS GROUP INTERVIEW

February 16, 1990

Superintendent

Dear Dr. _____

I would like to request your permission to conduct focus group interviews with several students at Blacksburg and Christiansburg high schools. This is a pilot study for my dissertation. The title of the study is: STUDENTS' PARTICIPATION IN THE MARKETING EDUCATION PROGRAM: THE RELATIVE EFFECTS OF TANGIBLE VERSUS SYMBOLIC FACTORS.

I would like to interview fourteen students at each high school (seven marketing education students and seven non-marketing education students at each school). I will be asking them questions regarding the marketing education program at their school, and they will be requested to complete (voluntarily) a one-page questionnaire. The total time of the interview will be no more than an hour. This study will hopefully help to improve marketing education programs.

The local Supervisor of Vocational Programs has been contacted and he is supportive of the above pilot study.

It would be greatly appreciated if you grant this request.

With best regards,

Maria Hatzios
Graduate Assistant

Betty Heath-Camp
Associate Professor/Advisor
Marketing Education

APPENDIX B
GENERALIZED ABSOLUTE DIFFERENCE MODEL

Generalized Absolute Difference Model

The Generalized Absolute Difference model will test the absolute (allows for inclusion of situational factors) rather than the relative differences between self-image and product image (or program image) (Martin and Bellizzi 1982). The questionnaire method will be used to obtain the ratings of product image and self-image. For the present study, the ideal social congruity of this model will be used. The full model is as follows:

$$\begin{aligned}\text{Self Congruity} &= \sum |PI - ASI| \\ \text{Social Congruity} &= \sum |PI - SSI| \\ \text{Ideal Congruity} &= \sum |PI - ISI| \\ \text{Ideal Social Congruity} &= \sum |PI - ISSI| \quad *\end{aligned}$$

* PI=product image along symbolic attribute (i)

ASI=actual self image along symbolic attribute (i)

SSI=social self-image along symbolic attribute (i)

ISI=ideal self-image along symbolic attribute (i)

ISSI=ideal social self-image along symbolic attribute (i)

APPENDIX C
QUESTIONNAIRE

QUESTIONNAIRE

SECTION I

How "important" or "unimportant" are the following characteristics or attributes of an educational program (such as, Marketing Education program, Science program, Art program) to you? Please circle the number which is closest to the degree of "importance" you would attach to that characteristic in your decision to select an educational program in high school.

1. The program should adequately train students for employment.
 very important 1 2 3 4 5 very unimportant
2. Graduates of the program should get jobs with good starting pay.
 very important 1 2 3 4 5 very unimportant
3. The teachers of the program should help students with job placement (find a job after graduation).
 very important 1 2 3 4 5 very unimportant
4. The program should provide useful and practical experience through on-the-job training.
 very important 1 2 3 4 5 very unimportant
5. The program should prepare students for college.
 very important 1 2 3 4 5 very unimportant
6. The program should involve a variety of learning experiences such as field trips, class role-play situations, films, competitive events, etc., rather than just lecture-discussion.
 very important 1 2 3 4 5 very unimportant
7. The program should offer the opportunity to students to earn credit for working part-time.
 very important 1 2 3 4 5 very unimportant
8. The program should teach students how to communicate effectively with people.
 very important 1 2 3 4 5 very unimportant
9. The program should teach students responsibility.
 very important 1 2 3 4 5 very unimportant
10. The program should prepare students to make good career choices.
 very important 1 2 3 4 5 very unimportant

SECTION II

Please circle the number that shows how likely it is that the Marketing Education (ME) program in your school has the characteristics described below.

1. The ME program adequately trains students for employment in marketing-related jobs.
 very likely 1 2 3 4 5 very unlikely
2. Graduates of the ME program get jobs with good starting pay.
 very likely 1 2 3 4 5 very unlikely
3. The ME teacher-coordinator(s) helps students with job placement (find a job after graduation).
 very likely 1 2 3 4 5 very unlikely
4. The ME program provides useful practical experience through on-the-job training.
 very likely 1 2 3 4 5 very unlikely
5. The ME program prepares students for college.
 very likely 1 2 3 4 5 very unlikely
6. The ME program involves a variety of learning experiences such as field trips, class role-play situations, films, competitive events, etc. rather than just lecture/discussion.
 very likely 1 2 3 4 5 very unlikely
7. The ME program offers the opportunity for students to earn credit, for working part time.
 very likely 1 2 3 4 5 very unlikely
8. The ME program teaches students how to communicate effectively with people.
 very likely 1 2 3 4 5 very unlikely
9. The ME program teaches students responsibility.
 very likely 1 2 3 4 5 very unlikely
10. The ME program prepares students to make good career choices.
 very likely 1 2 3 4 5 very unlikely

SECTION III

1. Circle the number for each item that best describes how you see the typical person enrolled in the Marketing Education (ME) program. I see the typical person enrolled in the ME program as:

modern	1	2	3	4	5	not modern
friendly	1	2	3	4	5	not friendly
confident	1	2	3	4	5	not confident
exciting	1	2	3	4	5	not exciting
professional	1	2	3	4	5	not professional
sophisticated	1	2	3	4	5	not sophisticated
wants to be rich	1	2	3	4	5	does not want to be rich
business-like	1	2	3	4	5	not business-like
sociable/outgoing	1	2	3	4	5	not sociable/outgoing

2. Circle the number for each item that best describes the way you want others to see you. I like those people who are close to me (friends, relatives, etc.) to see me as:

exciting	1	2	3	4	5	not exciting
business-like	1	2	3	4	5	not business-like
confident	1	2	3	4	5	not confident
modern	1	2	3	4	5	not modern
professional	1	2	3	4	5	not professional
sociable/outgoing	1	2	3	4	5	not sociable/outgoing
wants to be rich	1	2	3	4	5	does not want to be rich
friendly	1	2	3	4	5	not friendly
sophisticated	1	2	3	4	5	not sophisticated

SECTION IV

Based on what you know about the Marketing Education program in your school, please indicate the extent to which you agree or disagree with the following statements. Please circle the appropriate number.

1. Marketing Education is a good program.

Strongly						Strongly
Agree	1	2	3	4	5	Disagree

2. The Marketing Education program in my school is a better program than others (such as Science program, Art program) that are offered.

Strongly						Strongly
Agree	1	2	3	4	5	Disagree

3. Marketing education is the kind of program that benefits students like me.

Strongly Agree	1	2	3	4	5	Strongly Disagree
----------------	---	---	---	---	---	-------------------

4. I would consider enrolling (or re-enrolling) in a marketing education course.

Strongly Agree	1	2	3	4	5	Strongly Disagree
----------------	---	---	---	---	---	-------------------

SECTION V

In your own words, please tell us why you like or dislike the Marketing Education program in your school.

I like the ME program because: _____

I don't like the ME program because: _____

SECTION VI

1. What is your sex (circle one)?

a. Male
b. Female

2. What is your mother's education (circle one)?

a. Grade school e. College degree
b. Some high school f. Master's degree
c. High school g. Doctoral degree
d. Some college h. Other, specify

3. What is your father's education (circle one)?

a. Grade school e. College degree
b. Some high school f. Master's degree
c. High school g. Doctoral degree
d. Some college h. Other, specify

4. Father's occupation (please write): _____

5. Mother's occupation (please write): _____

6. Which of the following reflect your living arrangements (circle one)?
- a. Living with both parents
 - b. Living with mother only
 - c. Living with father only
 - d. Living with other relatives
 - e. Other living arrangements, describe _____
7. What is your total household income (approximately) (Circle one).
- a. Below \$20,000
 - b. \$20,000 to \$30,000
 - c. \$31,000 to \$40,000
 - d. \$41,000 to \$50,000
 - e. \$51,000 to 60,000
 - f. \$61,000 to \$70,000
 - g. \$71,000 to \$80,000
 - h. \$81,000 to 90,000
 - i. Over \$90,000
 - j. Don't know

APPENDIX D
FOCUS GROUP SURVEY FORMS

PILOT STUDY QUESTIONNAIRE NO.1
PRACTICAL CONSIDERATIONS

Please examine the practical considerations below that characterize the marketing education (marketing education) program at your high school.

PRACTICAL CONSIDERATIONS are defined as those elements used in decision making that are functional, utilitarian, or performance-oriented. For example, practical considerations of the Marketing Education program may include the level of difficulty of the class, the high or low level of intellectual challenge found in the class, salary one would get after graduating from the program, etc..

Please ADD in the blank spaces any new practical considerations that you feel are important to consider of the marketing education program in your high school.

- Employability (ex.: I would be able to get a good job after graduating from this program.)
- Salary (ex.: The program prepares the graduates for employment in a job with good salary).
- Placement (ex.: The program personnel helps students to find a job after graduation).
- Practical experience (ex.: The program provides useful practical experience through the on-the-job training component).
- College preparation (ex.: The program prepares the student for college).

--- -----

--- -----

--- -----

--- -----

--- -----

--- -----

--- -----

Now, RANK

Please RANK ALL PRACTICAL CONSIDERATIONS ABOVE (the given ones and your own) IN THE ORDER OF THE MOST IMPORTANT ONES TO THE LEAST IMPORTANT ONES that characterize the program. For example, number 1 will be assigned to the most important consideration, number 2 will be assigned to the second in importance, and so on.

PILOT STUDY QUESTIONNAIRE NO.2
SYMBOLIC CONSIDERATIONS

Please examine the symbolic considerations below that characterize the marketing education (marketing education) program at your high school.

SYMBOLIC CONSIDERATIONS are defined as those elements used in decision making that are value expressive, such as those that reflect or express one's self-concept. For example, symbolic considerations of the marketing education program may include the image that a student in the marketing education program reflects, such as being business-like, being an entrepreneur, being money-hungry, being sociable, being intelligent, being ambitious, being greedy, etc..

Please ADD in the blank spaces any new symbolic considerations that you feel are characteristic of the marketing education program in your high school.

- Modern (ex.: A person enrolled in the marketing education program has a modern/up-to-date view of the work place).
- Professional (ex.: A person enrolled in the marketing education program aspires to become a professional, business-like individual).
- Friendly (ex.: A person enrolled in the marketing education program is a friendly individual).
- Autonomous (ex.: A person enrolled in the marketing education program is independent and self-motivated).
- Self-esteem (ex.: A person enrolled in the marketing education program has high self esteem).
- Exciting (ex.: A person enrolled in the marketing education

--- -----

--- -----

--- -----

--- -----

--- -----

Now, RANK

Please RANK ALL SYMBOLIC CONSIDERATIONS ABOVE (the given ones and your own) IN THE ORDER OF THE MOST IMPORTANT ONES TO THE LEAST IMPORTANT ONES that characterize the program. For example, number 1 will be assigned to the most important consideration, number 2 to the second important consideration, and so on.

APPENDIX E
ANALYSIS OF FOCUS GROUP DATA

FOCUS GROUP
FREQUENCIES OF RANKING OF TANGIBLE ATTRIBUTES
(PRACTICAL CONSIDERATIONS)

Ranking	1	2	3	4	5	6	7	8
Employability	4	14	10	2	0	0	0	
Salary	5	0	4	5	12	4	0	
Placement	1	8	7	9	3	1	1	
College preparation	8	6	2	4	11	0	0	
Practical experience	12	3	6	9	1	0	0	

Attributes added

by students:

Learning the economic system				1				
Personal benefits					1			
Better communication					1			
Understand the business world	1					1		
Makes you more prepared					1			
More responsible			1			1		
Know more in field						1		
Making more money							1	
Ties with companies after graduation			1					
Benefits								1

FOCUS GROUP
FREQUENCIES OF RANKING OF SYMBOLIC ATTRIBUTES
(SYMBOLIC CONSIDERATIONS)

<u>Ranking</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Modern	4	4	5	6	6	4	1	0	0
Professional	10	5	6	4	4	2	1	0	0
Friendly	2	5	4	7	5	7	0	0	0
Autonomous	8	5	4	6	3	3	0	0	0
Self-esteem	3	7	6	6	1	6	0	0	1
Exciting	0	2	4	3	11	8	1	1	0

Attributes added

by students:

More confidence in self								1	
Responsibility	1								
Get know-how		1							
Better consumer							1		
Experience w/community	1								
Freedom/independence			1						
Money hungry	1	1							
Sociable			1						
Understanding people	1								

APPENDIX F

PERMISSION LETTER TO THE SUPERINTENDENTS

March, 1990

Superintendent

Dear Dr. _____

We are conducting a research project concerning student perceptions of the marketing education program in Virginia. _____ High school has been selected as one of 15 schools in the state for participation in the study. We would like your permission for the marketing education teacher to participate.

The study will involve the teacher handing out and collecting 36 student survey instruments. It will take no more than an hour of the teacher's time (half an hour for the marketing students and half an hour for the non-marketing students), and no more than 20 minutes for each student to complete. We will mail the survey, a set of instructions, and a prepaid return mailer in April, 1990. All students will be asked to participate voluntarily. All information will be treated confidentially.

We have spoken with Mr./Ms. _____, the marketing education teacher involved, and he/she has agreed to participate if your permission is granted. A copy of the study's abstract and the instrument are enclosed.

Please forward your response in the enclosed self-addressed envelope.

Your support will be greatly appreciated in this research endeavor.

With best regards,

Maria Hatzios
Graduate Assistant

Betty Heath-Camp
Associate Professor/Advisor
Marketing Education

APPENDIX G

LETTER TO THE MARKETING EDUCATION TEACHERS

April, 1990

Mr./Ms. _____
Marketing Education Coordinator

Dear Mr./Ms. _____

We would like to thank you for agreeing to participate in our research project. The purpose of the study is to find out which attributes of the marketing education program, the tangible or the symbolic, influence students to participate in marketing. We believe that by including the non-marketing students in the study, we will gain greater knowledge of how the marketing education program is perceived by all students in general.

The findings will help us to develop effective promotional strategies for the program, and redesign aspects of the program, in order to attract more students and the right kind of students (with the right aptitude and interest).

Your involvement will be to hand out and collect 36 student survey instruments (questionnaires). Half of these are to be handed out to eighteen marketing students and the other half to eighteen non-marketing students in study halls. It will take no more than twenty minutes for each student to complete the questionnaire. Please find attached the instructions for conducting the survey. Also, all data will be treated confidentially.

Please find enclosed a copy of the permission granted from the superintendent's office to conduct this research at your school.

We are very grateful for your assistance and cooperation!!!

Sincerely,

Maria Hatzios
Graduate Assistant

Betty Heath-Camp
Associate Professor/Advisor
Marketing Education

APPENDIX H
SURVEY INSTRUCTIONS TO THE MARKETING
EDUCATION TEACHERS

INSTRUCTIONS FOR THE SURVEY

The survey should be completed only by students of the 9th, 10th, 11th, and 12th grades. All students should be asked to complete the survey voluntarily.

Selecting marketing students

Please select a marketing class that has mixed grade students. Eighteen students should take the survey. If the class is larger than eighteen students, give the questionnaires to eighteen individuals, selecting them randomly: choose every second student going through the rows, and start all over again with the remaining students, until you have selected eighteen students. If there is not one marketing class with mixed grade students, then please choose two marketing classes (even three if necessary), and give nine questionnaires to each class (or six to each class if you need to use three classes). Again, use the random selection procedure outlined above.

If some students have already taken the survey in the study hall, they should not take it again.

Selecting non marketing students

Please choose a study hall period that has mixed grade students. Please find out if there are any marketing students in the study hall. They should not take the survey (they have already taken it in the marketing class).

Give questionnaires to eighteen students, choosing them randomly (as outlined above (e.g., choose every second student going through the rows, and start the same process with the remaining students until you have selected eighteen students)).

If the study hall you have chosen has less than eighteen students, please choose a second study hall and select the remaining students you need for the survey by selecting again the students randomly, as mentioned above.

PLEASE GIVE THESE INSTRUCTIONS TO STUDENTS TAKING THE SURVEY (BOTH MARKETING AND NON MARKETING STUDENTS).

Students should check to see if their questionnaire has five pages of text.

Please emphasize that students should complete all items in the questionnaire (please check to see if they did). If they do not know about the subject, they should answer based on what they have heard or based on how they perceive things to be in that area.

PLEASE COLLECT ALL QUESTIONNAIRES AFTER COMPLETION. RUBBER BAND AND LABEL QUESTIONNAIRES FOR MARKETING AND NON MARKETING STUDENTS SEPARATELY, PLACE IN SELF-ADDRESSED ENVELOPE, AND MAIL.

THANK YOU VERY, VERY MUCH!!!!!!!

APPENDIX I

FOR MARKETING STUDENTS:

MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL AND
SELF-IMAGE CONGRUITIES

PEARSON CORRELATION COEFFICIENTS AMONG
FUNCTIONAL CONGRUITIES AND ATTITUDE

PEARSON CORRELATION COEFFICIENTS AMONG
SELF-IMAGE CONGRUITIES AND ATTITUDE

Table 9

Means and standard deviations for FCs, SCs, FCT, SCT, and attitude, for marketing students

VARIABLE	CASES	MEAN	STD DEV
AT1	254	1.5157	.7988
AT2	253	1.9328	1.0762
AT3	253	1.7036	.9014
AT4	251	1.6693	1.0189
ATT	250	1.6910	.7507
FC1	253	3.0000	2.6756
FC2	253	5.3340	3.8444
FC3	252	6.5198	5.2685
FC4	252	3.3690	3.2717
FC5	253	6.8893	5.0525
FC6	253	4.2332	4.3540
FC7	251	2.6892	3.0198
FC8	252	2.8611	2.7135
FC9	253	2.9209	3.1938
FC10	253	3.2569	3.4158
FCT	248	4.0919	2.4052
SC1	248	.6089	.7058
SC2	250	.6880	.7957
SC3	248	.6935	.7601
SC4	249	.9197	.9167
SC5	250	.8880	.9289
SC6	248	.9032	.8576
SC7	250	.7120	.8764
SC8	251	.7888	.8528
SC9	251	.7012	.8064
SCT	238	.7712	.4770

Table 10

Correlation coefficients among FCs, SCs, FCT, SCT, and Attitude,
for marketing students

PEARSON CORRELATION COEFFICIENTS												
	AT1	AT2	AT3	AT4	AT5	AT6	FC1	FC2	FC3	FC4	FC5	FC6
AT1	1.0000 (.251) p = .000	.8775 (.753) p = .000	.6331 (.753) p = .000	.5059 (.781) p = .000	.7669 (.750) p = .000	.4105 (.783) p = .000	.2164 (.753) p = .000	.1195 (.781) p = .000	.4167 (.752) p = .000	.1039 (.753) p = .000	.1515 (.753) p = .000	
AT2		1.0000 (.253) p = .000	.5816 (.782) p = .000	.4782 (.750) p = .000	.8229 (.750) p = .000	.3309 (.752) p = .000	.2115 (.752) p = .000	.1907 (.751) p = .000	.3571 (.751) p = .000	.0939 (.752) p = .000	.2217 (.752) p = .000	
AT3			1.0000 (.253) p = .000	.5871 (.751) p = .000	.8394 (.750) p = .000	.4335 (.752) p = .000	.3132 (.752) p = .000	.1037 (.751) p = .000	.4023 (.751) p = .000	.1454 (.752) p = .000	.2411 (.752) p = .000	
AT4				1.0000 (.251) p = .000	.7896 (.750) p = .000	.3095 (.750) p = .000	.1584 (.750) p = .000	.1201 (.741) p = .000	.3109 (.747) p = .000	.1151 (.750) p = .000	.1805 (.750) p = .000	
AT5					1.0000 (.250) p = .000	.4765 (.749) p = .000	.2703 (.749) p = .000	.1909 (.741) p = .000	.4189 (.748) p = .000	.1591 (.737) p = .000	.2273 (.749) p = .000	
FC1						1.0000 (.253) p = .000	.4504 (.753) p = .000	.3193 (.751) p = .000	.6011 (.752) p = .000	.2827 (.753) p = .000	.3045 (.753) p = .000	
FC2							1.0000 (.253) p = .000	.3807 (.752) p = .000	.8899 (.752) p = .000	.2377 (.753) p = .000	.2007 (.753) p = .000	
FC3								1.0000 (.252) p = .000	.8890 (.751) p = .000	.9064 (.752) p = .000	.2639 (.752) p = .000	
FC4									1.0000 (.252) p = .000	.1069 (.752) p = .000	.3521 (.752) p = .000	
FC5										1.0000 (.251) p = .000	.2117 (.751) p = .000	
FC6											1.0000 (.251) p = .000	

(Table 10 continued)

PEARSON CORRELATION COEFFICIENTS											
	AT1	AT2	AT3	AT4	AT5	AT6	FC1	FC2	FC3	FC4	FC5
FC7	.3103 f-.000	.2151 f-.000	.3009 f-.000	.2209 f-.000	.3095 f-.000	.3195 f-.000	.3111 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
FC8	.3021 f-.000	.2017 f-.000	.2494 f-.000	.2499 f-.000	.3079 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
FC9	.3513 f-.000	.2532 f-.000	.3151 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
FC10	.3257 f-.000	.2069 f-.000	.3054 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
FC1	.3005 f-.000	.3279 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
SC1	.3274 f-.000	.3005 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
SC2	.3154 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
SC3	.3279 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
SC4	.3279 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
SC5	.3279 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
SC6	.3279 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
SC7	.3279 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
SC8	.3279 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
SC9	.3279 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000
SC1	.3279 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000	.3195 f-.000

(COEFFICIENT / (CASES) / 1-TAILED SIG)

" " IS PRINTED IF A COEFFICIENT CARRY RE COMPIRED

(Table 10 continued)

----- PEARSON CORRELATION COEFFICIENTS -----												
	FC7	FC8	FC9	FC10	FC1	SC1	SC2	SC3	SC4	SC5	SC6	
AT1	.3103 (.251) P=.000	.3021 (.251) P=.000	.3648 (.251) P=.000	.3257 (.251) P=.000	.3009 (.240) P=.000	.1776 (.241) P=.003	.1354 (.250) P=.016	.1379 (.240) P=.015	.0201 (.249) P=.374	.1551 (.250) P=.007	.0192 (.247) P=.302	
AT2	.3151 (.250) P=.000	.3017 (.251) P=.002	.3632 (.252) P=.000	.3009 (.252) P=.001	.3279 (.247) P=.000	.0039 (.243) P=.089	.1057 (.249) P=.024	.0509 (.247) P=.214	.1091 (.240) P=.043	.1801 (.247) P=.001	.1161 (.247) P=.014	
AT3	.3009 (.250) P=.000	.2496 (.251) P=.000	.3451 (.252) P=.000	.3036 (.252) P=.000	.3139 (.247) P=.000	.1002 (.247) P=.002	.1017 (.249) P=.002	.1312 (.247) P=.079	.1007 (.240) P=.052	.1319 (.247) P=.014	.0373 (.247) P=.244	
AT4	.3220 (.240) P=.000	.2409 (.247) P=.000	.3201 (.250) P=.000	.3564 (.250) P=.000	.3179 (.245) P=.000	.0502 (.243) P=.191	.1402 (.247) P=.000	.0401 (.243) P=.227	.0039 (.246) P=.075	.0192 (.247) P=.112	.0569 (.245) P=.191	
AT7	.3093 (.247) P=.000	.3079 (.240) P=.000	.3902 (.249) P=.000	.3512 (.247) P=.000	.4424 (.241) P=.000	.0711 (.241) P=.070	.1729 (.246) P=.003	.0073 (.243) P=.087	.0674 (.245) P=.142	.1201 (.246) P=.022	.0219 (.241) P=.327	
FC1	.5260 (.251) P=.000	.6159 (.252) P=.000	.6111 (.253) P=.000	.5104 (.253) P=.000	.7629 (.240) P=.000	.0324 (.240) P=.304	.0029 (.250) P=.401	.0669 (.240) P=.146	.0373 (.249) P=.274	.1522 (.250) P=.000	.0032 (.240) P=.400	
FC2	.4311 (.251) P=.000	.3702 (.252) P=.000	.3441 (.253) P=.000	.3050 (.253) P=.000	.6364 (.240) P=.000	.1079 (.240) P=.044	.1279 (.250) P=.022	.0633 (.240) P=.140	.0964 (.247) P=.044	.1369 (.250) P=.014	.0609 (.240) P=.172	
FC3	.3198	.2000	.1694	.2506	.5957	.0951	-.0070	.0082	-.0055	.0472	-.0469	
FC4	.2807 (.250) P=.000	.2911 (.251) P=.000	.2527 (.252) P=.004	.2927 (.250) P=.000	.2403 (.240) P=.000	.2477 (.246) P=.004	.2497 (.245) P=.456	.2477 (.240) P=.449	.2407 (.240) P=.422	.2497 (.249) P=.294	.2477 (.240) P=.297	
FC5	.4093 (.250) P=.000	.5630 (.251) P=.000	.6779 (.252) P=.000	.4059 (.252) P=.000	.6671 (.240) P=.000	.0339 (.247) P=.299	.0189 (.249) P=.470	.1212 (.247) P=.024	.2195 (.240) P=.000	.1439 (.249) P=.012	.0193 (.247) P=.220	
FC6	.1042 (.251) P=.002	.2597 (.252) P=.000	.2109 (.253) P=.000	.2679 (.253) P=.000	.5614 (.240) P=.000	.1554 (.240) P=.007	.0349 (.250) P=.292	.0469 (.240) P=.233	.0361 (.240) P=.245	.0123 (.250) P=.251	.0641 (.240) P=.152	
FC6	.3608 (.251) P=.000	.3379 (.252) P=.000	.4474 (.253) P=.000	.2015 (.253) P=.000	.6079 (.240) P=.000	.0712 (.240) P=.132	.0792 (.250) P=.106	.1009 (.240) P=.044	.0773 (.240) P=.112	.2314 (.250) P=.000	.0199 (.240) P=.374	

(Table 10 continued)

PEARSON CORRELATION COEFFICIENTS											
	FC7	FC8	FC9	FC10	FC1	SC2	SC3	SC4	SC5	SC6	
FC7	1.0000 (.251) P=.000	.5529 (.251) P=.000	.5510 (.251) P=.000	.5331 (.251) P=.000	.7074 (.248) P=.000	.0169 (.408) P=.232	.0721 (.246) P=.064	.1107 (.247) P=.031	.2107 (.246) P=.000	-.0044 (.246) P=.472	
FC8	.5529 (.250) P=.000	1.0000 (.252) P=.000	.7163 (.252) P=.000	.5049 (.248) P=.000	.7307 (.248) P=.000	.1254 (.242) P=.024	.1037 (.242) P=.052	.1125 (.246) P=.019	.1102 (.247) P=.041	-.0337 (.247) P=.211	
FC9	.5510 (.251) P=.000	.7163 (.252) P=.000	1.0000 (.253) P=.000	.5304 (.253) P=.000	.7272 (.248) P=.000	-.0214 (.408) P=.250	.1094 (.248) P=.043	.1251 (.249) P=.024	.1057 (.250) P=.047	.0313 (.249) P=.212	
FC10	.5331 (.251) P=.000	.5049 (.252) P=.000	.5304 (.253) P=.000	1.0000 (.253) P=.000	.6810 (.248) P=.000	.0764 (.260) P=.064	.1311 (.248) P=.009	.1354 (.249) P=.012	.1263 (.250) P=.024	.0047 (.248) P=.472	
FC1	.7074 (.248) P=.000	.7307 (.248) P=.000	.7272 (.248) P=.000	.6810 (.248) P=.000	1.0000 (.248) P=.000	.0609 (.247) P=.171	.1062 (.243) P=.014	.1151 (.244) P=.032	.1627 (.245) P=.002	.0021 (.243) P=.472	
SC1	.0708 (.244) P=.134	.0513 (.242) P=.202	.0423 (.248) P=.253	.0739 (.248) P=.123	.1341 (.248) P=.018	.0534 (.247) P=.000	.1469 (.247) P=.004	.1053 (.246) P=.002	.1142 (.247) P=.017	.1710 (.245) P=.004	
SC2	.0169 (.248) P=.232	.1254 (.242) P=.024	.1037 (.242) P=.052	.1037 (.242) P=.052	.1037 (.242) P=.052	1.0000 (.250) P=.000	.3001 (.247) P=.000	.2719 (.248) P=.000	.2037 (.249) P=.000	.2023 (.247) P=.000	
SC3	.0721 (.246) P=.064	.1037 (.242) P=.052	.1094 (.248) P=.043	.1311 (.248) P=.009	.1354 (.249) P=.012	.1062 (.243) P=.014	1.0000 (.246) P=.000	.3513 (.246) P=.000	.3067 (.247) P=.000	.2431 (.246) P=.000	
SC4	.2107 (.247) P=.031	.1102 (.249) P=.041	.1057 (.250) P=.047	.1254 (.242) P=.024	.1037 (.242) P=.052	.1254 (.242) P=.024	.1037 (.242) P=.052	1.0000 (.249) P=.000	.3077 (.246) P=.000	.4100 (.247) P=.000	
SC5	.2107 (.248) P=.000	.1102 (.249) P=.041	.1057 (.250) P=.047	.1254 (.242) P=.024	.1037 (.242) P=.052	.1254 (.242) P=.024	.1037 (.242) P=.052	.1037 (.242) P=.052	1.0000 (.246) P=.000	.3733 (.247) P=.000	
SC6	-.0044 (.246) P=.473	-.0337 (.247) P=.211	.0313 (.249) P=.212	.0047 (.248) P=.472	.0047 (.248) P=.472	.0609 (.247) P=.171	.1062 (.243) P=.014	.1151 (.244) P=.032	.1627 (.245) P=.002	.3733 (.247) P=.000	

Table 10 (continued)

	PC7	PC8	PC9	PC10	PC1	PC2	PC3	PC4	SC9	SC4
SC7	.1441 1-.7401	.1339 1-.8661	.1339 1-.8661	.1339 1-.8661	.1337 1-.8663	.1337 1-.8663	.1337 1-.8663	.1337 1-.8663	.1337 1-.8663	.1337 1-.8663
SC8	.1120 1-.8880	.1110 1-.8890	.1110 1-.8890	.1110 1-.8890	.1100 1-.8900	.1100 1-.8900	.1100 1-.8900	.1100 1-.8900	.1100 1-.8900	.1100 1-.8900
SC9	.1077 1-.8923	.1077 1-.8923	.1077 1-.8923	.1077 1-.8923	.1067 1-.8933	.1067 1-.8933	.1067 1-.8933	.1067 1-.8933	.1067 1-.8933	.1067 1-.8933
SC1	.1151 1-.8849	.1151 1-.8849	.1151 1-.8849	.1151 1-.8849	.1141 1-.8859	.1141 1-.8859	.1141 1-.8859	.1141 1-.8859	.1141 1-.8859	.1141 1-.8859
Interactions / (cases) / 3 (d.f.)										
	SC7	SC8	SC9	SC1	SC2	SC3	SC4	SC5	SC6	SC7
A11	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259
A12	.0871 1-.9129	.0871 1-.9129	.0871 1-.9129	.0871 1-.9129	.0871 1-.9129	.0871 1-.9129	.0871 1-.9129	.0871 1-.9129	.0871 1-.9129	.0871 1-.9129
A13	.1049 1-.8951	.1049 1-.8951	.1049 1-.8951	.1049 1-.8951	.1049 1-.8951	.1049 1-.8951	.1049 1-.8951	.1049 1-.8951	.1049 1-.8951	.1049 1-.8951
A14	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891
A15	.1271 1-.8729	.1271 1-.8729	.1271 1-.8729	.1271 1-.8729	.1271 1-.8729	.1271 1-.8729	.1271 1-.8729	.1271 1-.8729	.1271 1-.8729	.1271 1-.8729
PC1	.1009 1-.8991	.1009 1-.8991	.1009 1-.8991	.1009 1-.8991	.1009 1-.8991	.1009 1-.8991	.1009 1-.8991	.1009 1-.8991	.1009 1-.8991	.1009 1-.8991
PC2	.1311 1-.8689	.1311 1-.8689	.1311 1-.8689	.1311 1-.8689	.1311 1-.8689	.1311 1-.8689	.1311 1-.8689	.1311 1-.8689	.1311 1-.8689	.1311 1-.8689
PC3	.1179 1-.8821	.1179 1-.8821	.1179 1-.8821	.1179 1-.8821	.1179 1-.8821	.1179 1-.8821	.1179 1-.8821	.1179 1-.8821	.1179 1-.8821	.1179 1-.8821
PC4	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891	.1109 1-.8891
PC5	.0959 1-.9041	.0959 1-.9041	.0959 1-.9041	.0959 1-.9041	.0959 1-.9041	.0959 1-.9041	.0959 1-.9041	.0959 1-.9041	.0959 1-.9041	.0959 1-.9041
PC6	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259	.0741 1-.9259

Interactions / (cases) / 3 (d.f.)

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

SC8

SC9

SC1

SC2

SC3

SC4

SC5

SC6

SC7

(Table 10 continued)

PEARSON CORRELATION COEFFICIENTS			
	SC7	SC8	SC9
SC7	.1461 P=.000	.3120 P=.000	.2077 P=.000
SC8	.1101 P=.000	.0339 P=.000	.0415 P=.000
SC9	.1325 P=.000	.1010 P=.000	.2270 P=.000
SC10	.1339 P=.000	.1190 P=.000	.0861 P=.000
SC11	.1753 P=.000	.0925 P=.000	.1870 P=.000
SC12	.2022 P=.000	.1334 P=.000	.0907 P=.000
SC13	.1557 P=.000	.1400 P=.000	.2265 P=.000
SC14	.1010 P=.000	.2215 P=.000	.1213 P=.000
SC15	.0173 P=.000	.1101 P=.000	.2211 P=.000
SC16	.1413 P=.000	.1705 P=.000	.2127 P=.000
SC17	.0199 P=.000	.4254 P=.000	.1217 P=.000
SC18	.0225 P=.000	.1017 P=.000	.2511 P=.000
SC19	.1204 P=.000	.2777 P=.000	.1000 P=.000
SC20	.1277 P=.000	.1250 P=.000	.2511 P=.000
SC21	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC22	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC23	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC24	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC25	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC26	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC27	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC28	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC29	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC30	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC31	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC32	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC33	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC34	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC35	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC36	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC37	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC38	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC39	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC40	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC41	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC42	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC43	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC44	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC45	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC46	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC47	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC48	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC49	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC50	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC51	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC52	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC53	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC54	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC55	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC56	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC57	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC58	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC59	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC60	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC61	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC62	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC63	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC64	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC65	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC66	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC67	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC68	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC69	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC70	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC71	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC72	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC73	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC74	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC75	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC76	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC77	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC78	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC79	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC80	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC81	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC82	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC83	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC84	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC85	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC86	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC87	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC88	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC89	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC90	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC91	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC92	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC93	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC94	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC95	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC96	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC97	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC98	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC99	.1419 P=.000	.2714 P=.000	.1000 P=.000
SC100	.1419 P=.000	.2714 P=.000	.1000 P=.000

" " IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED

(COEFFICIENT / (CASES) / 1-TAILED SIG)

APPENDIX J

FOR NON-MARKETING STUDENTS:

MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL AND
SELF-IMAGE CONGRUITIES

PEARSON CORRELATION COEFFICIENTS AMONG
FUNCTIONAL CONGRUITIES AND ATTITUDE

PEARSON CORRELATION COEFFICIENTS AMONG
SELF-IMAGE CONGRUITIES AND ATTITUDE

Table 11

Means and standard deviations for FCs, SCs, FCT, SCT, and attitude, for non-marketing students

VARIABLE	CASES	MEAN	STD DEV
AT1	248	1.9919	.9691
AT2	247	2.7166	1.1794
AT3	247	2.6154	1.2338
AT4	247	2.8097	1.3586
ATT	246	2.5346	.9582
FC1	249	4.0723	4.1097
FC2	249	5.5341	4.3700
FC3	249	5.8353	4.9896
FC4	248	4.4758	4.3341
FC5	249	5.9478	5.4648
FC6	249	5.1606	4.5780
FC7	247	4.7652	4.8516
FC8	249	4.3735	4.4786
FC9	248	4.4556	4.9555
FC10	249	4.0723	4.3071
FCT	245	4.9804	3.3765
SC1	242	.7810	.8234
SC2	242	.8884	.9379
SC3	242	.8347	.8911
SC4	242	1.2851	1.1070
SC5	242	1.0537	1.0232
SC6	243	1.1811	1.1023
SC7	243	.8930	1.0350
SC8	240	.8917	.9175
SC9	242	1.0372	1.0117
SCT	235	.9778	.6224

(Table 12 continued)

PEARSON CORRELATION COEFFICIENTS												
	AT1	AT2	AT3	AT4	AT7	FC1	FC2	FC3	FC4	FC5	FC6	FC7
FC7	.2019 (.246) p=.000	.2236 (.245) p=.000	.2443 (.245) p=.000	.2014 (.245) p=.000	.3207 (.241) p=.000	.3163 (.247) p=.000	.5283 (.247) p=.000	.5015 (.247) p=.000	.4235 (.246) p=.000	.2537 (.247) p=.000	.2537 (.247) p=.000	.4137 (.247) p=.000
FC8	.2370 (.246) p=.000	.1083 (.247) p=.045	.1934 (.247) p=.001	.2615 (.247) p=.000	.2537 (.246) p=.000	.2723 (.247) p=.000	.4275 (.247) p=.000	.4075 (.247) p=.000	.5039 (.246) p=.000	.3594 (.247) p=.000	.3594 (.247) p=.000	.2537 (.247) p=.000
FC9	.2094 (.247) p=.000	.1279 (.246) p=.023	.2200 (.246) p=.000	.2105 (.246) p=.000	.2701 (.245) p=.000	.3101 (.246) p=.000	.3473 (.246) p=.000	.4603 (.246) p=.000	.5011 (.247) p=.000	.3631 (.247) p=.000	.3631 (.247) p=.000	.4557 (.246) p=.000
FC10	.2047 (.247) p=.000	.2053 (.247) p=.001	.2320 (.247) p=.000	.2051 (.247) p=.000	.3295 (.246) p=.000	.3227 (.247) p=.000	.4772 (.247) p=.000	.4709 (.247) p=.000	.6205 (.247) p=.000	.4344 (.247) p=.000	.4344 (.247) p=.000	.4569 (.247) p=.000
FC1	.4179 (.241) p=.000	.2504 (.243) p=.000	.3222 (.243) p=.000	.3577 (.243) p=.000	.4104 (.242) p=.000	.7050 (.245) p=.000	.6014 (.245) p=.000	.6969 (.245) p=.000	.7613 (.245) p=.000	.5595 (.245) p=.000	.5595 (.245) p=.000	.6703 (.245) p=.000
SC1	.3794 (.241) p=.003	.1037 (.240) p=.002	.2719 (.240) p=.000	.1095 (.240) p=.002	.2895 (.239) p=.000	.0009 (.242) p=.442	.1343 (.242) p=.010	.1192 (.242) p=.012	.0271 (.241) p=.310	.0022 (.241) p=.447	.0022 (.241) p=.447	.0702 (.242) p=.130
SC2	.2293 (.241) p=.000	.2527 (.240) p=.000	.2459 (.240) p=.000	.2347 (.240) p=.000	.2370 (.240) p=.000	.0471 (.242) p=.233	.0153 (.242) p=.407	.0199 (.242) p=.302	.0111 (.241) p=.247	.0744 (.241) p=.144	.0744 (.241) p=.144	.0125 (.242) p=.254
SC3	.2059 (.241) p=.001	.1400 (.240) p=.011	.2170 (.240) p=.000	.2711 (.240) p=.000	.2660 (.239) p=.000	.1345 (.242) p=.017	.1320 (.242) p=.009	.2465 (.242) p=.000	.0097 (.241) p=.002	.0502 (.241) p=.071	.0502 (.241) p=.071	.1010 (.242) p=.004
SC4	.2720 (.241) p=.000	.2700 (.240) p=.000	.2100 (.240) p=.000	.2516 (.240) p=.000	.3125 (.239) p=.000	.0639 (.242) p=.142	.1364 (.242) p=.010	.1137 (.242) p=.019	.0295 (.241) p=.375	.0617 (.241) p=.170	.0617 (.241) p=.170	.0243 (.242) p=.254
SC5	.0056 (.241) p=.103	.0712 (.240) p=.132	.1439 (.240) p=.013	.1446 (.240) p=.013	.1354 (.239) p=.010	.0504 (.242) p=.103	.0119 (.242) p=.259	.0973 (.242) p=.002	.1307 (.241) p=.017	.0117 (.241) p=.317	.0117 (.241) p=.317	.0047 (.242) p=.471
SC6	.0625 (.242) p=.166	.0007 (.241) p=.106	.2264 (.241) p=.000	.1015 (.241) p=.050	.1509 (.240) p=.010	.0064 (.243) p=.070	.0123 (.243) p=.394	.0069 (.242) p=.457	.0119 (.242) p=.133	.0207 (.241) p=.371	.0207 (.241) p=.371	.1164 (.242) p=.002

(Table 12 continued)

	AT1	AT2	AT3	AT4	ATT	FC1	FC2	FC3	FC4	FC5	FC6	FC7
SC7	.1859 (.242) p=.000	.1649 (.241) p=.005	.1927 (.241) p=.001	.1497 (.241) p=.010	.2066 (.240) p=.000	-.0214 (.243) p=.370	.0081 (.243) p=.440	.0509 (.243) p=.215	-.0117 (.243) p=.254	.0631 (.243) p=.100	.0197 (.243) p=.744	
SC8	-.0460 (.237) p=.256	.1109 (.238) p=.044	.0845 (.238) p=.097	.0746 (.238) p=.120	.0755 (.237) p=.123	-.0307 (.240) p=.275	.0227 (.240) p=.363	.0211 (.237) p=.315	-.0601 (.240) p=.177	.0517 (.240) p=.212	.0101 (.240) p=.744	
SC9	.0761 (.241) p=.120	.1233 (.240) p=.020	.2085 (.240) p=.001	.1075 (.240) p=.002	.1902 (.237) p=.002	.0010 (.242) p=.444	.0333 (.242) p=.304	.1155 (.242) p=.034	-.0102 (.242) p=.204	.0166 (.242) p=.314	.0323 (.242) p=.304	
SC7	.1794 (.234) p=.001	.2544 (.233) p=.000	.3167 (.233) p=.000	.0802 (.233) p=.000	.3301 (.233) p=.000	-.0207 (.235) p=.378	.0021 (.235) p=.105	.1152 (.235) p=.034	-.0722 (.235) p=.134	.0357 (.235) p=.292	.0374 (.235) p=.204	
P E A R S O N C O R R E L A T I O N C O E F F I C I E N T S												
AT1	.2849 (.246) p=.000	.2579 (.246) p=.000	.2894 (.247) p=.000	.2667 (.246) p=.000	.4179 (.244) p=.000	.1294 (.241) p=.003	.2835 (.241) p=.000	.2057 (.241) p=.001	.2709 (.241) p=.000	.0634 (.241) p=.114	.0423 (.241) p=.164	
AT2	.2236 (.245) p=.000	.1893 (.247) p=.045	.1279 (.246) p=.023	.2953 (.247) p=.001	.2504 (.243) p=.000	.1839 (.240) p=.002	.2529 (.240) p=.000	.1409 (.240) p=.011	.2707 (.240) p=.000	.0712 (.240) p=.114	.0807 (.241) p=.104	
AT3	.2645 (.245) p=.000	.1734 (.247) p=.001	.2200 (.246) p=.000	.2329 (.246) p=.000	.3322 (.243) p=.000	.2219 (.240) p=.000	.2459 (.240) p=.000	.2270 (.240) p=.000	.2109 (.240) p=.000	.1439 (.240) p=.011	.2261 (.241) p=.000	
AT4	.2014 (.245) p=.000	.2615 (.247) p=.000	.2305 (.246) p=.000	.3053 (.247) p=.000	.3877 (.243) p=.000	.1095 (.240) p=.002	.2347 (.240) p=.000	.2211 (.240) p=.000	.2516 (.240) p=.000	.1446 (.240) p=.011	.1015 (.241) p=.000	
ATT	.3207 (.244) p=.000	.2537 (.246) p=.000	.2701 (.245) p=.000	.3395 (.246) p=.000	.4104 (.242) p=.000	.2595 (.239) p=.000	.2970 (.239) p=.000	.2660 (.239) p=.000	.3125 (.237) p=.000	.1356 (.237) p=.010	.1509 (.240) p=.010	
FC1	.2363 (.247) p=.000	.2723 (.249) p=.000	.2303 (.248) p=.000	.2927 (.249) p=.000	.4037 (.245) p=.000	.0087 (.242) p=.444	.0471 (.242) p=.233	.1365 (.242) p=.017	.0639 (.242) p=.162	.0504 (.242) p=.010	.0069 (.243) p=.010	
FC2	.2805 (.247) p=.000	.4375 (.249) p=.000	.3675 (.248) p=.000	.4722 (.249) p=.000	.6016 (.245) p=.000	.1343 (.243) p=.010	.0153 (.240) p=.407	.1520 (.242) p=.004	.1124 (.242) p=.010	.0419 (.242) p=.254	.0173 (.243) p=.304	
FC3	.2815 (.247) p=.000	.4095 (.249) p=.000	.4603 (.248) p=.000	.4700 (.249) p=.000	.5960 (.245) p=.000	.1192 (.242) p=.032	.0194 (.242) p=.362	.2466 (.242) p=.000	.1137 (.242) p=.039	.0973 (.242) p=.086	.0069 (.243) p=.457	
FC4	.4315 (.241) p=.000	.5030 (.248) p=.000	.5041 (.247) p=.000	.4308 (.248) p=.000	.7413 (.245) p=.000	.0271 (.241) p=.336	.0014 (.241) p=.261	.0807 (.241) p=.082	.0295 (.241) p=.329	.1207 (.241) p=.031	.0719 (.242) p=.133	
FC5	.2550 (.247) p=.000	.3596 (.249) p=.000	.3431 (.248) p=.000	.4349 (.249) p=.000	.5595 (.245) p=.000	.0022 (.242) p=.487	.0746 (.242) p=.124	.0542 (.242) p=.201	.0617 (.242) p=.170	.0317 (.242) p=.312	.0209 (.243) p=.373	
FC6	.4337 (.247) p=.000	.4539 (.249) p=.000	.4559 (.248) p=.000	.4569 (.249) p=.000	.6703 (.245) p=.000	.0702 (.242) p=.136	.0425 (.242) p=.255	.1010 (.242) p=.059	.0243 (.242) p=.354	.0047 (.242) p=.471	.1164 (.243) p=.035	

(Table 12 continued)

----- PEARSON CORRELATION COEFFICIENTS -----											
	FC7	FC8	FC9	FC10	FC1	SC1	SC2	SC3	SC4	SC5	SC6
FC7	1.0000 (.247) P=.000	.5435 (.241) P=.000	.5260 (.241) P=.000	.5045 (.241) P=.000	.7472 (.245) P=.000	.0460 (.240) P=.151	.0237 (.240) P=.357	.1278 (.240) P=.007	.0932 (.240) P=.075	.0313 (.240) P=.315	.0291 (.241) P=.275
FC8	.5435 (.247) P=.000	1.0000 (.249) P=.000	.6887 (.248) P=.000	.7255 (.245) P=.000	.7227 (.245) P=.000	.0318 (.241) P=.311	.0704 (.242) P=.112	.0825 (.241) P=.101	.0441 (.242) P=.237	.0426 (.242) P=.255	.0232 (.243) P=.074
FC9	.5260 (.246) P=.000	.6887 (.248) P=.000	1.0000 (.248) P=.000	.6437 (.248) P=.000	.7030 (.245) P=.000	.0560 (.241) P=.194	.0720 (.241) P=.133	.1093 (.241) P=.004	.0540 (.241) P=.193	.0141 (.241) P=.914	.0300 (.242) P=.371
FC10	.5045 (.247) P=.000	.7255 (.249) P=.000	.6437 (.248) P=.000	1.0000 (.249) P=.000	.8176 (.245) P=.000	.0047 (.242) P=.471	.0454 (.242) P=.241	.1279 (.241) P=.023	.0137 (.242) P=.416	.0831 (.242) P=.164	.0189 (.243) P=.300
FC1	.7472 (.245) P=.000	.7227 (.245) P=.000	.7030 (.245) P=.000	.6437 (.248) P=.000	1.0000 (.245) P=.000	.0237 (.238) P=.552	.0361 (.238) P=.290	.1086 (.238) P=.002	.0724 (.238) P=.133	.0442 (.238) P=.414	.0600 (.239) P=.174
SC1	.0660 (.240) P=.151	.0310 (.242) P=.311	.0560 (.241) P=.194	.0037 (.242) P=.471	.0247 (.238) P=.562	1.0000 (.242) P=.000	.2753 (.241) P=.000	.3001 (.241) P=.000	.3742 (.241) P=.000	.2240 (.240) P=.000	.3171 (.242) P=.000
SC2	.0237 (.240) P=.357	.0704 (.242) P=.112	.0720 (.241) P=.133	.0454 (.242) P=.241	.0361 (.238) P=.290	.2753 (.241) P=.000	1.0000 (.242) P=.000	.3015 (.241) P=.000	.4127 (.241) P=.000	.2753 (.241) P=.000	.3200 (.242) P=.000
SC3	.1278 (.240) P=.007	.0932 (.240) P=.075	.0540 (.241) P=.193	.0141 (.241) P=.914	.0300 (.242) P=.371	.0318 (.241) P=.311	.0704 (.242) P=.112	1.0000 (.242) P=.000	.3709 (.241) P=.000	.4440 (.241) P=.000	.2879 (.242) P=.000
SC4	.0932 (.240) P=.075	.0441 (.242) P=.237	.0540 (.241) P=.193	.0141 (.241) P=.914	.0300 (.242) P=.371	.0318 (.241) P=.311	.0704 (.242) P=.112	.3709 (.241) P=.000	1.0000 (.242) P=.000	.2929 (.240) P=.000	.3952 (.242) P=.000
SC5	.0313 (.240) P=.315	.0426 (.242) P=.255	.0141 (.241) P=.914	.0037 (.242) P=.471	.0247 (.238) P=.562	.2753 (.241) P=.000	.3001 (.241) P=.000	.4440 (.241) P=.000	.2729 (.240) P=.000	1.0000 (.242) P=.000	.3056 (.241) P=.000
SC6	.0291 (.241) P=.275	.0232 (.243) P=.074	.0300 (.242) P=.371	.0141 (.241) P=.914	.0300 (.242) P=.371	.0318 (.241) P=.311	.0704 (.242) P=.112	.3709 (.242) P=.000	.3952 (.242) P=.000	.3056 (.241) P=.000	1.0000 (.243) P=.000

(Table 12 continued)

----- PEARSON CORRELATION COEFFICIENTS -----											
	FC7	FC8	FC9	FC10	FC1	SC2	SC3	SC4	SC5	SC6	
SC7	.1091 (.241) P=.047	-.0094 (.242) P=.442	.0419 (.242) P=.265	-.0772 (.243) P=.115	.0075 (.239) P=.454	.2196 (.242) P=.000	.2651 (.242) P=.000	.2525 (.243) P=.000	.2663 (.241) P=.000	.2634 (.243) P=.000	
SC8	-.0745 (.210) P=.120	-.0108 (.240) P=.434	-.1003 (.239) P=.061	-.0559 (.240) P=.194	-.0475 (.216) P=.235	.1269 (.239) P=.023	.2196 (.240) P=.000	.2454 (.233) P=.000	.3519 (.239) P=.000	.3579 (.240) P=.000	
SC9	.1091 (.240) P=.047	.0248 (.242) P=.351	.0216 (.241) P=.369	.0103 (.242) P=.437	.0542 (.218) P=.194	.2983 (.241) P=.000	.4451 (.241) P=.000	.4313 (.241) P=.000	.2714 (.240) P=.000	.4590 (.242) P=.000	
SC1	.0790 (.210) P=.118	-.0504 (.235) P=.227	.0024 (.242) P=.481	-.0102 (.235) P=.323	.0160 (.211) P=.405	.2553 (.235) P=.000	.4404 (.235) P=.000	.4410 (.235) P=.000	.4320 (.235) P=.000	.6724 (.235) P=.000	
(COEFFICIENT / (CASES) / 1-TAILING SIG) " " IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED											
AT1	.1580 (.242) P=.000	-.0460 (.236) P=.236	.0761 (.241) P=.120	.1994 (.234) P=.001							
AT2	.1649 (.241) P=.005	.1109 (.230) P=.044	.1233 (.240) P=.020	.2544 (.233) P=.000							
AT3	.1927 (.241) P=.001	.0845 (.218) P=.097	.2088 (.240) P=.001	.3167 (.233) P=.000							
AT4	.1497 (.241) P=.010	.0746 (.210) P=.194	.1875 (.240) P=.002	.2602 (.233) P=.000							
AT7	.2064 (.240) P=.001	.0753 (.237) P=.123	.1902 (.239) P=.002	.3301 (.232) P=.000							
FC1	-.0214 (.243) P=.370	-.0187 (.208) P=.375	.0010 (.242) P=.474	-.0209 (.235) P=.375							
FC2	.0084 (.243) P=.440	.0127 (.207) P=.363	.0123 (.242) P=.309	.0821 (.235) P=.104							
FC3	.0509 (.243) P=.215	.0313 (.240) P=.313	.1156 (.242) P=.032	.1182 (.237) P=.049							
FC4	-.0417 (.242) P=.259	-.0601 (.235) P=.177	-.0182 (.241) P=.389	-.0782 (.236) P=.136							
FC5	.0694 (.243) P=.140	.0519 (.240) P=.212	.0466 (.242) P=.235	.0359 (.235) P=.292							
FC6	-.0490 (.243) P=.244	-.0401 (.240) P=.260	.0323 (.240) P=.309	-.0374 (.235) P=.284							

(Table 12 continued)

1c7	1c8	1c9	1c10	1c11	1c12	1c13	1c14	1c15	1c16	1c17	1c18	1c19	1c20	1c21	1c22	1c23	1c24	1c25	1c26	1c27	1c28	1c29	1c30
1c31	1c32	1c33	1c34	1c35	1c36	1c37	1c38	1c39	1c40	1c41	1c42	1c43	1c44	1c45	1c46	1c47	1c48	1c49	1c50	1c51	1c52	1c53	1c54
1c55	1c56	1c57	1c58	1c59	1c60	1c61	1c62	1c63	1c64	1c65	1c66	1c67	1c68	1c69	1c70	1c71	1c72	1c73	1c74	1c75	1c76	1c77	1c78
1c79	1c80	1c81	1c82	1c83	1c84	1c85	1c86	1c87	1c88	1c89	1c90	1c91	1c92	1c93	1c94	1c95	1c96	1c97	1c98	1c99	1c100	1c101	1c102
1c103	1c104	1c105	1c106	1c107	1c108	1c109	1c110	1c111	1c112	1c113	1c114	1c115	1c116	1c117	1c118	1c119	1c120	1c121	1c122	1c123	1c124	1c125	1c126
1c127	1c128	1c129	1c130	1c131	1c132	1c133	1c134	1c135	1c136	1c137	1c138	1c139	1c140	1c141	1c142	1c143	1c144	1c145	1c146	1c147	1c148	1c149	1c150
1c151	1c152	1c153	1c154	1c155	1c156	1c157	1c158	1c159	1c160	1c161	1c162	1c163	1c164	1c165	1c166	1c167	1c168	1c169	1c170	1c171	1c172	1c173	1c174
1c175	1c176	1c177	1c178	1c179	1c180	1c181	1c182	1c183	1c184	1c185	1c186	1c187	1c188	1c189	1c190	1c191	1c192	1c193	1c194	1c195	1c196	1c197	1c198
1c199	1c200	1c201	1c202	1c203	1c204	1c205	1c206	1c207	1c208	1c209	1c210	1c211	1c212	1c213	1c214	1c215	1c216	1c217	1c218	1c219	1c220	1c221	1c222
1c223	1c224	1c225	1c226	1c227	1c228	1c229	1c230	1c231	1c232	1c233	1c234	1c235	1c236	1c237	1c238	1c239	1c240	1c241	1c242	1c243	1c244	1c245	1c246
1c247	1c248	1c249	1c250	1c251	1c252	1c253	1c254	1c255	1c256	1c257	1c258	1c259	1c260	1c261	1c262	1c263	1c264	1c265	1c266	1c267	1c268	1c269	1c270
1c271	1c272	1c273	1c274	1c275	1c276	1c277	1c278	1c279	1c280	1c281	1c282	1c283	1c284	1c285	1c286	1c287	1c288	1c289	1c290	1c291	1c292	1c293	1c294
1c295	1c296	1c297	1c298	1c299	1c300	1c301	1c302	1c303	1c304	1c305	1c306	1c307	1c308	1c309	1c310	1c311	1c312	1c313	1c314	1c315	1c316	1c317	1c318
1c319	1c320	1c321	1c322	1c323	1c324	1c325	1c326	1c327	1c328	1c329	1c330	1c331	1c332	1c333	1c334	1c335	1c336	1c337	1c338	1c339	1c340	1c341	1c342
1c343	1c344	1c345	1c346	1c347	1c348	1c349	1c350	1c351	1c352	1c353	1c354	1c355	1c356	1c357	1c358	1c359	1c360	1c361	1c362	1c363	1c364	1c365	1c366
1c367	1c368	1c369	1c370	1c371	1c372	1c373	1c374	1c375	1c376	1c377	1c378	1c379	1c380	1c381	1c382	1c383	1c384	1c385	1c386	1c387	1c388	1c389	1c390
1c391	1c392	1c393	1c394	1c395	1c396	1c397	1c398	1c399	1c400	1c401	1c402	1c403	1c404	1c405	1c406	1c407	1c408	1c409	1c410	1c411	1c412	1c413	1c414
1c415	1c416	1c417	1c418	1c419	1c420	1c421	1c422	1c423	1c424	1c425	1c426	1c427	1c428	1c429	1c430	1c431	1c432	1c433	1c434	1c435	1c436	1c437	1c438
1c439	1c440	1c441	1c442	1c443	1c444	1c445	1c446	1c447	1c448	1c449	1c450	1c451	1c452	1c453	1c454	1c455	1c456	1c457	1c458	1c459	1c460	1c461	1c462
1c463	1c464	1c465	1c466	1c467	1c468	1c469	1c470	1c471	1c472	1c473	1c474	1c475	1c476	1c477	1c478	1c479	1c480	1c481	1c482	1c483	1c484	1c485	1c486
1c487	1c488	1c489	1c490	1c491	1c492	1c493	1c494	1c495	1c496	1c497	1c498	1c499	1c500	1c501	1c502	1c503	1c504	1c505	1c506	1c507	1c508	1c509	1c510
1c511	1c512	1c513	1c514	1c515	1c516	1c517	1c518	1c519	1c520	1c521	1c522	1c523	1c524	1c525	1c526	1c527	1c528	1c529	1c530	1c531	1c532	1c533	1c534
1c535	1c536	1c537	1c538	1c539	1c540	1c541	1c542	1c543	1c544	1c545	1c546	1c547	1c548	1c549	1c550	1c551	1c552	1c553	1c554	1c555	1c556	1c557	1c558
1c559	1c560	1c561	1c562	1c563	1c564	1c565	1c566	1c567	1c568	1c569	1c570	1c571	1c572	1c573	1c574	1c575	1c576	1c577	1c578	1c579	1c580	1c581	1c582
1c583	1c584	1c585	1c586	1c587	1c588	1c589	1c590	1c591	1c592	1c593	1c594	1c595	1c596	1c597	1c598	1c599	1c600	1c601	1c602	1c603	1c604	1c605	1c606
1c607	1c608	1c609	1c610	1c611	1c612	1c613	1c614	1c615	1c616	1c617	1c618	1c619	1c620	1c621	1c622	1c623	1c624	1c625	1c626	1c627	1c628	1c629	1c630
1c631	1c632	1c633	1c634	1c635	1c636	1c637	1c638	1c639	1c640	1c641	1c642	1c643	1c644	1c645	1c646	1c647	1c648	1c649	1c650	1c651	1c652	1c653	1c654
1c655	1c656	1c657	1c658	1c659	1c660	1c661	1c662	1c663	1c664	1c665	1c666	1c667	1c668	1c669	1c670	1c671	1c672	1c673	1c674	1c675	1c676	1c677	1c678
1c679	1c680	1c681	1c682	1c683	1c684	1c685	1c686	1c687	1c688	1c689	1c690	1c691	1c692	1c693	1c694	1c695	1c696	1c697	1c698	1c699	1c700	1c701	1c702
1c703	1c704	1c705	1c706	1c707	1c708	1c709	1c710	1c711	1c712	1c713	1c714	1c715	1c716	1c717	1c718	1c719	1c720	1c721	1c722	1c723	1c724	1c725	1c726
1c727	1c728	1c729	1c730	1c731	1c732	1c733	1c734	1c735	1c736	1c737	1c738	1c739	1c740	1c741	1c742	1c743	1c744	1c745	1c746	1c747	1c748	1c749	1c750
1c751	1c752	1c753	1c754	1c755	1c756	1c757	1c758	1c759	1c760	1c761	1c762	1c763	1c764	1c765	1c766	1c767	1c768	1c769	1c770	1c771	1c772	1c773	1c774
1c775	1c776	1c777	1c778	1c779	1c780	1c781	1c782	1c783	1c784	1c785	1c786	1c787	1c788	1c789	1c790	1c791	1c792	1c793	1c794	1c795	1c796	1c797	1c798
1c799	1c800	1c801	1c802	1c803	1c804	1c805	1c806	1c807	1c808	1c809	1c810	1c811	1c812	1c813	1c814	1c815	1c816	1c817	1c818	1c819	1c820	1c821	1c822
1c823	1c824	1c825	1c826	1c827	1c828	1c829	1c830	1c831	1c832	1c833	1c834	1c835	1c836	1c837	1c838	1c839	1c840	1c841	1c842	1c843	1c844	1c845	1c846
1c847	1c848	1c849	1c850	1c851	1c852	1c853	1c854	1c855	1c856	1c857	1c858	1c859	1c860	1c861	1c862	1c863	1c864	1c865	1c866	1c867	1c868	1c869	1c870
1c871	1c872	1c873	1c874	1c875	1c876	1c877	1c878	1c879	1c880	1c881	1c882	1c883	1c884	1c885	1c886	1c887	1c888	1c889	1c890	1c891	1c892	1c893	1c894
1c895	1c896	1c897	1c898	1c899	1c900	1c901	1c902	1c903	1c904	1c905	1c906	1c907	1c908	1c909	1c910	1c911	1c912	1c913	1c914	1c915	1c916	1c917	1c918
1c919	1c920	1c921	1c922	1c923	1c924	1c925	1c926	1c927	1c928	1c929	1c930	1c931	1c932	1c933	1c934	1c935	1c936	1c937	1c938	1c939	1c940	1c941	1c942
1c943	1c944	1c945	1c946	1c947	1c948	1c949	1c950	1c951	1c952	1c953	1c954	1c955	1c956	1c957	1c958	1c959	1c960	1c961	1c962	1c963	1c964	1c965	1c966
1c967	1c968	1c969	1c970	1c971	1c972	1c973	1c974	1c975	1c976	1c977	1c978	1c979	1c980	1c981	1c982	1c983	1c984	1c985	1c986	1c987	1c988	1c989	1c990
1c991	1c992	1c993	1c994	1c995	1c996	1c997	1c998	1c999	1c1000	1c1001	1c1002	1c1003	1c1004	1c1005	1c1006	1c1007	1c1008	1c1009	1c1010	1c1011	1c1012	1c1013	1c1014
1c1015	1c1016	1c1017	1c1018	1c1019	1c1020	1c1021	1c1022	1c1023	1c1024	1c1025	1c1026	1c1027	1c1028	1c1029	1c1030	1c1031	1c1032	1c1033	1c1034	1c1035	1c1036	1c1037	1c1038
1c1039	1c1040	1c1041	1c1042	1c1043	1c1044	1c1045	1c1046	1c1047	1c1048	1c1049	1c1050	1c1051	1c1052	1c1053	1c1054	1c1055	1c1056	1c1057	1c1058	1c1059	1c1060	1c1061	1c1062
1c1063	1c1064	1c1065	1c1066	1c1067	1c1068	1c1069	1c1070	1c1071	1c1072	1c1073	1c1074	1c1075	1c1076	1c1077	1c1078	1c1079	1c1080	1c1081	1c1082	1c1083	1c1084	1c1085	1c1086
1c1087	1c1088	1c1089	1c1090	1c1091	1c1092	1c1093	1c1094	1c1095	1c1096	1c1097	1c1098	1c1099	1c1100	1c1101	1c1102	1c1103	1c1104	1c1105	1c1106	1c1107	1c1108	1c1109	1c1110
1c1111	1c1112	1c1113	1c1114	1c1115	1c1116	1c1117	1c1118	1c1119	1c1120	1c1121	1c1122	1c1123	1c1124	1c1125	1c1126	1c1127	1c1128	1c1129	1c1130	1c1131	1c1132	1c1133	1c1134
1c1135	1c1136	1c1137	1c1138	1c1139	1c1140	1c1141	1c1142	1c1143	1c1144	1c1145	1c1146	1c1147	1c1148	1c1149	1c1150	1c1151	1c1152	1c1153	1c1154	1c1155	1c1156	1c1157	1c1158
1c1159	1c1160	1c1161	1c1162	1c1163	1c1164	1c1165	1c1166	1c1167	1c1168	1c1169	1c1170	1c1171	1c1172	1c1173	1c1174	1c1175	1c1176	1c1177	1c1178	1c1179	1c1180	1c1181	1c1182
1c1183	1c1184	1c1185	1c1186	1c1187	1c1188	1c1189	1c1190	1c1191	1c1192	1c1193	1c119												

APPENDIX K

FOR COMBINED STUDENTS:

MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL AND
SELF-IMAGE CONGRUITIES

PEARSON CORRELATION COEFFICIENTS AMONG
FUNCTIONAL CONGRUITIES AND ATTITUDE

PEARSON CORRELATION COEFFICIENTS AMONG
SELF-IMAGE CONGRUITIES AND ATTITUDE

Table 13

Means and standard deviations for FCs, SCs, FCT, SCT, and attitude, for combined students

VARIABLE	CASES	MEAN	STD DEV
AT1	502	1.7510	.9176
AT2	500	2.3200	1.1935
AT3	500	2.1540	1.1701
AT4	498	2.2349	1.3273
ATT	496	2.1094	.9572
FC1	502	3.5319	3.4999
FC2	502	5.4343	4.1106
FC3	501	6.1796	5.1381
FC4	500	3.9180	3.8716
FC5	502	6.4223	5.2769
FC6	502	4.6932	4.4861
FC7	498	3.7189	4.1614
FC8	501	3.6128	3.7706
FC9	501	3.6806	4.2263
FC10	502	3.6614	3.9011
FCT	493	4.4838	2.9519
SC1	490	.6939	.7702
SC2	492	.7866	.8735
SC3	490	.7633	.8296
SC4	491	1.0998	1.0303
SC5	492	.9695	.9789
SC6	491	1.0407	.9951
SC7	493	.8012	.9612
SC8	491	.8391	.8856
SC9	493	.8661	.9274
SCT	473	.8739	.5630

Table 14

Correlation coefficients among FCs, SCs, FCT, SCT, and Attitude,
for combined students

----- PEARSON CORRELATION COEFFICIENTS -----												
	AT1	AT2	AT3	AT4	AT5	FC1	FC2	FC3	FC4	FC5	FC6	
AT1	.1000 (.501) P=.000	-.5500 (.501) P=.000	-.5949 (.499) P=.000	-.5320 (.497) P=.000	-.7649 (.496) P=.000	-.4527 (.501) P=.000	-.3203 (.501) P=.000	-.2021 (.500) P=.000	-.4304 (.501) P=.000	-.0709 (.501) P=.000	-.2079 (.501) P=.000	
AT2		.5500 (.501) P=.000	-.5796 (.498) P=.000	-.5413 (.496) P=.000	-.0154 (.496) P=.000	-.3265 (.499) P=.000	-.2320 (.499) P=.000	-.1705 (.498) P=.000	-.3212 (.497) P=.000	-.0239 (.499) P=.000	-.2124 (.499) P=.000	
AT3			-.5796 (.498) P=.000	-.7244 (.498) P=.000	-.0706 (.496) P=.000	-.3546 (.499) P=.000	-.3075 (.499) P=.000	-.2046 (.498) P=.000	-.3493 (.497) P=.000	-.0855 (.499) P=.000	-.1099 (.499) P=.000	
AT4				-.7244 (.498) P=.000	-.0624 (.496) P=.000	-.3235 (.497) P=.000	-.2230 (.497) P=.000	-.1957 (.496) P=.000	-.3431 (.495) P=.000	-.0560 (.497) P=.000	-.1763 (.497) P=.000	
AT5					-.0624 (.496) P=.000	-.4371 (.495) P=.000	-.3242 (.495) P=.000	-.2321 (.494) P=.000	-.4270 (.494) P=.000	-.0767 (.495) P=.000	-.2365 (.495) P=.000	
FC1						1.0000 (.502) P=.000	-.4095 (.502) P=.000	-.4323 (.501) P=.000	-.6407 (.500) P=.000	-.2755 (.502) P=.000	-.4442 (.502) P=.000	
FC2							1.0000 (.501) P=.000	-.4107 (.501) P=.000	-.3057 (.501) P=.000	-.3039 (.501) P=.000	-.3525 (.502) P=.000	
FC3								1.0000 (.501) P=.000	-.3204 (.499) P=.000	-.3203 (.501) P=.000	-.3219 (.501) P=.000	
FC4									1.0000 (.500) P=.000	-.2449 (.500) P=.000	-.4009 (.500) P=.000	
FC5										1.0000 (.502) P=.000	-.2001 (.502) P=.000	
FC6											1.0000 (.502) P=.000	

(Table 14 continued)

	PEARSON CORRELATION COEFFICIENTS			
	SC7	SC8	SC9	SCF
A11	.1430 (.492) P = .001	.0154 (.490) P = .367	.0875 (.492) P = .026	.2200 (.472) P = .000
A12	.1557 (.490) P = .000	.1306 (.488) P = .001	.1267 (.490) P = .002	.2743 (.470) P = .000
A13	.1837 (.490) P = .000	.0912 (.486) P = .022	.2121 (.491) P = .000	.3205 (.471) P = .000
A14	.1680 (.488) P = .000	.0535 (.486) P = .120	.1897 (.489) P = .000	.2706 (.469) P = .000
A1T	.1980 (.486) P = .000	.0804 (.484) P = .026	.1900 (.487) P = .000	.3210 (.467) P = .000
FC1	.0394 (.491) P = .191	.0123 (.491) P = .393	.0330 (.493) P = .227	.0505 (.473) P = .136
FC2	.1075 (.491) P = .008	.0457 (.491) P = .156	.0153 (.493) P = .367	.1355 (.473) P = .003
FC3	.0763 (.492) P = .045	.0202 (.490) P = .328	.0377 (.492) P = .202	.0702 (.472) P = .064
FC4	.0422 (.491) P = .175	.0207 (.489) P = .324	.0626 (.491) P = .083	.0515 (.471) P = .132
FC5	.0551 (.493) P = .111	.0112 (.491) P = .402	.0222 (.493) P = .311	.0024 (.473) P = .479
FC6	-.0021 (.493) P = .402	.0664 (.491) P = .071	.0945 (.493) P = .010	.0814 (.473) P = .038
(COEFFICIENT / (CASES) / 1-TAILED SIG)				" " IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED

(Table 14 continued)

	SC7	SC8	SC9	SC7
IC7	.1393 t = .403 p = .001	.0000 t = .407 p = .410	.1479 t = .403 p = .001	.1591 t = .423 p = .000
IC8	.0522 t = .431 p = .163	.0624 t = .499 p = .004	.0335 t = .423 p = .019	.0649 t = .423 p = .000
IC9	.0909 t = .423 p = .023	.0043 t = .430 p = .460	.0763 t = .472 p = .045	.0057 t = .423 p = .031
IC10	.0356 t = .431 p = .215	.0166 t = .431 p = .357	.0606 t = .431 p = .044	.0709 t = .473 p = .043
IC1	.0725 t = .407 p = .021	.0339 t = .402 p = .735	.0922 t = .403 p = .021	.1107 t = .441 p = .004
SC1	.2009 t = .403 p = .000	.1421 t = .407 p = .001	.2025 t = .400 p = .000	.2032 t = .423 p = .000
SC2	.2036 t = .423 p = .000	.2369 t = .430 p = .000	.4075 t = .430 p = .000	.4399 t = .423 p = .000
SC3	.2769 t = .403 p = .000	.2517 t = .407 p = .000	.2065 t = .400 p = .000	.4351 t = .423 p = .000
SC4	.2182 t = .423 p = .000	.2219 t = .400 p = .000	.4037 t = .403 p = .000	.4037 t = .423 p = .000
SC5	.1633 t = .430 p = .000	.2094 t = .403 p = .000	.2391 t = .403 p = .000	.4311 t = .423 p = .000
SC6	.2046 t = .430 p = .000	.3379 t = .400 p = .000	.3937 t = .403 p = .000	.4257 t = .423 p = .000
SC7	.1009 t = .431 p = .000	.1754 t = .430 p = .000	.2123 t = .431 p = .000	.4797 t = .423 p = .000
SC8	.1256 t = .430 p = .000	.1000 t = .411 p = .000	.3259 t = .403 p = .000	.5601 t = .423 p = .000
SC9	.2173 t = .431 p = .000	.3259 t = .403 p = .000	.1000 t = .431 p = .000	.6569 t = .423 p = .000
SC1	.4740 t = .473 p = .000	.5601 t = .473 p = .000	.6569 t = .473 p = .000	1.0009 t = .473 p = .000

APPENDIX L

FOR MARKETING STUDENTS:

MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL CONGRUENCE
TOTAL, SELF-IMAGE CONGRUENCE TOTAL,
SOCIAL CLASS INDICATORS, AND ATTITUDE

PEARSON CORRELATION COEFFICIENTS AMONG
FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE
CONGRUENCE TOTAL, SOCIAL CLASS INDICATORS,
AND ATTITUDE

APPENDIX M

FOR NON-MARKETING STUDENTS:

MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL CONGRUENCE
TOTAL, SELF-IMAGE CONGRUENCE TOTAL,
SOCIAL CLASS INDICATORS, AND ATTITUDE

PEARSON CORRELATION COEFFICIENTS AMONG
FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE
CONGRUENCE TOTAL, SOCIAL CLASS INDICATORS,
AND ATTITUDE

APPENDIX N

FOR COMBINED STUDENTS:

MEANS AND STANDARD DEVIATIONS OF FUNCTIONAL
CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL
SOCIAL CLASS INDICATORS, AND ATTITUDE

PEARSON CORRELATION COEFFICIENTS AMONG
FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE
CONGRUENCE TOTAL, SOCIAL CLASS INDICATORS,
AND ATTITUDE

Table 17

For combined students
Means and standard deviations for FCT, SCT, social class indicators, and attitude
Correlation coefficients among FCT, SCT, social class indicators and Attitude

	Mean	Std Dev	Label							
SCI	.910	.562								
FCT	4.136	2.336								
HED	3.678	1.163								
FED	3.716	1.378								
FOC	4.365	1.692								
INOC	4.882	2.430								
INHC	4.180	2.258								
ATT	2.111	.971								
N of Cases = 211										
Correlations:										
	SCI	FCT	HED	FED	FOC	INOC	INHC	ATT		
SCI	1.000									
FCT	.101	1.000								
HED	.174	-.008	1.000							
FED	.067	.021	.480	1.000						
FOC	.055	-.058	.167	.486	1.000					
INOC	.030	-.042	.091	.258	1.000	1.000				
INHC	.179	.056	.375	.174	.224	.174	1.000			
ATT	.278	.509	.262	.064	-.063	.047	.306	1.000		

APPENDIX O

FOR MARKETING STUDENTS:

MEANS AND STANDARD DEVIATIONS FOR FUNCTIONAL
CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL,
GENDER, AND ATTITUDE

PEARSON CORRELATION COEFFICIENTS AMONG
FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE
CONGRUENCE TOTAL, GENDER,
AND ATTITUDE

Table 18

For marketing students
Means and standard deviations for FCT, SCT, social class indicators,
gender, and attitude
Correlation coefficients among FCT, SCT, social class indicators, gender
and Attitude

Mean Std Dev Label

SCT	.821	.495	
FCT	3.735	1.088	
MED	3.500	1.047	
FED	3.573	1.317	
FOC	4.291	1.587	
HOC	4.691	2.372	
SEX	1.491	.502	
INC	3.745	1.965	
ATT	1.605	.698	

N of Cases = 110

Correlation:

	SCT	FCT	MED	FED	FOC	HOC	SFX	INC	ATT
SCT	1.000								
FCT	.091	1.000							
MED	.125	-.191	1.000						
FED	.046	.025	.456	1.000					
FOC	.156	-.073	.304	.596	1.000				
HOC	-.083	-.093	.174	.163	.282	1.000			
SEX	.090	-.042	-.052	-.096	-.031	.005	1.000		
INC	.083	.119	.290	.504	.268	.107	.160	1.000	
ATT	.094	.489	-.025	-.068	-.160	-.088	.062	.137	1.000

APPENDIX P

FOR NON-MARKETING STUDENTS:

MEANS AND STANDARD DEVIATIONS FOR FUNCTIONAL
CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL,
GENDER, AND ATTITUDE

PEARSON CORRELATION COEFFICIENTS AMONG
FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE
CONGRUENCE TOTAL, GENDER,
AND ATTITUDE

APPENDIX Q

FOR COMBINED STUDENTS:

MEANS AND STANDARD DEVIATIONS FOR FUNCTIONAL
CONGRUENCE TOTAL, SELF-IMAGE CONGRUENCE TOTAL,
GENDER, AND ATTITUDE

PEARSON CORRELATION COEFFICIENTS AMONG
FUNCTIONAL CONGRUENCE TOTAL, SELF-IMAGE
CONGRUENCE TOTAL, GENDER,
AND ATTITUDE

APPENDIX R

SAMPLE SIZES FOR PROPORTIONS USING ONE-TAILED TESTS
WITH VARYING EFFECT SIZES AND LEVELS OF POWER

Table 21

Sample sizes for proportions using one-tailed tests with varying effect sizes and levels of power.

$\alpha = .05$							
Power of the statistical test							
d	ES	.75	.80	.85	.90	.95	.99
.01	.02	13,450	15,457	17,974	21,412	27,057	39,426
.02	.04	3,363	3,865	4,493	5,353	6,765	9,857
.04	.08	841	967	1,124	1,339	1,692	2,465
.05	.10	538	619	719	857	1,083	1,577
.06	.12	374	430	500	595	752	1,096
.08	.16	211	242	281	335	423	616
.10	.20	135	155	180	215	271	395
.15	.30	60	69	80	96	121	176
.20	.40	34	39	45	54	68	99
.25	.50	22	25	29	35	44	64
.50	1.00	6	7	8	9	11	16
$\alpha = .01$							
.01	.02	22,512	25,089	28,270	32,543	39,426	54,117
.02	.04	5,628	6,272	7,068	8,136	9,857	13,530
.04	.08	1,407	1,568	1,767	2,034	2,465	3,383
.05	.10	901	1,004	1,131	1,302	1,577	2,165
.06	.12	626	697	786	904	1,096	1,504
.08	.16	352	393	442	509	616	846
.10	.20	226	251	283	326	395	542
.15	.30	100	112	126	145	176	241
.20	.40	57	63	71	82	99	136
.25	.50	36	41	46	53	64	87
.50	1.00	9	10	12	14	16	22

VITA

Maria K. Hatzios
 613 Broce Drive
 Blacksburg, VA 24060
 Home Telephone: (703) 552-6504

EDUCATION:

EdD 1990
 Major: Vocational and Technical Education, Concentration-
 Marketing Education
 Cognate: Marketing
 VPI & SU, Blacksburg, Virginia

MBA 1979
 Major: Marketing, Central Michigan University
 Mount Pleasant, Michigan

BA 1973
 Major: History, Michigan State University
 East Lansing, MI

EXPERIENCE:

August 1990 - Present	Marketing Instructor New River Community College Dublin, Virginia
September 1985 - May 1986	Marketing Instructor Radford University Radford, Virginia
September 1980 - June 1985	Marketing Instructor VPI & SU Blacksburg, Virginia
June 1973 - August 1979	Library Assistant Michigan State University Library East Lansing, Michigan

PROFESSIONAL ASSOCIATIONS:

Marketing Education Association
 American Marketing Association
 American Vocational Association
 Virginia Vocational Association
 Omicron Tau Theta Society


 Maria Grammatikaki-Hatzios