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THE DEVELOPMENT OF PSYCHOGRAPHICS AND LIFESTYLE ANALYSIS FOR SEGMENTING THE ACTUAL MARKET IN MAKING PROGRAM-RELATED AND PROMOTION-RELATED DECISIONS IN NON-CREDIT PROGRAMS

A Dissertation

Presented for the

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ABSTRACT

This study investigated the potential of psychographics and lifestyle analysis for segmenting the actual market in continuing education so that program and promotion related decisions could be made more effectively. One basic research question was whether or not the technique had power to distinquish among adult learners currently enrolled in different types of learning activities. In other words, did psychographic and lifestyle data disclose that current participants in different learning activities have a different learning interests, opinions on social and education issues, motivations for participation, feelings of job satisfaction, leisure activities, television viewing habits, and organizational membership?

A stratified random sample of 500 adult students enrolled in non-credit courses in the Department of Non-Credit Programs, Division of Continuing Education, at The University of tennessee, Knoxville, during the Winter Quarter of 1978 comprised subjects of the study. Three hundred sixty-nine replies, or 73.8 percent of the questionnaires, were returned.

Using learning groups as the independent variable the following analyses were undertaken - discriminant analysis was conducted on each of the following psychographic and

lifestyle dimensions: opinions, interest, motivation for participation, activities in the past year, television viewing habits, magazine preferences, job satisfaction and demographic scores (age, family income, highest level of education attained, number of children). A chi-square analysis was conducted on radio station preferences, sex, marital status, religious affiliation, occupation, zip code, number of non-credit programs taken previously, and first page of newspaper read after the general news on page one. Responses to interests and activities in the past year items were factor analyzed to structure a correlation matrix. The level of significance used for all statistical tests was $p<.10$.

The data disclosed that psychographics and lifestyle analysis had the ability to differentiate among the 369 adult students enrolled in the five learning groups. Each dimension of the research instrument provided statistically significant results except for the Job Satisfaction dimension. The overall reliability was estimated at .94 when scored by Cronbach's Alpha. The research instrument has face, content and construct validity.

If the research instrument had to be reduced in length for brevity and yet provide the researcher with the most reliable data to make marketing decisions, the job satisfaction, interest, activities in the past year, television viewing habits/preference, and magazine preference

dimensions would comprise the psychographic and lifestyle analysis section of the research instrument. Data suggested that continuing education administrators could "target" their promotional activities and reach specific groups if they had access to psychographic and lifestyle information.

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CHAPTER I

INTRODUCTION

Leaders in higher education are beginning to view continuing education as active, innovative, and contemporary. By being responsive to the needs of society, continuing education has gained acceptance in status and enrollment by providing new learning opportunities to both the educated and the less fortunate in a variety of different designs.

With a mixture of great opportunity and challenge, continuing education has expanded and has become an integral part of higher education. The Commission on Non-Traditional Study (1973) sponsored a study which showed that an estimated 32.1 million Americans between 18 and 60 years of age were participants in formal, part-time instruction. The United States Office of Education (1971) reported that an estimated 13.2 million Americans (11.0 percent) had participated in some form of formal, part-time instruction during the previous year. According to the 1971-72 and 1975-76 Joint Reports on Programs and Registration by the Association of Continuing and Higher Education and National University Extension Association (1971-72: 27, and 1975-76: 43), the total number of enrollments in non-credit programs grew from 249,260 registrations in fiscal year 1972 to 1,077,223 registrations in 1976.

The growth of continuing education can be attributed to many demographic and technological reasons. Post World War II babies entering adulthood, increased life expectancy, and approaching zero population growth in America are all factors which will have a profound effect upon the growth of continuing education in the coming years. The U. S. Census Bureau (1974) projected that the over-25 age group would increase by 45 million (37.7 percent) between 1974 and 2000.

Coupled with this increase in adult population are rapid technological changes. Jensen, Liveright, and Hallenbech (1964: iv-v) observed that "more knowledge has been discovered during the lifetime of the present adult population than existed at the time of its birth." Davis (1974: 245) stated that "the amount of knowledge available to an individual today is expected to double in the next eight years." In 1963, Margaret Mead made this profound statement about the future:

> We cannot avoid facing the most vivid truth of the new age: no one will live all of his life in the same world in which he was born and no one will die in the same world in which he worked to his maturity. (Gross, 1963: 271.)

With this state of being, many persons will be forced to continue their educations to stay abreast of new knowledge and technology in their chosen professions. Many people will fall victim to obsolete knowledge and skills. Knowledge obsolescence associated with new machine technology will cause many persons to learn new occupations.

As new machinery and technology are developed and implemented, the average work week will continue to decline. A Wayne State University study reported in U. S. News and World Report (1977: 61) showed that "the average work week declined from 60 to 41 hours in the first half of this century and to 40.9 hours by 1975." With the observance of five national holidays on Mondays the national labor force is already experiencing some four-day work weeks. Should the four-day school week follow the lead of a four-day work week, then basic educational changes would result in the lengthening of the school day or the school year.

America is fortunate that technology has solved many or its problems, yet technology is creating a major dilemma for society. As a result of newly acquired technical knowledge and skills, people are faced with an abundance of free time. Society is now faced with changing from a protestant ethic orientation toward work to a pleasure-oriented society. With abundant free time, leisure can become a curse for people who do not want it or know how to use it. Today, Americans are spending more money and time on the pursuit of leisure activities than ever in the past.

All of the aforementioned factors will directly affect the future position of learning in a person's life cycle. The typical, formal, full-time structure of education occurring at the various youth, adolescent and early twenties stages of a student's life will not be as

conventional as in the past. The typical education will become atypical. Education is taking place at all stages of the life cycle--pre-kindergarten, post-secondary, mid-career or retirement. Learning is really becoming a life-long process.

The future of higher education, in terms of student enrollments, lies within the scope of continuing education. The U. S. Bureau of the Census (1974: 7) projects that the over-25 age group will increase by 37.7 percent by the year 2000 while the typical college age group (18 to 22) will remain relatively constant. These population projections mean that higher education will have to revamp its entire structure to handle this growth in eligible adults.

Since many higher education institutions are experiencing financial difficulties with current enrollments, perhaps financial support for adult learning opportunities should be given higher priority by both public and private institutions. Higher education has an opportunity to achieve a new reliance with this adult population to achieve a learning society. Hutchins (1968: 134-135) in his essay, The Learning Society, defined the Learning Society as a society which had succeeded in changing its values in such a way that learning, fulfillment and becoming human were its main objectives and every institution directed its efforts to these ends. He went on to explain that the Athenians had such a society made possible by slavery. In Athens

education was the aim of the society. Slavery allowed the Athenians free time--leisure, which was used in learning how to govern themselves and their community. Machines can do for our society what slavery did for Athens. Thus a world community learning to be civilized, learning to be human, is at least possible through education.

The final report by the Carnegie Commission on Higher Education (1973) recommended that conversions be made in higher education to accommodate the learning society. The 1973 report by the Study on Continuing Education and the Future (1973: 32) recommended that "each college or university should continuously renew its commitments as well as identify the resources necessary to meet its responsibility in life-long learning."

At the 1971 Conference of the American Association for Higher Education, Clark Kerr pointed out that higher education was in trouble. Higher education is no longer one of the rapid growth points in our society. Rather, higher education is entering a period of uncertainty, conflict, and potential change. These are uncharted times; past experience will be of little help. One thing is certain. The necessary answers are not predetermined; the outcome will depend on decisions made in progress.

Despite the anticipated growth and mounting interest in adult students, higher education should not expect a greater involvement of new, older and mature students in

their programs. A particular problem for higher education is the increased competition for adult students among other institutions of higher education, as well as among other institutions in our society. Table I lists the locations for adult learning activities that were identified by the Commission on Non-Traditional Study (Cross, 1974) in a survey of persons (sample size of 2,974 people from the survey universe of approximately 104 million persons) between the ages of 18 and 60 who were living in private households in the United States and who were not full-time students in mid-1972.

Table I shows that 71 percent of the formal adult learning occurs at locations other than educational institutions. The table shows that 52 percent of the would-be learners, those interested in upgrading their skills and knowledge, preferred the educational institutions. The report indicates that colleges and universities serve only 6 percent of the adults involved in some form of learning, and that no single institution has a monopoly or stronghold on the adult student market. It is obvious that there will be continual competition for the adult student as higher education institutions attempt to fulfill their mission in public service. This increase in enrollments from public service programs will mean added revenue for the higher education institutions.

Another problem that higher education must deal with is how to retain transient adult students. The Carnegie

TABLE I

LOCATIONS FOR LEARNING

Location	Percent of Would-Be Learners Preferring the Location	Percent of Learners Using the Location
Public high school, day or evening	16%	9%
Home	10	17
Public two-year college or technical institute	10	6
Community-run "free school"	10	3
Four-year college or university	8	6
Private vocational, trade or business school	8	3
Employer	5	13
Business or industrial site	5	5
Individual instructor	5	4
Correspondence school	4	2
Community or social organization, such as YMCA	3	6
Graduate school	3	2
Fine or performing arts or craft studio	3	*
Religious institution or group	2	6
Government Agency (federal, state or local)	2	5

TABLE I (Continued)

Location	Percent of Would-Be Learners Preferring the Location	Percent of Learners Using the Location
Library or other cultural institution, such as museum	1	2
Recreational or sports group	1	2
Other location	1	2
No response	5	5
TOTAL	100%	100%

*Less than one percent

NOTE: Percentages rounded; from Adult Learning Interests and Experiences by A.C. Carp, R. Peterson, P. Roelfs in K.P. Cross and J. Valley (eds.) Planning Non-Traditional Programs, p. 33.

Commission on Higher Education (1973: 28) report stated that there was ample evidence to conclude that learning most often is undertaken in small doses of one year or even less. Adults are largely voluntary students with very explicit learning interests. There is no compulsion for the adult student to continue with his/her education by taking more than one class. Continuing educators are faced with a multiplicity of problems in attracting and retaining adult students.

Because of these and other perplexing problems concerning the adult student, continuing education administrators are beginning to turn to the field of marketing for assistance. Buchanan and Barksdale (1974: 34) advocated the utilization of marketing as a tool in continuing education and extension circles. At various national meetings since 1973, educators have stressed the need for continuing education administrators to either seek professional marketers or develop these necessary skills themselves.

Forman and Waters (1976: 13) stated that effective marketing was consistent with the aim of educational institutions and was vital to their stated mission.

This new-found interest in marketing is understandable when the challenges for developing appropriate programs for adults and the increased competition from all types of institutions for mature men and women in their community are considered. Adult educators must learn how to deal with a

large, diverse and independent clientele. Most adults' learning interests are very specific, based upon their occupations; adult lifestyles are very diversified; many adults have been away from formal learning and are afraid to re-enter the classroom; adult education is on a voluntary basis, so having completed required course work or having fulfilled a specific need by taking one course, there may be no impetus for adults to continue their formal educations. Each factor concerning the attracting and retaining of adult students creates a need for the use of marketing skills by continuing education administrators.

Marketing has the potential to assist continuing education administrators in their quest for a better understanding of the adult student market. Marketing involves much more than advertising and selling a product to a consumer. Marketing is "both a science and an art which utilizes reliable principles to obtain the results desired." (Phillips and Duncan, 1964: 9). Marketing can provide the organization with the tools and techniques to make it responsive to the needs of its clientele. This new and responsive idea represents the modern"marketing concept" which is the antithesis of the antiquated distasteful "sales" orientation.

In the early 1920's industry devised a system of mass production that produced goods at a faster rate than could be assimilated by the consumers. Astute businessmen became

aware of the need for an effective way to sell their products. This was the era of the sales manager, and the high powered, skillful manipulator of consumer opinion, personal salesmanship and aggressive advertising. Anything could be sold with enough effort and expense.

This type of sales effort was initially very successful, but by the end of the 1930's it began to collapse. The "sales" orientation approach was highly criticized because of high-pressure tactics and misleading and false advertising. Even today, marketing is still marred by the image of the Yankee peddler who is regarded as an uneducated, glad-handed individual of questionable moral fiber. By 1940, the business community began to realize the need for a new system of marketing, but it was not until the post-World War II period that the "consumer oriented" concept to marketing was finally recognized. This new concept was based upon the consumer's point of view and products were designed to satisfy a particular consumer need. From this "consumer orientation" of production and selling evolved the "marketing concept."

The "marketing concept" is not new to the field of continuing education. Leading writers in the field of continuing education such as Malcolm Knowles, Cyril O. Houle, Josephine Rudd, Olive A. Hall, Clark Kerr, Samuel B. Gould, and Fred H. Harrington are constantly reiterating the fact that educators must consider the needs of the

prospective students in order to plan appropriate educational programs. Needs assessment is considered to be a very important step in the program planning process. Yet many educators skip this significant step. Knowles stated in his book, The Modern Practice of Adult Education (1974: 79), that public school and adult education programs that are limping along have been designed on the basis of what administrators think people ought to learn. There probably was no input from citizen's advisory councils and there is no assessing of needs and interests. On the other hand, vibrant, expanding programs have active advisory councils with continual evaluation of the needs and interest of individual and institutions they serve.

Dunsworth (1976) in "Problems and Issues Facing Higher Education" reiterated the importance of accommodating student needs. He believed that higher education personnel were recognizing that the growing edge of higher education was in the area of continuing education and public service. If institutions are to meet these challenges successfully, there must be effective means of identifying and evaluating the educational and service needs of the potential constituents.

Effective marketing techniques which incorporate the "marketing concept" in the modus operandi must be utilized by the continuing education adminstrator. There are many definitions of marketing; for purposes of this

study, Kotler's (1975) definition will be used:

> Marketing is the analysis, planning, implementation and control of carefully formulated programs designed to bring about voluntary exchanges of values with target markets for the purpose of achieving organizational objectives. (Kotler, 1975: 5.)

Marketing can be viewed as a managerial function which incorporates analysis, planning, implementation and control. Second, marketing is carefully planned and formulated, not just an ill-planned idea to obtain a desired outcome. Third, marketing brings about voluntary exchanges of values from the student in terms of money, time, effort and interest and from the institution in terms of facilities, equipment, time, expertise, interest and effort. Fourth, marketing means the selection and concentration of target markets that will produce the best response. Fifth, since marketing's purpose is to achieve organizational objectives, effective marketing must be specific in reaching the target objectives. Finally, marketing "utilizes and blends a set of tools called the marketing mix--product design, pricing, communication and distribution (Kotler, 1974: 7). These tools are referred to as the four P's in marketing (price, product, place, promotion). The effective continuing education administrator will appraise the selected audience, and will carefully vary the elements of the marketing mix to reach the client. Continuing education administrators must be involved in adapting the marketing mix so the program

will be acceptable to the client group. George and Buchanan (1974) define the marketing mix for continuing education as follows:

> The Product/Service Offering--The product/service offerings of university extension are commonly grouped in three categories--technical assistance, instruction and research. Usually these categories are related generically to the development of the whole man, the enhancement of societal improvements, and the betterment of man's environment . . . . The concept of the product/service being a means by which consumer needs have been fulfilled or a benefit derived cannot be over-emphasized . . . . The most challenging task in the product/service realm may be organizing for new offerings on a continuous basis.
>
> Promotion--The delivery of continuing education resources and services--involves at least a two-way flow of information. The clientele group and the university extension unit have to impart information to each other if a relationship is to exist. . . . functions to inform, educate and persuade and involves all the techniques of communication . . . . four major areas of promotion: personal selling, advertising, publicity, and sales promotion.
>
> Price--Continuing education has at least three significant sources of funds which support the service function. First tax dollars (federal and state) which are granted to public service. Second, funds derived from direct charges to clientele groups. Third, funds from private sources such as foundations, general contributions from various individuals, and the like.
>
> Place--The need to move out from the campus to the people was the prime reason for beginning the public service movement . . . . Three alternatives are common with respect to the place variable: (1) university facilities on campus or at branch locations; (2) client facilities; and (3) facilities such as community or public places, e.g. YMCA's, hotels, etc . . . . The marketing oriented manager will determine

> which alternative is most effective by interaction with client groups and by evaluation of the costs related to each alternative . . . . (George and Buchanan, 1974: 13-22.)

Continuing education seeks to serve three client groups--individuals, organizations, the community. The needs and interests of these client groups can be determined by means of a "needs assessment," "consumer analysis," "targeting the audience," or other program planning concept. Clues as to what individuals, organizations and the community ought to be learning can be obtained from individuals themselves, community leaders, elected or appointed public employees, educators, businessmen, industrial leaders, labor union personnel, civic leaders, etc. By gathering information through needs assessments, the continuing education administrators can develop and promote the right programs at the right place and at the right price.

The main thrust of marketing consultants in the past has been with demographic data when conducting a consumer analysis. Demographic data (such as age, income) can provide valuable assistance in determining such things as the place for educational programs and the price to charge the participants. However, these statistical data are of little value in developing and promoting programs that meet the needs and interests of client groups. Marketing researchers are not conducting consumer profiles beyond demographics.

Dichter (1958) developed the motivational research approach which applied the concepts and methods of clinical psychology to marketing. Koponen (1960) began to analyze the psychological need characteristic of purchasers by means of standardized personality tests. A new research concept known both as "psychographic" and "lifestyle" analysis has emerged from the blending of descriptive, qualitative and motivational research with objectivity of personality inventory. Psychographics and lifestyle analysis have become new concepts in consumer analysis. New ideas in marketing research and techniques, when coupled with recent research technology, make possible programs for determining the desires of people to be served (Wells, 1974; 4). Psychographics and lifestyle analysis provide the researcher with valuable data on the interests, opinions and attitudes of the consumer. This is more than demographic analyses can provide. If the continuing education administrators could know the attitudes and opinions of adults about social, political, legal and economic issues and know their leisure-time interests, then they would have data to support meaningful decisions in planning and promoting adult education programs and activities.

There is considerable disagreement as to what psychographics and lifestyle analysis are. Many researchers separate psychographics from lifestyle research and treat each one independently. Dorney (1971) defines the terms

as follows:

> . . . reserving the term "psychographics" for measures that are truly "mental"--attitudes, beliefs, opinions, personality traits, etc. The analysis and classification of activity of behavioral reports from the consumer which are frequently classified as "psychographic," should be given their own distinct term, such as "life-style." (Dorney, 1971: 200-201.)

In this study, these two terms, psychographics and lifestyle analysis, are treated independently. Psychographics deal with attitudes, interests and opinions while lifestyle analysis is concerned with activities.

I. STATEMENT OF THE PROBLEM

One difficult task that continuing and adult education administrators face is determining what programs to offer. Continuing education administrators make a significant investment in terms of human and material resources when they develop and offer a course. If a course fails to meet the educational needs of the targeted population or if an insufficient number of students enroll in a course (which results in a course being cancelled) then there is no return from this investment.

Market research can provide continuing and adult education with a model that can be used to determine the actual needs and interests of the consumer. By the careful manipulation of each element of the marketing mix, the university or college is able to exchange values with the adult students to insure a successful quality product.

Psychographics and lifestyle analysis have provided the marketing researcher with valuable consumer information about the usage of a product or service. Marketing researchers believe that psychographics and lifestyle analysis provide useful insights into markets within consumer groups. This insight into consumer groups is referred to as market segmentation. Market segmentation permits the researcher to identify the heavy users, light and nonusers of a product or service. Kotler (1975) explains that there is a second step to marketing definition. Once the actual, potential and non-market for some product or service have been defined, a second step is necessary. This step is called

> market segmentation and consists of dividing the market into fairly homogeneous parts where any part may conceivably be selected as a market target to be reached with a distinct marketing mix. (Kotler, 1975: 99.)

The administrators of continuing education may choose to define these three markets in the following manner: The actual market is all those persons who are interested and have indicated on the market analysis survey an interest in participating in part-time courses of study at the institution. The potential market is all persons within a 25 mile radius of the institution. The non-market is that group participating in part-time courses of study at some other institution. After defining the institution's market, the administrator must segment the actual market so appropriate learning experiences can be developed and the most effective

promotional activities conducted to attract this targeted audience.

II. PURPOSE

This study investigated the potential of psychographics and lifestyle analysis for segmenting the actual market in continuing education so that program-and promotion-related decisions can be made more effectively.

III. THE GUIDING QUESTION

One basic question that needs to be addressed of psychographic and lifestyle analysis is whether or not the technique has the power to distinguish among adult learners currently enrolled in different types of learning activities. To be more specific, "Do psychographic and lifestyle data disclose that current participants in different learning activities have different learning interests, opinions on social and educational issues, motivations for participation, feelings of job satisfaction, leisure activities, television viewing habits, newspaper and magazine reading habits, radio listening habits, and organizational memberships?"

IV. ASSUMPTIONS

The following assumptions, although of a somewhat basic nature, are considered germane to the study:

1. Market research is applicable to education.

2. Although the process is generalizable, the study has to be unique to each market to be usable.

3. In psychographic and lifestyle research there is flexibility in designing the questionnaire to fit the market under study.

V. DEFINITIONS

Some phrases and words used in this study require definition.

Lifestyle analysis - "The analysis and classification of activity or behavioral reports from the consumer . . . ." (Dorney, 1971: 201.)

Marketing - "Marketing is the analysis, planning, implementation, and control of carefully formulated programs designed to bring about voluntary exchanges of values with target markets for the purpose of achieving organizational objectives." (Kotler, 1975: 5.)

Marketing mix - "Marketing mix consists of product/service offering, pricing, communication (promotion) and distribution (place)." (Kotler, 1975: 5.)

Market segmentation - "Market segmentation consists

of dividing the market into fairly homogeneous parts where any part may conceivably be selected as a market target to be reached with a distinct marketing mix." (Kotler, 1975: 99.)

Non-credit - ". . . non-credit continuing education programs are usually focused on specific personal and group problems, many are frequently interdisciplinary in approach and seldom fall with the traditional subject matter categories found in classification systems used for credit programs." (Lord, 1972: 397.)

Psychographics - ". . . for measures that are truly 'mental'--attitudes, beliefs, opinions and personality traits, etc." (Dorney, 1971: 200.)

VI. LIMITATIONS AND DELIMITATIONS

The limitations and delimitations of the study are as follows:

1. Non-credit courses that could not be categorized under one of the five learning groups were not included in the study.

2. Completion of the questionnaire was voluntary. Subjects could choose not to complete it.

3. The findings of the study were confined to the marketing decisions that relate only to the actual market.

4. The survey was delimited to those adult students

enrolled in non-credit courses at The University of Tennessee, Knoxville, during the Winter Quarter of 1978.

VII. METHODOLOGY

The following procedures were used:

1. Subjects for this study were adult students who were enrolled in non-credit courses in the Department of Non-Credit Programs, Division of Continuing Education at The University of Tennessee, Knoxville, during the Winter Quarter of 1978.

2. The subjects were selected based upon the type of non-credit courses in which they enrolled. There were five types of courses into which the majority of the course offerings were easily classified. The course classifications were as follows: Personal Development, Home and Family, Job-Related Subjects and Skills, Hobbies and Recreation, and Decorative Arts and Crafts.

3. In selecting the specific courses the major criterion was the extent to which a course was a pure representation of the one of the aforementioned five types. Selection of courses was based upon a stratified random sample and course description. Selection of courses included in the study was accomplished with input from the Director of Non-Credit Programs who planned the schedule of offerings and was familiar with the content of each course.

4. The research instrument in this study was a questionnaire. The instrument yielded scores on lifestyle and psychographic dimensions: Opinions, Interests, Motivation for Participation, Job Satisfaction, and Activities. The Activities dimension was composed of several sections: Activities in the Past Year, Television Viewing Habits, Newspaper Preferences, Organizational Memberships, Magazine Preferences, and Radio Station Preferences. There were also demographic items. Items that pertained to the market under study were specifically written for the Interests and Activities section. Since the market under investigation was educational, the Interest items pertained to learning interests.

5. A limited pilot study was conducted during the Fall Quarter, 1977, to test the questionnaire.

6. The instrument was administered by the instructors and completed in classes. After the instruments had been completed by the adult students, the instructor collected and returned them to the Department of Non-Credit Programs. If an instructor preferred that the instrument not be administered in class, it was mailed to a student's home address and the student was asked to return the document in a pre-addressed, stamped envelope to the Department.

7. Group membership was the independent variable. Responses to the items served as dependent variables. The overall psychographic and lifestyle profile was composed of

ten distinct dimensions. The five learning groups were composed of each of the ten psychographic and lifestyle dimensions separately rather than as a whole. Discriminant analysis was conducted on each of the following sections: Opinions, Interests, Motivation for Participation, Activities in the Past Year, Television Viewing Habits, Newspaper Preferences, Job Satisfaction, and Demographic scores. A chi-square analysis was conducted on Radio Station Preferences, first page of the newspaper read, marital status and zip code. The level of significance for all statistical tests was set at $p<.10$.

VIII. ORGANIZATION OF THE STUDY

This study is divided into five chapters. Chapter I contains the introduction, purpose, statement of the problem, the guiding question, assumptions, limitations and delimitations, definitions, methodology, and organization of the study.

Chapter II contains the review of related literature on educational and marketing research.

Chapter III discusses the methodology of the study; the subjects, instruments, procedure and data analysis.

Chapter IV presents analyses of the results of the opinion, interests, motivation for participation, job satisfaction, activities in the past year, organizational membership, television viewing habits, magazine preferences,

newspaper preferences, radio station preference and demographic research.

Chapter V contains the summary, findings, conclusions and recommendations.

CHAPTER II

REVIEW OF LITERATURE

I. EDUCATIONAL RESEARCH ON CONTINUING EDUCATION LEARNERS

A Demographic Portrait

A substantial portion of educational research conducted on the continuing education learner can be classified as market research. Studies can be cited that draw a demographic profile of the continuing education learner to distinguish between participants and non-participants, and to assess differences among continuing education learners. Theoretical and practical studies have contributed to understanding of client groups that continuing education administrators are attempting to serve.

One of the most comprehensive and frequently cited research projects into the nature of adult education was conducted by the National Opinion Research Center and sponsored by the Carnegie Commission of New York. The results of the study using a national sample of adults were presented by Johnstone and Rivera (1965) in Volunteers for Learning. This study showed that three factors were persistent in distinguishing participants from non-participants: age, amount of formal schooling and geographical location.

1. Age: The average participant (median age 36.5) was younger than the average American adult (median age over 43). Over one-half of all participants were under 40 and nearly four in five were under 50. Also, rates of participation varied greatly by age group; the rates fell from a high of 29 percent for adults in the over twenties to a low of four percent for persons 70 and over.

2. Formal Schooling: The average participant is better educated than the average adult. The average participant has had 12.2 years of schooling compared with 11.5 years for the total sample. In addition, participants were also more likely to have white collar jobs as opposed to blue collar jobs and their median family incomes were almost $1,200.00 higher than the average of non-participants.

3. Geographical Location: Residents of large metropolitan areas were over-represented while those in small cities, towns and rural areas were under represented. Within the large urban areas, those living in suburbs or on the outskirts were over represented; those within the central city were not.

The following social profile can be construed from these data:

> The adult education participant is just as often a woman as a man, is typically under forty, has completed high school or more, enjoys an above-average income, works full-time and most often in a white-collar occupation, is married and has children, lives in an urbanized area but more

> likely in a suburb than a large city, and is found in all parts of the country, but more frequently in the West than in other regions. (Johnstone and Rivera, 1965: 6.)

Other research tends to substantiate the findings of the National Opinion Research Center Study concerning adult education. Capstick (1970) who studied relationships between enrollees characteristics and factors associated with enrollment in adult education courses in Tulsa, Oklahoma Public Schools found that there were about as many men as women with an age concentration in the early 30's; more were married with dependents and more were taking one course (for 70 percent this was the first course) but most intended to continue their participation. Relatives were the major source of encouragement. The participant's formal education consisted of high school or more, and on the average they belonged to at least one organization, usually religious. Most had lived in Tulsa five or more years and were employed full time.

Messer (1975) surveyed 400 adult students who were attending Phoenix College, Phoenix, Arizona, during the Fall Term, 1974, to gain insight into the characteristics and special needs of the 25 and over age group. Messer found that his subjects ranged in age from 25 to 50+ and that 44.8 percent were 35 or older. Most had previous college experience and were working toward an associate arts degree. The typical male was 27, married, employed and was

not receiving assistance. The majority (76.6 percent) of Messer's sample were part-time students.

Swinburne (1970) in his study of 704 males and 843 females determined the characteristics of adult part-time students in selected public community colleges. He found that as age increased there was a proportional decrease in participants. Over half of the participants were under 30 years of age. Approximately seven of every ten participants were married. Over 85 percent were registered for one or more courses. Those under 30 were enrolled in two or more courses at nearly twice the rate of students over 40.

Nearly two-thirds had completed some college work. Over half aspired to earn a baccalaureate degree or more. One in five planned to earn no more than an associate degree.

Over three of every four participants were employed. Of the employed, two of every three worked between 36 and 45 hours per week. Over half received financial help and other incentives from their employers. Five of every six were male. Nearly 40 percent of the females received encouragement but no financial aid. The median annual income of the participants was between $10,000.00 and $14,999.00.

The reason for attendance for more than 50 percent of the participants was to broaden their intellectual and cultural interests; another two out of five wished to

improve their abilities to think and reason. Over one-third (twice as many males as females) gave the reason for attending classes was to gain skills for a new job.

Mansfield found:

> . . . (1) younger adults participated as a greater rate than older students; (2) females were over-represented among enrollments as contrasted to males; (3) whites and non-whites participated at approximately equal rates; (4) adults with higher levels of formal education (12 years or more) participated at greater rates than adults with lower levels of education; (5) adults in more highly skilled occupations requiring lower levels of skill; and (6) urban residents participated at greater rates than rural residents. (Mansfield, 1976: 3344-A.)

Data on the student population at The University of Tennessee at Nashville Center during the Spring Quarter of 1969 were obtained for an accreditation self-study and reported in Continuing Education as a Service to a Major Metropolitan Community (1970: 80-98). The characteristics of the 1,318 students were found to be as follows: 65.3 percent male, 62.2 percent married, 72 percent between 18 and 35 years of age, 30.6 percent with reported incomes over $8,000.00 annually, 76.6 percent working 40 hours per week, and 33.1 percent of the student population with no previous college work.

The most comprehensive data on the characteristics of learners and would-be learners were compiled by the Commission on Non-Traditional Study chaired by Gould. This was the first major study since Johnstone and Rivera (1962) to gather information about adult students. The

Commission on Non-Traditional Study (1974) needed current data on the learning interests of adults on which to base their recommendations. Table II shows the demographic profile of learners and would-be learners obtained from the national sample of respondents.

Age and the level of schooling seem to be influential factors on the level of continuing education participation. These demographic indicators provide the continuing education administrator with information about adult students who enroll in continuing education courses. Messer (1975) indicated that adult students at Phoenix College ranged in age from 25 to 50 and had some college experience. Harris (1972), in his study of continuing education courses in a rural community college, found that age was the single best indicator of the courses adults from a rural environment would enroll in. He found that adults under 30 would elect educational activities (academic and vocational) that assist them in carrying out developmental tasks necessary in this age bracket. As participants grow older, there was a shift in interest to work learning for leisure (community service) activities.

Courtenay (1976), in a study of 200 Southern Baptist pastors, found that the levels of income and education were significant variables with respect to participation in continuing education activities. Pastors with higher levels of income and education would more likely participate in

TABLE II

DEMOGRAPHIC PROFILE OF ADULT EDUCATION, LEARNERS AND WOULD-BE LEARNERS, IN A STUDY CONDUCTED BY THE COMMISSION ON NON-TRADITIONAL STUDY

Characteristic	Percentage*	
	Learners	Would-Be Learners
Sex:		
Male	49	46
Female	51	54
Housewife	19	20
Non-housewife	29	30
Age:		
18-24	22	20
25-29	18	15
29-34	12	12
35-44	20	21
45-54	20	22
55-60	8	9
Race:		
White	90	88
Black	6	9
Marital Status:		
Single	18	14
Married	76	78
Widowed/divorced	5	7
Formal Schooling:		
1-8 years	5	10
9-11 years	12	18
12 years	38	38
Some postsecondary	21	15
4-year college graduate	21	13
Occupation:		
Unskilled/semiskilled	16	22
Skilled	18	15
Sales/clerical	20	18
Small business	7	7
Prof/large business	16	10

TABLE II (Continued)

Characteristic	Percentage* Learners	Would-Be Learners
Job Status:		
Full-time employed	57	55
Part-time employed	10	10
No job	31	33
Region:		
Northeast	22	24
Northcentral	27	28
South	30	33
West	21	16
Type of Community:		
Urban	81	78
Rural	19	22

*Percentages for each characteristic may not add to 100 percent because of nonresponses.

NOTE: From Adult Learning Interests and Experiences by A.C. Carp, R. Peterson, P. Roelfs, in K.P. Cross and J. Valley (eds.), Planning Non-Traditional Programs, pp. 15-16.

more non-Baptist agencies' programs. Also, Baptist pastors with higher incomes were more inclined to participate in a greater variety of programs with varied subject matter. Cooper (1975) found that senior adult participants at Oscar Rose Junior College in Midwest City, Oklahoma, were more highly educated, more independent, and had higher incomes than other senior adults in the general population.

London, Wenkert, and Hagstrom's (1963: 88) study indicated that the better educated participated in more associations than the less educated. The study revealed that the better educated students in adult education programs were more active in organizations and tended to have more experiences in their leisure lives. Their research indicated that the better educated tended to participate during leisure time in cultural, social, and sports activities. The less educated tended to center their lives around the home, the extended family, and passive activities. These lifestyle characteristics are important to this study in trying to develop an understanding of the actual market under investigation.

Summary of Demographics

Research indicates that people will tend to take continuing education courses that will serve their specific needs at that particular point in their life cycles. Young adults tend to take courses related to interests in home

and family living, personal development, and hobbies and recreation. Persons with higher levels of education tend to participate more often in continuing education activities at all age levels. Participation in adult education activities by older citizens is dependent upon the levels of formal education and family income. Thus, it seems that age, salary, and amount of education are strong indicators of participation in continuing education programs.

A Psychographic Portrait

When the psychological reasons why continuing education participants desire to learn are investigated, the research of Houle (1961) is very significant. Houle analyzed 22 in-depth interviews with participants. Three conceptions or basic orientations were found to be held about the purposes or values of continuing education. These three categories are:

1. Goal Oriented - those participants who use education as a means of accomplishing fairly well-defined objectives.

2. Activity Oriented - participants who take courses because they find in the learning situation a meaning which has no necessary connection with a content or accounted purposes of the activity.

3. Learning Oriented - those seeking knowledge for its own sake.

Houle emphasized that these are not absolute types i.e.

could describe them best with overlapping circles, but the central emphasis of each subgroup is discernable. These three basic orientations of continuing education learners, commonly referred to as Houle's typology, have served as a basis for subsequent theoretical research into motivational orientations of continuing education learners. In order to secure additional data on why adults continue their learning, Sheffield (1964) developed the Adult Learning Orientation Index which was administered to 453 adult conference participants in twenty conferences at eight universities in the United States. Factor analysis was used to identify five meaningful groupings among the respondents: (1) the learning orientation, (2) the sociability orientation, (3) the personal-goal orientation, (4) the societal-goal orientation, and (5) the need-fulfillment orientation.
In a test of Houle's typology of "Motivaltional Orientation," Boshier (1971) administered the Education Participation Scale (E.P.S.) to 233 randomly selected participants enrolled in continuing education courses in New Zealand to determine reasons why participants enrolled in University Extension adult education courses. Analysis of the data revealed four motivations. In summarized form, the four third order factors were: (1) goal-oriented environmental pressure; (2) future activity; (3) self versus other-centeredness; and (4) social contact.

In 1974, Morstain and Smart (1974), who replicated and

expanded upon Boshier's New Zealand study, used a sample of 648 adults taking continuing education courses at Glassboro State College during the 1972 fall semester. Six reasons or orientations for taking continuing education courses were indicated by the respondents: (1) social relationships; (2) external expectations; (3) social welfare; (4) professional advancement; (5) escape/stimulation; and (6) cognitive interest.

Burgess (1971) developed and designed a study to explore educational orientations as postulated by Houle. Burgess's study tested the hypothesis "that reasons chosen by men and women for participating in educational activities will factor into eight groups." (Burgess, 1971: 3.) Burgess authored the "Reason for Educational Participation" scale and administered it to 1,098 adult students attending 54 different courses, classes, or activities in the St. Louis area. The seven motivation factors which emerged from the study were identified as: Factor I: The Desire to Know; Factor II: The Desire to Reach a Personal Goal; Factor III: The Desire to Reach a Social Goal; Factor IV: The Desire to Reach a Religious Goal; Factor V: The Desire to Take Part in Social Activity; Factor VI: The Desire to Escape; and Factor VII: The Desire to Comply with Formal Requirements.

Research on the learning orientations of continuing education learners was conducted by Dickinson and Clark

(1975) who explored "the nature of the relationship between learning orientations and participation by adults in learning activities." (Dickinson and Clark, 1975:13.)

Sheffield's Continuing Learning Index was administered to over 250 registered female nurses in the Greater Vancouver area of British Columbia. Seven learning orientation factors consistent with Houle's typology were identified. The interpretable factors were learning orientation, sociability, societal orientation, interactive orientation, and relief from boredom and frustration.

Summary of Psychographic Profile

Table III summarizes the findings of research on the orientations or motivations of continuing education learners.

Despite the small size Houle's sample (22 learners), it has served as a beginning point for research into motivational orientations of continuing education learners. Boshier (1976) stated that "most researchers produce seven or eight factors and then argue their findings 'confirm,' 'sharpen,' or 'support' the Houle typology." (1976: 41.) The previously reviewed research does support Houle's typology.

A Lifestyle Portrait

From demographic data a researcher is able to formulate a sort of profile of the "typical" adult education participant. This information can be of assistance to the

TABLE III

SUMMARY OF FACTORS IDENTIFIED IN STUDIES OF LEARNING ORIENTATION

Study	Houle Typology		
	Goal Orientation	Activity Orientation	Learning Orientation
A. Continuing Learning Orientation Index (C.L.O.I.)			
1. Sheffield	Personal-goal Societal-goal	Need fulfillment Sociability	Learning
2. Dickinson and Clark	Occupational Professional Societal	Sociability Relief from boredom and frustration Interactive	Learning
B. Education Participation Scale (E.P.S.)			
3. Boshier	Other-directed advancement External expectations Professional advancement Social Welfare	Social contact Self. vs. other-centeredness Social relationship Escape/stimulation	Educational preparation Cognitive interest
C. Reasons for Educational Participation (R.E.P.)			
4. Burgess	Personal-goal	Social activity	Desire to know

TABLE III (Continued)

Study	Houle Typology		
	Goal Orientation	Activity Orientation	Learning Orientation
	Social-goal Religious-goal Meet formal requirements	Escape	

NOTE: From Learning Orientations and Participation in Self-Education and Continuing Education by G. Dickinson and K.M. Clark. Adult Education, 1975, 26 (1), 7.

researcher as he describes the characteristics of persons who participate in the different types of courses. Psychographic and lifestyle research that is supplemented by demographic data will enable the researcher to draw a complete profile of a market.

London and Wenkert (1969) studied lifestyle characteristics of a matched sample of men aged 21 to 59 and living in middle-rental tracts of Oakland, California, to determine their levels of adult education participation. By interviewing 599 adults, the authors were able to identify adult education participants from non-participants by asking them questions on how they utilized their leisure time. The authors identified seven factors from the participation patterns of the two groups: organizational membership; cultural, educational and professional activities; organizational participation; social-drinking pattern; extended family neighborhood, play activities, friendship activities with work colleagues; and home-oriented, neighborhood-oriented pursuits. London and Wenkert concluded that participation in adult education was positively associated with certain leisure styles: membership and participation in formal organizations (with a notable exception of labor unions), minimal participation in a wide variety of diverse leisure activities, frequent participation in cultural events, in social relations outside the immediate family, work situation, and neighborhood. They found that passive

engagement in sports and the mass media tended to be negatively associated with adult education participation.

According to Johnstone and Rivera (1965), the most relevant judgment in their study pertained to the type of subject matter studied. Two researching procedures were used: "first, the name of the course was entered, and then it was classified by the respondent into one of the subject categories. . ."(1965:41.) The reason that the participants classified the courses was that some of the categories reflected the function of the activity for the participant and not the substantive content of the course. Johnstone and Rivera stated that it was not possible to classify courses on the basis of course titles alone.

Classification of courses finally became a two-staged system of identification. First, the courses were described by general category. The nine general categories were: Job-Related Subjects and Skills; Hobbies and Recreation; General Education; Religion, Morals and Ethics; Home and Family Life subjects; Personal Development courses; Current Events, Public Affairs and Citizenship; Agriculture; and Miscellaneous Subject Matter. In the second stage, the courses were subdivided into sub-categories of these general categories. Personal Development courses were sub-divided into the following sub-categories: physical fitness; speed reading; Dale Carnegie courses or other leadership training courses; speech or public speaking; and all other personal development subjects (See Appendix A).

Rinella (1977) sought to determine whether or not psychographic/lifestyle analysis could distinguish among the different types of learning activities. Each non-credit course offered by the Conferences and Institutes Division at the University of Maryland during the Winter 1976, term was classified by type. The basis for the classification was research conducted by Johnstone and Rivera (1965) which categorized adult education courses into nine broad areas (See Appendix A). Rinella classified the courses into the following four areas: Personal Development (PD); Home and Family Life (H&F); Job-Related Subjects and Skills (JR); and Hobbies and Recreation (H&R). The remainder of the adult education courses offered at the University of Maryland were in arts and crafts. In Johnstone and Rivera's taxonomy of courses the Hobbies and Recreation area had ten sub-categories, one of the sub-categories being Decorative Arts and Crafts (DA). Since a large number of these courses were offered by the Conferences and Institutes Division, they were classified, for purpose of Rinella's study, under the specific sub-category of Decorative Arts and Crafts. Based on this classification, there were five types of courses offered by the Conferences and Institutes Division at the University of Maryland. Once the courses were classified by type, courses were selected by the Director of Conferences and Institutes and Rinella for inclusion in the study. In selecting the specific courses the major criterion

was the extent to which the courses were judged to be a pure representation of one of the five types of courses. The course descriptions were analyzed to make this judgment. If a course description did not meet the criteria for one of the five types, then it was omitted from consideration.

Rinella studied 340 adults participating in non-credit courses at the University of Maryland to explore the potential of psychographic/lifestyle market research for segmenting the adult education market. The study sought to determine whether or not psychographic/lifestyle analysis could distinguish among the five different types of learning activities. The psychographic/lifestyle inventory was designed specifically for Rinella's study from a number of established scales. The instrument was designed with ten psychographic/lifestyle components: Opinions, Interests, Motivation for Participation, Job Satisfaction, Activities in the Past Year, Television Viewing Habits, Newspaper Preferences, Organizational Preferences, Magazine Preferences and Radio Station Preferences. Included in the inventory were ten demographic items. Rinella's study revealed that since psychographic/lifestyle research was able to discriminate learning groups, it would have potential for segmenting adult continuing education markets which would be an important asset to continuing education administrators.

II. MARKET RESEARCH

Neither the meaning nor the role of marketing is well defined for continuing education administrators. After Buchanan and Barksdale (1974) surveyed continuing education administrators at 90 of the 99 member institutions of the National Association of State Universities and Land-Grant Colleges, they reported that service units of the participating institutions were engaged in marketing. They offered a variety of services to the general public--conferences, workshops, seminars, non-credit classes, cultural programs, area studies, etc. Many communication methods were being used to inform the public--direct mailing, magazines, newspapers, personal visitations, radio, television, posters, word-of-mouth, etc., that newspaper advertising was the most prevalent communication method. Many service programs were offered on and off campus for the greatest public service.

Thus, all the requirements generally included in the definition of marketing function--two parties interested in the exchange of information or products, communication of this interest, and each party possessing something of value desired by the other--were being met by most schools responding to this survey.

These same continuing education administrators, when asked to express their views of marketing techniques, equated with selling, per se.

The marketing techniques in this current study relate

to psychographic and lifestyle segmentation. The essence of psychographic and lifestyle research is the consumer market.

A general psychographic segmentation study was conducted for the Newspaper Advertising Bureau (1973). A national sample of 4,136 men and women in 2,481 households filled out a 300 item check-list questionnaire to measure their personalities, personal aspirations, and social roles. One purpose of the study was to determine if the respondents could be grouped into mutually exclusive cells with each cell having a different psychographic profile. Factor analysis was used to group the respondents, and eight different segmented markets were identified for each sex. The female segmented markets were identified as: the conformist; the puritan; the drudge; the free spender; the natural contented woman; the indulger; the striving suburbanite; and the career seeker. The male psychographic groups were: the quiet family man; the traditionalist; the discontented man; the ethical highbrow; the pleasure-oriented man; the achiever; the he-man; and the sophisticated man.

Young (1973) sought to define the potential market for a specific product by conducting psychographic research on Ford Pinto consumers. Young indicated that the introductory Pinto advertising depicted the car as "carefree, small and romantic." The strategy was "to sell the small car prospects; to compete against imported small cars; to

say that the car was carefree, trouble free, beautifully styled, and economical" (p. 15). After the Pinto was introduced to the consumer, psychographic research revealed that potential Pinto buyers were not romantically attached to cars and driving as first imaged. These potential Ford Pinto consumers endorsed statements like "I wish I could depend on my car more," "I am more practical in car selection," "A car can offer me a chance to tinker with machinery," and "The only function for a car is transportation." The potential consumer rejected statements like "Taking care of a car is too much trouble." After analyzing the psychographic data, the advertising agency was able to market the Ford Pinto as

> The epitome of function exemplifying basic economic transportation, trading on Ford's heritage of the Model A. Consequently, today Pinto is the largest selling compact, outselling Volkswagen by a sizeable margin. (Young, 1975: 15.)

Young's study exemplifies the role of psychographic and lifestyle research in the promotion to an identifiable potential market.

Wilson (1966) administered a questionnaire to 600 women who were members of a regular commercial-mail panel maintained by the Home Testing Institute, Manhassett, New York, to study their patterns of daily behavior, interests, and opinions. The questionnaire was composed of 157 psychographic and lifestyle items. There were general demographic items that related to the purchasing habits of

these housewives with various classes of products (lipstick, kitchen floor wax, wine, kitchen and bathroom cleansers, etc.), a media exposure (Esquire, National Geographic, Reader's Digest, Business Week, etc.). Wilson observed that psychographic and lifestyle data along with demographic data provide marketing management with significant information on the purchasing behavior patterns of homemakers.

Wells and Tigert (1971) mailed 1,000 questionnaires to homemaker members of the Market Fact's mail panel in order to draw a portrait of consumers of eye make-up and shortening. The questionnaire contained 300 activity, interest and opinion statements in addition to the usual demographic items and questions on a variety of new products. The statements covered a variety of topics, including: day-to-day activities, the arts, cosmetics, homemaking and clothes, interest in media, and opinions on various matters of general interest. Wells and Tigert found that the use of this type of research provided "portraits of target groups in the advertising and marketing of products." (1971: 30.) discussing the future of psychographics, Wells and Tigert quote Benson, Chairman of Ogilvy and Mather, who stated:

> There is no more similarity between the consumer of New England and the consumer in Old England and the consumer in New Orleans. Increasingly, markets will need to be segmented more on psychological, social and attitudinal criteria than on traditional basis of geography and demography. (Wells and Tigert, 1971: 34.)

Goldberg (1976) examined the procedures for selecting and matching product and consumer types in an effort to gain a better understanding of the role of personality as a predictor of purchase behavior. Goldberg's sample consisted of 192 English-speaking Montreal women who were members of nine voluntary associations (churches, hospital auxillaries, etc.). The women in this study over-represented the middle and upper-middle socio-economic strata because the group would most likely be interested and able to purchase the variety of new products. Goldberg concluded that it was possible to predict specific patterns of consumer preferences and even perhaps to predict actual behavior with regard to specific product choices.

In an attempt to discover the relationship between demographics and psychographics/lifestyle characteristics in explaining a consumer's purchase of railroad services, Mayo (1975) administered a questionnaire to travelers on board a Penn Central passenger train between Harrisburg and Philadelphia, Pennsylvania. Results of Mayo's study suggest:

> that the circumstances under which psychographics are most likely to contribute to a better understanding of buyer behavior differ from those of demographics. Specifically, there is some empirical and theoretical support for the notion that demographics may be more useful in explaining product class demand while psychographics may be more useful in explaining the demand for various forms of the product class. (Mayo, 1975: 4723-A.)

The goal of psychographics and lifestyle analysis is to extract an efficient market segmentation scheme from the

data. From the aforementioned research review it seems that it is possible for decision makers to examine data to enrich and extend their profiles of consumers. This research can assist the decision maker in communicating to the targeted group the existence of a product that possesses the characteristics they require. Since the purpose of this study is to use psychographics and lifestyle data to segment the participants of continuing education according to the type of non-credit courses in which they enroll, then the previously mentioned research provides a basis for a positive and useful study.

There are many other studies available in addition to those reported above. From all of them one can conclude that psychographic data has and can provide rich, descriptive, detail that could not have been inferred from demographics.

CHAPTER III

METHODOLOGY

I. INTRODUCTION

The primary purpose of the research undertaken in this study was to explore the potential of psychographic and lifestyle market research to segment an adult continuing education market. This study was a replication of Rinella's (1977) study with adaptations to make it applicable to the Knoxville area. This chapter discusses the methods used in collecting information to meet the objective of the research.

II. LIBRARY RESEARCH

A review of literature was conducted for this study with the purpose of supplementing the survey findings of educational and market research in continuing education and psychographic and lifestyle analyses that are of value to continuing education administrators in developing a profile of adult students in non-credit courses. Materials reviewed in this study were found mainly in periodicals, books, and special publications.

A Datrix survey of doctoral dissertations abstracted by University microfilm and a computer search of ERIC files

were reviewed to identify the latest research and publications that would be of value. Special materials that were published or sponsored by the American Marketing Association, National University Extension Association, Carnegie Commission on Higher Education, American Newspaper Market, Incorporated, The American Research Bureau, Adult Education Association and the Newspaper Advertising Bureau, Incorporated, proved to be invaluable. Monographs and documents published in 1961 or afterwards and dissertations completed in 1971 or afterwards contributed additional data for this research.

Library research was conducted to study the various types of continuing education participants, the theory of psychographics, and methods of lifestyle analysis.

III. DEVELOPMENT OF THE RESEARCH INSTRUMENT

The research instrument was an adaptation of a questionnaire developed by Rinella (1977) for an exploratory study of the utility of psychographic and lifestyle market research for making program--and promotion--related decisions in adult continuing education at the University of Maryland. According to Rinella, the research instrument has face validity and has the power to discriminate among learning groups (1977: 3). Rinella's questionnaire was utilized in this study with several modifications that permitted the research instrument to be tailored to The University of Tennessee, Knoxville, market area. The research instrument used in this study is in Appendix B.

The questionnaire was modeled closely in format after those used in previous studies on market research. One of the principal advantages of psychographic and lifestyle research is the flexibility afforded in designing the research instrument. This permits the researcher to tailor the questionnaire closely to the market under study (Wells, 1975: 23).

Rinella suggested that two modifications be made in his instrument for local use. The first modification was to list the top radio stations in the local area, so that the participants could indicate their station preferences. This was done; the radio stations were located within the general listing area of all students. The second modification in the instrument concerned the newspaper preference items. Rinella suggested that the adult learner should indicate the specific section of the newspaper that he/she reads after reading the general news on page one. These were the only modifications made in the instrument.

The questionnaire yielded 66 scores on five psychographic and lifestyle dimensions which were divided as follows: Opinions (eight scores), Interest (eight scores), Motivation for Participation (five scores), Job Satisfaction (one score), and Activities (44 scores).

The Activities dimension was composed of several subdivisions: Activities in the Past Year (six scores), Television Viewing Habits (eleven scores), Newspaper Preferences

(four scores), Organizational Membership (nine scores), Magazine Preferences (thirteen scores), and Radio Station Preference (one score). There were also ten demographic items.

The research instruments used by Rinella and by this researcher were designed for the local markets under investigation. Items for Rinella's instrument were drawn from the following sources:

1. Wells Activity-Interest-Opinion Item Library (W. W. Wells, 1975).

2. Education Participation Scale (Boshier, 1971).

3. Matched Sample Survey (London, Wenkert, Hagstrom, 1963).

4. Traditional Family Living Ideology Scale (Levinson and Huffman, 1955).

5. Index of Job Satisfaction (Brayfield and Roth, 1951).

6. Radicalism - Conservatism Scale (Comrey and Newmeyer, 1965).

In addition to items drawn from these scales, other items were specifically written for the Interest and Activities section to pertain to the market under study. For example, the local radio stations in the Knoxville area were added. Since the market under investigation was educational, the Interest items pertained to learning interests.

In consumer analysis, demographic data provide a

description of the adults who participate in part-time continuing education programs. The demographic characteristics in this study are clustered into three general classes:

1. Personal characteristics--sex, age, marital status, number of children, race and religion.

2. Socio-Economic characteristics--occupation, family income, and education.

3. Ecological characteristics--zip code.

Well's Activity-Interest-Opinion Item Library (1975), developed and compiled at the University of Chicago, was the basis for formulating questions in the psychographic section of the questionnaire and was designed to incorporate opinion and interest items. These items are related to opinions that measure attitudes toward government, family structure, pollution, business, law and order, minorities and social welfare, women's rights, and teaching approach. A controlling factor in selecting opinion items was the initial analysis of the community under investigation which determined the concerns of adults or any issues that they felt might directly affect their lives. For example, if an institution was located near a proposed chemical plant site, then opinion items ought to be included on pollution and its effect on the environment. No matter where an institution is located, there are numerous unique issues about which the residents of the community have opinions.

Incorporated within the research instrument are opinion questions from the Comrey and Newmeyer (1965) study on radicalism and conservatism. These questions measure the political and social opinions which have a direct effect on the lives of adult students. According to Comrey and Newmeyer, radicalism and conservatism factors have a substantial correlation between the social and political attitudes of persons under investigation.

Questions regarding the "traditional family ideology" were taken from the Levinson and Huffman (1955) study and incorporated into the opinion section of the study. Sex roles and discipline in child rearing that relate to the various aspects of the family system were investigated in determining the concerns of adult students. Levinson and Huffman realized that the "Traditional Family Ideology" scale measured an individual's way of thinking about a set of social issues.

A complete set of questions from Boshier's (1971) study was inserted into the research instrument to learn about the adult education market in order to determine the specific motivations of adult students. Boshier's study revealed that "motivation for participation" was a key factor in segmenting the participants in adult continuing education.

Job satisfaction items were included in the questionnaire to determine the extent to which the overall market

or segments of the market were satisfied with their jobs. Questions were taken from Brayfield's and Roth's (1951) study to obtain an expression of an individual's attitude toward work. The individual items on job satisfaction have "face" validity and a reliability coefficient of 77 percent according to Brayfield and Roth (1951: 310).

The last sections of the psychographic and lifestyle questionnaire were items concerned with the activities of the actual market under study. The "Activities in the Past Year" and the "Organizational Membership" items were taken from the London, Wenkert and Hagstrom (1963) study of adult education. These two areas of leisure life--non-organizational and organizational--are related to the participation of adult students in continuing education activities.

The "Activities in the Past Year" section was designed to obtain the scope of minimal participation by the adult student in leisure-time activities on a yearly basis. London, et al. (1963: 90) observed that the higher the education level, the higher was the participation level in leisure activities. The reverse of this was true in persons with less than twelve years of school.

To measure how adult students spent their work and leisure time, London, et al. (1963) included questions on preferences for magazine and newspaper readership, television viewership, and radio listenership. Items for the newspaper, television and radio section of the questionnaire

were constructed on the basis of ratings in the Knoxville, Tennessee, area conducted by the American Research Bureau, Incorporated (ARBITRON, 1977), American Newspaper Markets, Incorporated (1977), and Axion Market Research Bureau, Incorporated (1975). These data provided a way to understand adult students in the mass communications process in live, real, and observable terms.

Some items were grouped into subscales. Factor analysis was used to identify items and scores. The instrument contained 189 psychographic and lifestyle items that yielded 66 scores. Each question represents an item in the instrument which can be grouped as a subscale or stand alone in scoring the instrument. (See Appendix C.)

IV. PILOT STUDY ANALYSIS

After Rinella developed the research instrument, he pretested the instrument in 1975 at Motlow State Community College, Tullahoma, Tennessee, to determine the length of time needed to complete the questionnaire and to clarify the instructions and items. It took approximately 20 minutes to complete the questionnaire. As a result of suggestions, Rinella modified parts of the instrument.

Rinella employed the questionnaire in his dissertation at the University of Maryland, College Park, Maryland. The instrument has "face" validity and has the power to discriminate among learning groups. The statistical

analysis revealed that significant differences did exist among the five learning groups on psychographic/lifestyle dimensions.

A limited pilot study was conducted during the Fall Quarter, 1977, at The University of Tennessee, Knoxville, to determine the length of time required to complete the modified questionnaire and to clarify the instructions and items. It took approximately 20 minutes to complete the questionnaire.

Two additional modifications were made in the research instrument. Pilot study results indicated that the West Side Story, a weekly newspaper in West Knoxville, was not an identifiable newspaper based upon adult student responses. The Daily Beacon was a more recognizable newspaper with which adult students in the Knoxville market area could identify. The second modification that this sample suggested was to prepare a list of AM and FM radio stations in the Knoxville market area instead of a list of five AM radio stations.

The pilot study analysis provided a profile of one of the five learning groups. Adult students participating in Personal Development courses at The University of Tennessee, Knoxville, during the Fall Quarter, 1977, were liberal in their opinions about pollution and women's rights. The adult students were more interested in knowing how to manage their money better and learning auto maintenance, and

less interested in auto racing and snow skiing. Cognitive interest and professional advancement were of little significance in motivating the students to participate in Personal Development courses.

In the job satisfaction section of the questionnaire the adult students indicated their satisfaction with their work. With respect to the "Activities Engaged in During the Past Year," these same adult students reported that they entertained in their homes and attended sporting events. The television viewing habits of the sample students indicated a preference for situation comedies. News magazines were the preference of the students in that medium. The continuing education adult students indicated a regular reading preference for the Knoxville News Sentinel. After the adult students had read the General News on page one, they read the sports and women's society pages. The radio station preference of the group was WNOX-AM. The pilot study analysis revealed that the adult students preferred membership in "Business and Professional Organizations."

The research instrument for the pilot study conducted at The University of Tennessee, Knoxville, has "face"validity and the power to discriminate among the learning groups.

V. SUBJECTS SURVEYED

Five hundred adult students enrolled in non-credit courses in the Department of Non-Credit Programs, Division

of Continuing Education, at The University of Tennessee, Knoxville, Tennessee during the Winter Quarter of 1978 were subjects for the study. Only adult students enrolled in non-credit courses were selected because they were motivated to participate intrinsically rather than having to fulfill an institutional requirement for a certificate or degree. Subjects were selected based upon the type of non-credit courses in which they enrolled.

Persons who had completed the sample research instrument in another course, those who did not complete the questionnaire adequately, or those who chose not to participate voluntarily were excluded from the study. Usable responses as of March 15, 1978, numbered 369 for a percentage of 73.8 (See Table IV). Due to anonymity concerns, there was no feasible way to engage in follow-up.

VI. DATA GATHERING PROCEDURES

The non-credit courses in the time frame previously described were classified as to type, as follows: Personal Development, Home and Family, Job-Related Subject and Skills, Hobbies and Recreation, and Decorative Arts and Crafts. Thirty-five courses were selected from this breakdown for inclusion in the study (Table IV). In selecting the specific courses the major criterion was the extent to which the course was a pure representation of one of the aforementioned five types. Course selection was based upon a stratified

TABLE IV

COURSES FROM WHICH THE 369 STUDENTS INCLUDED IN THE STUDY WERE SELECTED AND THE NUMBER OF STUDENTS IN EACH COURSE

Course Type and Title	Students
Decorative Arts and Crafts	
Calligraphy	6
Interior Design, Expressing Your Personality Through	5
Photography, Better 35mm	33
Stained Glass	20
Total	64
Home and Family Life	
Antiques, Introduction to American	6
Auto Maintenance of Foreign Cars	14
Cooking: Chinese	6
Cooking: Practical Gourmet IV	7
Embroidery	7
Money Management, Personal	12
VW, Understanding Your	10
Total	62
Home and Recreation	
Aviation: Private Pilot's License	15
Belly Dancing, Beginning	17
Diving: Skin & Scuba	23
Flytying, Basic	18
Paddleball	2
Racquetball	9
Sailing, How To	7
Wine of America	5
Total	96
Job Related Skills and Subjects	
Anatomy Refresher	3
Clinical Laboratory Science & Tests, Introduction to	4

TABLE IV (Continued)

Course Type and Title	Students
Fund Raising I	9
Medical Terminology, Beginning	6
Principals of Management for Government Employees	3
Real Estate Law II	8
Real Estate Math	4
Real Estate Principles	26
Total	63
Personal Development	
Assertiveness Training	6
Communication Course: Human Relations Group	4
Communication Course: Life Planning	4
English Grammar & Composition	8
German II	3
How To Study	2
Rapid Reading	5
Slimnastics	37
Typewriting	15
Total	84
GRAND TOTAL	369

random sample and course descriptions (See Appendix D), and with input from the Director of Non-Credit Programs who planned the schedule of offerings and was familiar with the content of each course. The independent variable was group membership. A course was removed from consideration in the study if there was any question that the offering did not represent just one type of course.

The research instrument was printed on five different colors of paper, to enable to researcher to differentiate students in one type of course from another. A letter of instruction from the Director of Non-Credit Programs was given to each instructor along with a packet of instruments (See Appendix E). The instrument was administered by the instructor and completed in class. After the instrument had been completed by the subjects, the instructor collected the instruments and returned them to the Department of Non-Credit Programs.

VII. ANALYSIS OF DATA

Group membership was the independent variable; responses to the items on the instrument served as the dependent variable. Table V shows the overall research design.

Participants in the study were asked to respond to the Interest, Opinion, Motivation for Participation, and Job Satisfaction items on a six-part Likert type scale ranging from Strongly Disagree to Strongly Agree. On

TABLE V

RESEARCH DESIGN

Dimensions (Dependent Variables)	Types of Courses[a] (Independent Variables)				
	PD	H&F	JR	H&R	DA
Psychographics					
Opinions (8 scores)					
Interests (8 scores)					
Motivation for Participation (5 scores)					
Job Satisfaction (1 score)					
Lifestyle					
Activities in Past Year (6 scores)					
Television Viewing Habits (11 scores)					
Newspaper Preferences (4 scores)					
Organizational Memberships (9 scores)					
Magazine Preferences (13 scores)					
Radio Station Preferences (1 score)					
Demographic (10 scores)					

[a]Groups are coded as follows: (1) Personal Development (PD); (2) Home and Family (H&F); (3) Job-Related Subjects and Skills (JR); (4) Hobbies and Recreation (H&R); and Decorative Arts and Crafts (DA).

items in the Activities sections, the participants responded by indicating along a frequency continuum whether they have engaged or would engage in each activity.

Rinella (1977) used multivariate analysis to analyze the data. Rinella stated that the multivariate analysis was not the best statistical method to employ. Discriminant analysis was suggested as the proper statistical method to analyze data among and between groups.

The Statistical Package for the Social Sciences (SPSS) (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975) is a system of related computer programs designed to obtain an analysis of the social needs of subjects. The sub-program "DISCRIMINANT" was used to perform the discriminant analysis.

The overall psychographic and lifestyle profile was composed of ten dimensions. The five learning groups were compared to each of the ten psychographic and lifestyle dimensions separately rather than as a whole. This method of analysis permitted conclusions to be drawn about the groups with respect to each distinct and major component of the psychographic and lifestyle instrument.

Discriminant analysis was conducted on each of the following sections: opinions, interests, motivations for participation, activities in the past year, television viewing habits, newspaper preferences, organizational membership, magazine preferences, job satisfaction, and demographic scores (except for number of children and zip code).

A chi-square analysis was conducted on radio station preferences, number of children, zip code, and newspaper page read first. The level of significance for all statistical tests was at the .10 level. Cronbach's Alpha was used to estimate the reliability of responses.

CHAPTER IV

ANALYSIS OF THE RESULTS

I. INTRODUCTION

The research analyzed whether psychographics and lifestyle analysis has any power to distinguish among adult learners currently enrolled in different types of learning activities. A stratified random sample of 500 adult students enrolled in non-credit courses in the Department of Non-Credit Programs, Division of Continuing Education, at The University of Tennessee, Knoxville, during the Winter Quarter of 1978 comprised subjects of the study. Three hundred sixty-nine replies, or 73.8 percent of the original sample, were received.

Participants were asked to respond to the opinion, interest, motivation for participation, and job satisfaction items and subscales on a six-part, Likert-type scale ranging from strongly disagree to strongly agree. On items in the activities sections, the participants responded by indicating along a frequency continuum whether they have engaged or would engage in each particular activity. The five learning groups (independent variables) were compared to each of the ten psychographic and lifestyle dimensions (dependent variables) separately rather than as a whole.

The study results are presented in ten sections corresponding to the ten psychographic and lifestyle dimensions of the research instrument. Discriminant analysis was conducted on each of the following dimensions: opinions, interest, motivation for participation, activities in the past year, television viewing habits, magazine preferences, job satisfaction and demographic scores (age, family income, highest level of education attained, number of children). A chi-square analysis was conducted on radio station preferences, sex, marital status, religious affiliation, occupation, zip code, number of non-credit programs taken previously, and first page of newspaper read after the general news on page one. The level of significance used for all statistical tests was $p<.10$.

Factor analysis was conducted on the responses to interests and activities in the past-year items to structure a correlation matrix. A"varimax rotated factor matrix" analyzed the items. Then factor scores were generated to indicate the extent to which the adult students were enrolled for each of the orientations (factors). Factor scoring took into account the contribution (loading) made to each factor by each of the items.

Factor scoring indicates the extent to which an orientation or factor is associated with the interests and activities of the past year of the adult students. An interest or activities in the past year factor is the major

value which gives meaning or direction to the continuing learning act or process undertaken by the adult learner. A factor name is only a central theme of the factor.

Standardized discriminant function coefficients are presented. These represent the relative contribution of the variables to the respective function. A function is a combination of several variables. Group centroids are the mean discriminant scores for each group on the respective function. The classification of cases by percentage is presented. This indicates that the classification routine was able to identify only a percentage of these cases as members of the groups to which they actually belong. The responses to different parts of the questionnaire are given as they relate to each dimension and to the total sample.* (Computer data from the statistical analyses are in Appendix F.)

II. RELIABILITY OF RESEARCH INSTRUMENT

To determine the degree of consistency or agreement between two independently derived sets of scores, reliability tests were conducted on the research instrument.

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*The current study is basically a replication of a study by Rinella (1977). Rinella (1977) used multivariable analysis of variance to analyze the data in The University of Maryland study. A multivariate analysis of variance was also conducted on the data obtained in The University of Tennessee, Knoxville study. A brief summary of the major differences and similarities in the two studies is located in Appendix G.

The degree of consistency or agreement is expressed in terms of a correlation coefficient. Pearson's product-moment correlation coefficient and Cronbach's Alpha (split-halves) were used to determine the reliability of the research instrument.

Pearson's product-moment correlation questions "to what extent does sum 1 measure the same thing as sum 2?" Cronbach's Alpha question(s) "given these two scales (group 1 and group 2), how reliable would the whole be if they were combined?"

Table VI indicates the reliability of the research instrument on eight dimensions and the overall reliability of the instrument by utilizing Cronbach's Alpha and Pearson's product-moment correlation coefficients. The correlation coefficients on each dimension and the overall reliability of the instrument were greater when scored by Cronbach's Alpha than when estimated by the Pearson's product-moment correlation.

Reliability scores were not computed on demographic data because whatever people say usually must be accepted as true. Therefore, you can assume essentially perfect reliability on demographic data.

Reliability estimates were not prepared on organizational membership and radio station preference. Reliability requires two sets of scores; these two dimensions provide only one set of scores.

TABLE VI

RELIABILITY OF RESEARCH INSTRUMENT

Dimension	Cases	Pearson Correlation Coefficient	Cronbach's Alpha
Opinion	369	0.7210	0.8378
Interest	369	0.8016	0.8888
Motivation for Participation	369	0.7395	0.8501
Job Satisfaction	369	0.9262	0.9614
Activities in the Past Year	369	0.8016	0.8897
Newspaper Preferences	369	0.3452	0.5036
Television Viewing Preference	369	0.8339	0.9088
Magazine Preference	369	0.8709	0.9310
Overall Reliability	369	0.8955	0.9438

*Significance level 0.001.

III. DEMOGRAPHIC ITEMS

This dimension of the instrument was designed to measure the demographic characteristics of the adult students participating in the non-credit courses at The University of Tennessee, Knoxville during the Winter Quarter, 1978. A limited discriminant analysis was conducted on the following demographic variables: age, family income, level of education and number of children. The other demographic variables (sex, marital status, religious affiliation, occupation, zip code and number of non-credit courses previously taken) were anlayzed by utilizing chi-square.

Discriminant analysis reveal that a statistically significant difference ($p<.10$) exists among the five learning groups in regard to the demographic variables (age, family income, highest level of education attained, and number of children), $F(4,330) = 1.99$, $p<.10$. Table VII shows the mean scores for each of the five learning groups on the demographic items. A description of the "average" adult student taking non-credit courses at The University of Tennessee, Knoxville, was as follows: 27.3 years old with 15.03 years of education, had a family income of $14,800 and had less than one child. The Job-Related Subjects and Skills adult students were 31.7 years old with a family income of $15,750, 14.54 years of education, and less than two but more than one child. Table VIII provides a

TABLE VII

MEAN SCORES OF THE FIVE LEARNING GROUPS ON THE DEMOGRAPHIC ITEMS (AGE, INCOME, EDUCATION, CHILDREN)

Demographic Item	N =	Groups[a] 1 PD 77	2 H&F 54	3 JR 54	4 H&R 89	5 DA 61
Age		25.7	29.3	31.7	26.1	25.7
Family Income		$12,649.00	$15,160.00	$15,750.00	$15,550.00	$15,100.00
Level of Education		14.75	15.89	14.54	14.85	15.46
Number of Children		(0.65) > 1.00	1.00	(1.43) < 1.00 > 2.00	(0.75) > 1.00	(0.41) > 1.00

[a]Groups are coded as follows: (1) Personal Development (PD); (2) Home and Family (H&F); (3) Job-Related Subjects and Skills (JR); (4) Hobbies and Recreation (H&R); and (5) Decorative Arts and Crafts (DA).

TABLE VIII

DESCRIPTION OF PARTICIPANTS INVOLVED IN STUDY

Descriptive Category	Number	Percent
I. Sex		
Male	165	44.7
Female	199	53.9
No Response	5	1.4
Total	369	100.0
II. Age Distribution		
Under 20	19	5.2
20-30	194	52.6
31-40	73	19.8
41-50	44	12.0
51-59	25	6.7
Over 60	13	3.4
No Response	1	0.3
Total	369	100.0
III. Family Income		
Under $5,000	26	7.0
$5,000 - 9,999	50	13.6
$10,000 - 14,999	57	15.4
$15,000 - 19,999	74	20.1
$20,000 - 24,999	56	15.2
$25,000 and over	83	22.5
No Response	23	6.2
Total	369	100.0
IV. Race		
Black	3	0.8
White	321	87.0
Oriental	1	0.3
Other	1	0.3
No Response	43	11.6
Total	369	100.0
V. Marital Status		
Single	118	32.0
Married	202	54.7
Separated	8	2.2
Divorced	32	8.7
Widowed	7	1.9
No Response	2	0.5
Total	369	100.0

TABLE VIII (Continued)

Descriptive Category	Number	Percent
VI. Religious Affiliation		
Protestant	256	69.4
Catholic	32	8.7
Jewish	4	1.1
Other Religious Affiliation	66	17.9
No Response	11	2.4
Total	369	100.0
VII. Occupation		
Professional/Technical	178	48.2
Manager/Proprieter	26	7.1
Clerical	45	12.2
Salesperson	17	4.7
Skilled worker/Laborer	24	6.5
Homemaker	33	8.9
Retired	9	2.4
No Response	37	10.0
Total	369	100.0
VIII. Number of Children		
Zero	224	60.7
1	51	13.8
2	51	13.8
3	22	5.9
4	12	3.3
5	1	0.3
6	2	0.5
7	1	0.3
No Response	5	1.4
Total	369	100.0
IX. Zip Code		
371, 372, 377	23	6.2
378	36	9.8
37902 - 37915	22	6.0
37916	16	4.3
37917	15	4.1
37918	26	7.1
37919	88	23.8
37920	37	10.0
37921-22	17	4.6
381	1	0.3

TABLE VIII (Continued)

Descriptive Category	Number	Percent
No Response	88	23.8
Total	369	100.0
X. Highest Education Level Attained		
1-8 Years	1	0.3
9 Years	1	0.3
10 Years	1	0.3
11 Years	2	0.5
12 Years	77	21.2
13 Years	19	5.3
14 Years	29	8.0
15 Years	21	5.8
16 Years	127	35.1
Masters Level	65	17.9
Doctorate Level	19	5.3
No Response	7	1.9
Total	369	100.0

description of the adult students involved in the study. A demographic profile of learners and would-be learners is summarized in Table II, page 32.

Table IX diagrams the results of the demographic items accounting for significant discriminant differences among the five learning groups and gives the location of the differences. The discriminant analysis reveals that the Personal Development adult students had a higher level of education than the Home and Family adult students. When the Personal Development and Decorative Arts and Crafts students were compared, the former showed a higher level of education than the latter. The Home and Family students had a larger number of children than the Decorative Arts and Crafts students.

The Job-Related Subject and Skills adult students had a significantly larger number of children and had attained a higher level of education than the Hobbies and Recreation and Decorative Arts and Crafts students. The discriminant analysis indicates that the Hobbies and Recreation students had a higher level of education than the Decorative Arts and Crafts students.

Table X summarizes the discriminant analysis on demographic items. Data indicate which demographic items were the most useful in discriminating among the groups based upon the statistical significance level of $p<.10$. The univariate F-ratio indicates that number of children, level

TABLE IX

DEMOGRAPHIC ITEMS ACCOUNTING FOR SIGNIFICANT DISCRIMINANT DIFFERENCES AMONG THE FIVE LEARNING GROUPS AND THE LOCATION OF THE DIFFERENCES

Demographic Items	Group Comparisons[a]										
	F(4,330)	1,2	1,3	1,4	1,5	2,3	2,4	2,5	3,4	3,5	4,5
Number of Children (5.80)								X	X	X	
Level of Education (5.24)*		X			X				X	X	X

NOTE: "X" indicates the group displaying significantly greater response with respect to the specific demographic item.

[a]Groups coded as follows: (1) Personal Development; (2) Home and Family; (3) Job Related Subjects and Skills; (4) Hobbies and Recreation; and (5) Decorative Arts and Crafts.

*$p < .10$

TABLE X

SUMMARY TABLE OF DISCRIMINANT ANALYSIS FOR DEMOGRAPHIC ITEMS

Demographic Item	Univariate F F-Ratio (4.330)	to Enter or Remove	Wilk's Lambda	Significance	Rao's V	Change in Rao's V	Significance of Change
Number of Children	5.804	5.803	0.934	0.000	23.21	23.21	0.000*
Level of Education	4.803	4.688	0.884	0.000	42.10	18.88	0.001*
Family Income	1.811	1.564	0.867	0.000	48.40	6.30	0.178
Age	3.381	1.231	0.854	0.000	53.60	5.20	0.267

*$p < .10$

of education, and age are statistically significant variables.

For the population of respondents, data indicate that the number of children and highest level of education attained variables are the most important in the standardized discriminant function. The group centroid was the Job-Related Subjects and Skills group. The percent of grouped cases correctly classified was 31.04 percent.

The chi-square analyses reveal a significant difference in marital status among the five learning groups (Appendix F). Three hundred and sixty-seven persons responded to the marital status question. Fifty-five percent of the adult students were married. Thirteen percent of the adult students were either separated, divorced or widowed. Thirty-three percent of the single adult students preferred Hobbies and Recreation non-credit courses. One-third of the separated, divorced or widowed students took Personal Development courses. Fifty-two percent of the students in Hobbies and Recreation non-credit courses were married. An inspection of the chi-square table reveals that among the greatest contributors to the significant relationship were fewer adult students in Job-Related Subjects and Skills group who were single.

The chi-square analyses indicate that there are significant occupational differences among the five learning groups at the $p<.10$ level. Fifty-four percent of the

322 adult students responding to the occupation question indicated their occupation as professional/technical. Sixty-eight percent of the professional/technical students were registered in Decorative Arts and Crafts non-credit courses. Adult students with a manager/proprietor occupation orientation had the lowest level of participation in all of the non-credit programs. An inspection of the chi-square table reveals that among the greatest contributors to the significant relationship were more adult students in the Personal Development group who had a clerical career orientation.

Chi-square analyses indicate that there were no significant differences ($p<.10$) among the five learning groups and religious affiliation, number of non-credit courses taken previously, race, and zip code of the adult students. (See Appendix F, page 219.)

Seventy-two percent of the 358 responding adult students had a protestant religious affiliation. The data reveal that more of the adult students in the Job-Related Subjects and Skills group were protestant than expected. Fifty-eight percent of the adult students had never before taken a non-credit course at The University of Tennessee, Knoxville. More of the adult students in Personal Development courses had previously taken two or more courses at the University than expected. Ninety-eight percent of the 326 responding adult students were white. Analyses

indicate that 44 percent of the responding adult students resided in the 37919 and 37920 zip code areas.

The chi-square analyses show that a significant difference in sex of the respondent did exist among the five learning groups. Fifty-five percent (199) of the 364 adult students who responded to the question of their sex were female. The largest percent of female adult students was concentrated in Personal Development non-credit courses while male students preferred Hobbies and Recreation courses.

IV. OPINION

The Opinion dimension of the research instrument was designed to measure the conservative or liberal, social and educational opinions of the adult students toward government, minorities and social welfare, pollution, law and order, family structure, women's rights, business, and teaching approach. The lower the score on the opinion subscale the more conservative the opinion. A total of 365 students responded to the opinion dimension.

Table XI shows the mean scores for each of the five learning groups on theopinion subscale. Discriminant analysis reveals that a statistically significant difference ($p \leq .10$) exists among the five learning groups in regard to opinions, $F(4,360) = 1.99$, $p \leq .10$. The Job-Related Subjects and Skills students had the lowest mean raw score of 2.91 on the law and order variable while the

TABLE XI

MEAN SCORES OF THE FIVE LEARNING GROUPS ON EACH OPINION SUBSCALE[1]

Opinion Subscale N=	Group[2] 1 PD 82	2 H&F 61	3 JR 63	4 H&R 95	5 DA 64
Government	3.57	3.46	3.38	3.45	3.34
Minorities of Social Welfare	4.70	4.64	4.38	4.47	4.41
Pollution	4.93	4.98	4.81	5.05	4.90
Law and Order	3.11	3.24	2.91	3.12	3.33
Family Structure	3.90	4.04	3.53	3.71	3.92
Women's Rights	4.87	4.83	4.66	4.70	4.83
Business	4.50	4.33	4.53	4.38	4.42
Teaching Approach	4.76	4.86	4.53	4.89	4.56

[1]Mean scores can range from 1-6.

[2]Groups coded as follows: (1) Personal Development (PD); (2) Home and Family (H & F); (3) Job-Related Subjects and Skills (JR); (4) Hobbies and Recreation (H & R); and (5) Decorative Arts and Crafts (DA).

Hobbies and Recreation students had the highest mean raw score of 5.05 on the pollution variable.

Table XII displays the results of the opinion subscales which account for significant differences among the five learning groups and the location of the differences. The discriminant data indicate that family structure and teaching approach are the only variables which, by themselves, discriminate among the groups. The family structure variable among Personal Development students shows that members of this group are significantly more liberal in their opinions than the Job-Related Subjects and Skills students. The Hobbies and Recreation adult students are significantly more liberal in their opinions toward teaching approach than are Decorative Art and Crafts students.

Table XIII is a summary of discriminant analysis on opinion subscales. Data indicate that family structure and teaching approach are the most useful variables in discriminating among the groups based upon a statistical significance of chance level of $p < .10$. The univariate F-ratio shows that the family structure and teaching approach are the only statistical significant variables.

For the total population, the data indicate that the family structure and teaching approach variables were the most important on the standardized discriminant function. The most important group centroid was the Home and Family Group. The percent of "grouped" cases correctly classified was 29.04 percent.

TABLE XII

OPINION SUBSCALES ACCOUNTING FOR SIGNIFICANT AND DISCRIMINANT DIFFERENCES AMONG THE FIVE LEARNING GROUPS AND THE LOCATIONS OF THE DIFFERENCES

Opinion Subscales	Group Comparisons[a]										
	F (4,360)	1,2	1,3	1,4	1,5	2,3	2,4	2,5	3,4	3,5	4,5
Family Structure (2.69)			X			X	X				
Teaching Approach (2.03)*			X			X					X

NOTE: "x" indicates the group displaying significantly more liberal opinions with respect to the specific subscale.

[a]Groups coded as follows: (1) Personal Development; (2) Home and Family; (3) Job Related Subjects and Skills; (4) Hobbies and Recreation; and (5) Decorative Arts and Crafts.

*$p < .10$

TABLE XIII

SUMMARY TABLE OF DISCRIMINANT ANALYSIS FOR OPINION SUBSCALES

Opinion Subscale	Univariate F-Ratio (4,360)	F to Enter or Remove	Wilk's Lambda	Significance	Rao's V	Change in Rao's V	Significance of Change
Family Structure	2.693	2.693	0.970	0.031	10.764	10.764	0.029**
Teaching Approach	2.027	1.979	0.949	0.018	18.716	7.952	0.093**
Law and Order	2.323	1.342	0.935	0.021	24.181	5.465	0.243
Minorities and Social Welfare	1.652	1.235	0.923	0.026	29.208	5.026	0.285
Government	0.418	0.645	0.916	0.051	31.884	2.676	0.613
Business	0.455	0.620	0.910	0.089	34.480	2.595	0.628
Pollution	0.730	*					
Women's Rights	0.725	*					

NOTE: Entry level for inclusion in the analysis is 0.50

*Below entry level

**p < .10

A summary of Cronbach's Alpha on the opinion subscale is in Table XIV. The reliability coefficients range from a high of 0.72 (business) to a low of 0.27 (teaching approach and law and order).

V. INTEREST

The interest dimension of the research instrument was designed to measure the various interests of adult students. Three hundred and fifty-nine adult students answered the interest dimension statement.

The 31 interest items were factor analyzed. Eight interest factors were identified from the varimax rotated factor matrix. Table XV identifies each factor by name, interest items, and factor loading. Table XVI shows the interest items, the interest questionnaire item and the variance accounted for by each factor.

Factor I, Religious, was defined as an interest in some religious faith that affects the lives of the adult students. The two items that comprise Factor I have large factor loadings and they seem logical constituents of a cluster. The high loading of .798 and above on Factor I indicates that the religious interest factor accounted for a large portion of the total variance (36.7 percent) and the items were therefore included as Factor I.

Factor II, Cultural and Educational Pursuits, was defined as an interest to derive pleasure from learning

TABLE XIV

SUMMARY OF CRONBACH'S ALPHA ON THE OPINION SUBSCALES

Opinion Subscales (N)[1]	Items	Cronbach's Alpha*
Government (N = 367)	2	0.39
Minorities and Social Welfare (N = 357)	4	0.54
Pollution (N = 363)	4	0.57
Law and Order (N = 354)	4	0.27
Family Structure (N = 352)	4	0.52
Women's Rights (N = 352)	4	0.55
Business (N = 355)	4	0.72
Teaching Approach (N = 358)	2	0.27
TOTAL OPINION SCALE	28	

*The higher the Alpha, the greater the reliabilty.

[1](N) = number of cases.

TABLE XV

VARIMAX INTEREST FACTOR ANALYSIS

Factor	Interest Item	Loading
Factor I	Religious	
	Religion plays an important part in my life	.929
	I often read the Bible	.798
Factor II	Cultural & Educational Pursuits	
	I would like to learn to paint, draw or sculpture	.618
	I would like to learn how to prepare gourmet meals	.601
	I have always wanted to speak another language	.512
	I would like to know more about the proper care of house plants	.473
	Sometimes I think that I have missed something because I have never learned more about art and classical music	.464
	I would like to learn more about photography	.422
	I have always wanted to play the piano or guitar	.358
	It would be a good idea for me to learn the metric system since it will be in general use before too long	.306
Factor III	Fiscal and Physical Health	
	I would like to know more about how the stock market works and how a person can invest in it	.682
	These days a person needs to take a course in how to manage his/her money better	.664
	I wish I knew more about economics so that I would really understand what is happening in our economy	.557

TABLE XV (Continued)

Factor	Interest Item	Loading
	I would like to know more about financial planning for retirement	.472
	I would like to take a "Consumer Survival Kit" course that taught me what to look for and how to get a fair shake when buying a home, car, furniture, appliances, etc.	.393
	I would be interested in meeting regularly with a health professional who would help me plan and maintain a diet and exercise program.	.363
Factor IV	Political Awareness	
	I enjoy discussions about politics	.770
	I would like to get together with a group of people on a regular basis to discuss world events and foreign policy	.606
Factor V	Personal Awareness	
	It would be nice to meet once a week with a professional and a group of people to discuss how we feel about ourselves and our place in the world	.656
	I often wish there were a counselor I could talk with to discuss personal or vocational problems	.585
	Even though I try my best to raise my children, I would like to take a course on how to be a more effective parent.	.519
	It would be interesting to meet regularly with a group of people and discuss a book we had all read	.397

TABLE XV (Continued)

Factor	Interest Item	Loading
	I would like to take a Dale Carneige course for self-improvement	.334
	I would like to go on a guided tour with a historian and visit some of the interesting places in our area	.308
Factor VI	Crafts and Hobbies	
	I like to work with wood	.809
	I would like to build a radio, TV, etc., from an electronics kit	.597
Factor VII	Horticulture and Botany	
	I like to garden	.645
	I would like to know more about the proper care of house plants	.509
Factor VIII	Avocational	
	All cigarette smokers should try and "kick the habit"	.461
	Everyone should have a hobby	.457
	I would like to take a Dale Carnegie course for self-improvement	.298
	I have always wanted to play the piano or guitar	.265
	It's a good idea for everyone to learn to do his/her own automobile maintenance	.225

TABLE XVI

THE INTEREST FACTORS, THE QUESTIONNAIRE ITEMS IN EACH FACTOR AND THE VARIANCE ACCOUNTED FOR

Factors	Items in Each Factor	Variance Accounted For
Religious	48,49	36.7%
Cultural and Educational Pursuits	23,24,25,33,37,51,55,56	14.9%
Fiscal and Physical Health	10,15,16,17,58,59	13.2%
Political Awareness	3,57	10.8%
Personal Awareness	4,5,18,47,50,52	8.5%
Crafts and Hobbies	8,9	6.4%
Horticulture and Botany	36,55	5.2%
Avocational	32,37,52,53,54,59	4.4%
	EIGHT FACTOR TOTAL	100.0%

that serves the needs of a personal intellect and appreciation. Factor II consists of eight items and derives its meaning from the five statements with the highest factor loadings. When the cultural and educational pursuits factor loadings were studied, 14.9 percent of the total variance was accounted for among the various items of this factor.

Factor III, Fiscal and Physical Health, receives its name from interest in financial, economic and physical health learning activities that will assist an individual in achieving a personal goal. The six items that embrace the Fiscal and Physical Health factor obtain their meaning from the first five items with the highest loading scores and the last item with the lowest factor loading. Thirteen and six-tenths(13.6) percent of the total variance was accounted for among the various items of this factor.

Factor IV, Political Awareness, derives its meaning by the need to gain knowledge to achieve a goal that will improve society. The two items that comprise Factor IV have large factor loadings and seem to cluster logically. The Political Awareness factor accounted for 10.8 percent of the total variance.

Factor V, Personal Awareness, was defined as views held by the respondents, that education will assist them in attaining a personal goal. Factor V accounted for 8.5 percent of the total variance.

Factor VI, Crafts and Hobbies, involves continuing

education learners who indicate an interest to engage in a relaxing or non-working activity. The items within this cluster support this definition. Factor VI accounts for 6.4 percent of the total variance.

Factor VII, Horticulture and Botany, was defined as an interest in deriving pleasure from the raising and caring of garden produce and household plants. The two items of the Horticulture and Botany factor have loadings which support their logical clustering. The Horticulture and Botany factor accounted for a relatively small portion of the total variance (5.2 percent).

Factor VIII, Avocational, was defined as interest in a wide variety of learning activities and orientations that fulfills a need, or a self-satisfying goal. The items within this cluster support this definition. The Avocational factor accounted for the smallest portion of the total variance (4.4 percent).

Discriminant analysis reveals that a statistically significant difference ($p<.10$) exists among the five learning groups in regard to Interest, $F(4,359) = 1.99$, $p<.10$. Table XVII shows the mean scores for each of the five learnings groups on the interest factors. The Job-Related Subjects and Skills students have the lowest mean raw score of -0.340 on the Cultural and Educational Pursuits factor and the Personal Development students have the highest mean raw score of 0.389 on the Personal Awareness factor.

TABLE XVII

MEAN SCORES[a] OF THE FIVE LEARNING GROUPS ON EACH INTEREST FACTOR ANALYSIS

Interest Factors	N =	Group[b] 1 PD 82	2 H&F 61	3 JR 63	4 H&R 95	5 DA 63
Religious		0.072	-0.242	0.249	-0.077	-0.010
Cultural and Educational Pursuits		0.201	0.069	-0.340	-0.038	0.076
Fiscal and Physical Health		0.082	-0.006	0.231	-0.053	-0.242
Political Awareness		-0.158	0.125	0.226	0.002	-0.119
Personal Awareness		0.389	-0.128	-0.056	-0.o08	-0.165
Crafts and Hobbies		-0.175	0.033	-0.292	0.184	0.187
Horticulture and Botany		0.089	0.042	-0.033	-0.079	-0.038
Avocational		-0.167	-0.116	0.026	0.129	0.119

[a]Mean scores can range from +1 to -1.

[b]Groups are coded as follows: (1) Personal Development (PD); (2) Home and Family (H&F); (3) Job-Related Subjects and Skills (JR); (4) Hobbies and Recreation (H&R); and (5) Decorative Arts and Crafts (DA).

Table XVIII indicates (1) the results of the Interest subscale which account for significant differences among the five learning groups and (2) the location of the differences. The discriminant data indicate that all except the Horticulture and Botany factor discriminate among the groups. The discriminant data reveal that the Personal Development students were statistically more interested in Personal Awareness and Cultural and Educational Pursuit courses than the Home and Family, Job-Related Subjects and Skills, Hobbies and Recreation, and Decorative Arts and Crafts students. The Personal Development students showed more interest in Political Awareness courses than the Decorative Arts and Crafts students. When the Personal Development students were compared to the Home and Family, Hobbies and Recreation, and Decorative Arts and Crafts students, the former indicate more interest in Fiscal and Physical Health and Religious courses. The Personal Development group's interest was more dependent upon Avocational courses than was the Home and Family group's.

Home and Family students were inspired by interests in Crafts and Hobbies and Cultural and Educational Pursuits when compared to Job-Related Subjects and Skills students. Job-Related Subjects and Skills students expressed stronger interest in Political Awareness, Fiscal and Physical Health, and Religious courses than did the Hobbies and Recreation and Decorative Arts and Crafts students.

TABLE XVIII

INTEREST FACTORS ACCOUNTING FOR SIGNIFICANT DISCRIMINANT DIFFERENCES AMONG THE FIVE LEARNING GROUPS AND THE LOCATION OF THE DIFFERENCES

Interest Factors	F(4,359)	Group Comparisons[a] 1,2	1,3	1,4	1,5	2,3	2,4	2,5	3,4	3,5	4,5
Personal Awareness (6.45)*		X	X	X	X						
Crafts and Hobbies (5.54)*						X					
Cultural and Educational Pursuits (4.98)*		X	X	X	X	X					
Political Awareness (4.56)*					X				X	X	
Fiscal and Physical Health (4.23)*		X		X	X				X	X	
Avocational (4.04)*		X									
Religious (3.77)*		X		X	X				X	X	

NOTE: "x" indicates the group displaying significantly greater response with respect to the specific interest factor.

[a]Groups coded as follows: (1) Personal Development; (2) Home and Family; (3) Job Related Subjects and Skills; (4) Hobbies and Recreation; and (5) Decorative Arts and Crafts.

*$p < .10$

A summary of discriminant analysis for the Interest factors is presented in Table XIX. The most useful factors in discriminating among the groups, based upon a statistical significance level of $p<.10$, were Personal Awareness, Crafts and Hobbies, Cultural and Educational Pursuits, Political Awareness, Fiscal and Physical Health, Avocational and Religious factors. The univariate F-ratio showed that the previously mentioned factors were statistically significant.

Data from the 359 usable responses indicated that the Personal Awareness factor was the least important on the standardized discriminant function and the Crafts and Hobbies factor was the most important standardized discriminant function. The group centroid was the Personal Development group. The percent of "grouped" cases correctly classified was 37.64.

VI. MOTIVATION FOR PARTICIPATION

The Motivation for Participation dimension of the research instrument was designed to measure why adult students take non-credit courses. The higher the score the more the subscaled factor served as a motivator for participation.

Discriminant analysis reveals that a statistically significant difference ($p<.10$) exists among the five learning groups in regard to Motivation for Participation, $F(4,358) = 1.99$, $p<.10$ Table XX shows the mean scores

TABLE XIX

SUMMARY TABLE OF DISCRIMINANT ANALYSIS FOR INTEREST FACTORS

Interest Factor	Univariate F-Ratio (4,359)	F to Enter or Remove	Wilk's Lambda	Significance	Rao's V	Change in Rao's V	Significance of Change
Personal Awareness	6.455	6.455	0.933	0.000	25.82	25.82	0.000**
Crafts and Hobbies	4.495	4.646	0.887	0.000	44.94	19.12	0.001**
Cultural and Educational Pursuits	4.122	3.835	0.850	0.000	60.66	15.72	0.003**
Political Awareness	2.509	3.266	0.820	0.000	74.61	13.95	0.007**
Fiscal and Physical Health	2.762	2.862	0.795	0.000	87.06	12.46	0.014**
Avocational	2.574	3.013	0.768	0.000	100.28	13.22	0.010**
Religious*	2.355	2.157	0.750	0.000	109.62	9.34	0.053**
Horticulture and Botany*	0.601	0.648	0.745	0.000	112.57	2.95	0.566

NOTE: Entry level for inclusion in the analysis is 0.50.

*Below entry level.

**$p < .10$

TABLE XX

MEAN SCORES OF THE FIVE LEARNING GROUPS ON EACH MOTIVATION FOR PARTICIPATION SUBSCALE[1]

Motivation Subscales	N=	Groups[2] 1 PD 81	2 H&F 61	3 JR 63	4 H&R 94	5 DA 64
Social Relationships		2.63	2.81	2.38	3.07	2.52
External Expectations		1.52	1.34	2.45	1.54	1.23
Professional Advancement		2.86	1.72	4.39	1.71	1.95
Escape/Stimulation		2.87	2.68	1.94	3.14	2.65
Cognitive Interest		4.04	4.26	4.02	3.98	4.32

[1]Mean scores can range from 1-6.

[2]Groups coded as follows: (1) Personal Development (PD); (2) Home and Family (H & F); (3) Job-Related Subjects and Skills (JR); (4) Hobbies and Recreation (H & R); and (5) Decorative Arts and Crafts (DA).

for each of the five learning groups on the Motivation for Participation subscale. The Decorative Arts students have the lowest mean raw score of 1.23 on the external expectations subscale while the Job-Related Subjects and Skills adult students have the highest mean raw score of 4.39 on the Professional Advancement subscale.

Table XXI shows the results of the Motivation for Participation subscales, accounting for significant discriminant differences among the five learning groups, and gives the location of the differences. The discriminant analysis indicates that the Personal Development adult students are more motivated to attend non-credit courses by professional development, escape/stimulation, and external expectations than the Home and Family adult students. The Personal Development students are more motivated by escape/stimulation and social relationships than the Job-Related Subjects and Skills students. When the Personal Development students are compared to the Hobbies and Recreation students, the former are only motivated by professional advancement. The Personal Development group's motivation was more dependent upon needs for professional advancement, escape/stimulation, external expectations, and social relationships than was the Decorative Arts and Crafts group.

The Home and Family students are inspired to participate more by escape/stimulation and social relationships when compared to the Job-Related Subjects and Skills students.

TABLE XXI

MOTIVATION FOR PARTICIPATION SUBSCALES ACCOUNTING FOR SIGNIFICANT DISCRIMINANT DIFFERENCES AMONG THE FIVE LEARNING GROUPS AND THE LOCATION OF THE DIFFERENCES

Motivation for Participation Subscale	Group Comparisons[a]										
	F(4,358)	1,2	1,3	1,4	1,5	2,3	2,4	2,5	3,4	3,5	4,5
Professional Advancement (41.46)*		X		X	X				X	X	
Escape/Stimulation (21.30)*		X	X		X	X					X
External Expectations (14.96)*		X			X				X	X	X
Social Relationships (11.66)*			X		X	X			X		X

NOTE: "x" indicates the group displaying significantly greater motivation with respect to the specific motivation for participation subscale.

[a]Groups coded as follows: (1) Personal Development; (2) Home and Family; (3) Job Related Subjects and Skills; (4) Hobbies and Recreation; and (5) Decorative Arts and Crafts.

*$p < .10$

When the Job-Related Subjects and Skills students are compared to the Hobbies and Recreation students, the former are influenced to participate by the needs of professional advancement, external expectations and social relationships. The Job-Related Subjects and Skills students were involved because of their needs for professional advancement and external expectations. The Hobbies and Recreation students' strongest motivation came from needs to fulfill external expectations, social relationships, and escape/stimulation. This was more important to the preceeding group than to the Decorative Arts and Crafts students.

A summary of discriminant analysis for Motivation for Participation subscales is presented in Table XXII. The most useful variables in discriminating among the groups (based upon a statistical significance level of $p<.10$) are professional advancement, escape/stimulation, external expectations and social relationships. The univariate F-ratio shows that the previously mentioned subscales are statistically significant.

Data from the 358 usable responses indicate that the Professional Advancement variable was the most important on the standardized discriminant function. The most important group centroid was the Job-Related Subjects and Skills group. The percent of "grouped" cases correctly classified was 40.77.

A summary of Cronbach's Alpha on the Motivation for Participation subscale is in Table XXIII. The range of

TABLE XXII

SUMMARY TABLE OF DISCRIMINANT ANALYSIS FOR MOTIVATION FOR PARTICIPATION SUBSCALES

Motivation for Participation	Univariate F-Ratio (4,358)	F to Enter or Remove	Wilk's Lambda	Significance	Rao's V	Change in Rao's V	Significance of Change
Professional Advancement	41.46	41.46	0.68	0.000	165.84	165.84	0.000*
Escape/ Stimulation	6.57	4.23	0.65	0.000	187.13	21.29	0.000*
External Expectations	11.51	3.03	0.63	0.000	199.33	12.20	0.016*
Social Relationships	2.70	2.89	0.62	0.000	210.74	11.41	0.022*
Cognitive Interest	0.73	1.14	0.61	0.000	215.52	4.78	0.311

*p < .10

TABLE XXIII

SUMMARY OF CRONBACH'S ALPHA ON MOTIVATION FOR PARTICIPATION SUBSCALE

Motivation for Participation (N)[1]	Items	Cronbach's Alpha
Professional Advancement (N = 363)	2	0.82
Escape/Stimulation (N = 363)	2	0.70
External Expectations (N = 360)	2	0.86
Social Relationships (N = 360)	2	0.74
Cognitive Interests (N = 362)	2	0.62
TOTAL ITEMS	10	

NOTE: The higher the Alpha, the greater the reliability.

[1](N) = number of cases.

reliability coefficients was from 0.86 (External Expectations) to .62 (Cognitive Interest).

VII. JOB SATISFACTION

The Job Satisfaction dimension of the research instrument was designed to measure how the adult students felt about their jobs. The job satisfaction section was answered by 295 students. The higher the score the greater the sense of job satisfaction. An analysis of variance was conducted on the Job Satisfaction dimension.

The analysis of variance indicates that the differences among five learning groups was not significant on the Job Satisfaction subscale, $F(4,295) = 1.260$, $p<0.2858$.

The means for each of the groups were as follows: Personal Development--4.301; Home and Family--4.299; Job-Related Subjects and Skills--4.612; Hobbies and Recreation--4.319; and Decorative Arts and Crafts--4.289. Cronbach's Alpha for the Job Satisfaction sbuscale has a reliability coefficient of 0.79.

VIII. ACTIVITIES IN THE PAST YEAR

The Activities in the Past Year dimension of the research instrument measured the number of activities that 359 adult students engaged in during the past year. The higher the score the greater the number of times the activity was engaged in during the past year.

Factor analysis was conducted on the 49 activities the past year items. Six activity factors were identified from the varimax rotated factor matrix. Table XXIV identifies the factors by name, activity items and factor loading. Table XXV shows the activity factor, the activity questionnaire item and the variance accounted for by each factor.

Factor I, Active Recreational, was defined as maximum participation in sport activities which are interlocked with visiting and friendship patterns. The 18 items that comprise Factor I have factor loadings which form a cluster. The Active Recreational factor accounted for the largest portion of the total variance (43.4 percent).

Factor II, Educational and Cultural, was defined as activities that serve the educational needs of personal intellect and appreciation. Factor II derives its meaning from the six items with the highest factor loadings. The Educational and Cultural factors accounted for the second largest portion of the total variance (19.3 percent).

Factor III, Religious and Organizational, was defined because of the active religious and religious association commitments of the adult students. There are six items in the Religious and Organizational factor which takes its meaning from the first five items with positive loading scores. The negative loading also logically relates to the item's title. The Religious and Organizational factor accounted for the third largest portion of the total variance (14.4 percent).

TABLE XXIV

VARIMAX ACTIVITIES IN THE PAST YEAR FACTOR ANALYSIS

Factor	Activities in the Past Year Item	Loading
Factor I	Active Recreational	
	Went water skiing	.669
	Went boating	.624
	Played basketball	.600
	Played pool or billards	.554
	Went hunting or fishing	.467
	Went swimming	.426
	Played handball, paddleball	.422
	Attended a sporting event	.401
	Went hiking, backpacking, camping	.388
	Went to a pop, country, rock concert	.380
	Went snow skiing	.373
	Played tennis	.312
	Jogged or did calesthenics	.290
	Went to a movie	.289
	Drank beer	.278
	Went bowling	.260
	Went to an auto race	.238
	Did some sewing, knitting, etc.	-.374
Factor II	Educational and Cultural	
	Went to a library	.653
	Read a book	.585
	Went for a relaxing walk	.571
	Attended a lecture (not a class)	.489

TABLE XXIV (Continued)

Factor	Activities in the Past Year Item	Loading
	Sang or played a musical instrument	.462
	Visited an art gallery or museum	.432
	Did some deep thinking	.387
	Worked on a collection (stamps, etc.)	.345
	Went to an organization meeting	.335
	Went hiking, backpacking, camping	.332
	Wrote a poem, story or song	.326
	Went to a classical concert	.275
	Did art work (painting, drawing, photography, sculpture, etc.)	.275
	Jogged or did calesthenics	.264
	Brought some work home from my job	.249
	Drank wine	.248
	Performed in amateur dramatics	.238
	Worked on a do-it-yourself job around the house	.238
Factor III	Religious and Organizational	
	Attended church	.784
	Prayed	.647
	Did volunteer or community work	.457
	Attended a sporting event	.328
	Went to an organization meeting	.321
	Drank beer	-.423
Factor IV	Home-Centered	
	Cooked outdoors	.638
	Went on a picnic	.618
	Worked on a do-it-yourself job around the house	.489

TABLE XXIV (Continued)

Factor	Activities in the Past Year Item	Loading
	Went hiking, backpacking, camping	.457
	Went boating	.414
	Played with the children	.379
	Went for a relaxing walk	.317
	Entertained people in my home	.300
	Went swimming	.278
	Went hunting or fishing	.263
	Drank wine	.231
	Sang or played a musical instrument	.221
	Played a parlor game	.220
	Worked on a collection (stamps, etc.)	.219
	Went water skiing	.215
	Went on a vacation	.191
Factor V	Social-Drinking Pattern	
	Drank wine	.622
	Drank beer	.384
	Went dancing	.373
	Went out to dinner to a restaurant	.336
	Entertained people in my home	.327
	Went to a movie	.321
	Went to a pop, country or rock concert	.309
	Went swimming	.277
	Went snow skiing	.249
	Did some deep thinking	.218
	Jogged or did calesthenics	.216

TABLE XXIV (Continued)

Factor	Activities in the Past Year Item	Loading
	Brought some work home from my job	.211
	Cooked outdoors	.207
	Went to an organization meeting	.204
	Went on a trip outside the U.S.	.204
Factor VI	Neighborhood-Orientation	
	Played pool or billiards	.549
	Went bowling	.433
	Smoked a cigarette (not pipe, cigar)	.413
	Played a parlor game	.384
	Entertained people in my home	.356
	Went to a classical concert	.290
	Went hunting or fishing	.273
	Did a crossword puzzle	.266
	Played golf	.263

TABLE XXV

THE ACTIVITIES IN THE PAST YEAR FACTORS, THE QUESTIONNAIRE ITEMS IN EACH FACTOR AND THE VARIANCES ACCOUNTED FOR

Factors	Items in Each Factor	Variance Accounted For
Active Recreational	87,90,94,95,96,99,100,101 102,103,104,105,106,107,108, 109,110 and 125	43.4%
Educational and Cultural	80,81,82,83,84,85,92,101,108, 113,118,120,122,123,124,126, 127 and 129	19.3%
Religious and Organizational	88,92,94,99,114 and 119	14.4%
Home-Centered	82,93,101,105,106,107,108, 111,112,113,115,116,117,122, 124 and 129	8.5%
Social-Drinking Pattern	86,87,89,90,91,92,93,94,101, 104,110,111,118,126 and 129	7.9%
Neighborhood Orientation	84,93,85,86,98,107,115,121 and 128	6.5%
	SIX FACTORS TOTAL	100.0%

Factor IV, Home-Centered, includes items that describe activities pertaining to home-centered pursuits. The sixteen items that comprise the Home-Centered factor have positively associated loadings. The Home-Centered factor accounts for a small portion of the total variance (8.5 percent).

Factor V, Social-Drinking pattern, was defined as activities in which drinking was positively associated with social activities. The Social-Drinking pattern, 15 items, derives its meaning from the two items with the highest loading factors. The Social-Drinking pattern factor accounted for a small portion of the total variance (7.9 percent).

Factor VI, Neighborhood-Orientation, includes items that describe activities that pertain to neighborhood oriented pursuits. The nine items that comprise the Neighborhood-Orientation factor have positively associated loadings. The Neighborhood-Oriented factor accounted for the smallest portion of the total variance (6.5 percent).

Discriminant analysis reveal that a statistically significant difference ($p<.10$) existed among the five learning groups in regard to Activities in the Past Year, $F(4,357) = 1.99$, $p<.10$. Table XXVI shows the mean scores for each of the five learning groups on the Activities in the Past Year factors. The Job-Related Subjects and Skills adult students have the lowest mean raw score on the Active Recreational factor (-0.33) while the Hobbies and Recreation adult students have the highest mean raw score of the Active Recreational factor (0.44).

TABLE XXVI

MEAN SCORES[a] OF THE FIVE LEARNING GROUPS ON THE ACTIVITIES IN THE PAST YEAR FACTORS

Activities in the Past Year Factors	N=	Groups[b] 1 PD 81	2 H&F 60	3 JR 63	4 H&R 96	5 DA 62
Active Recreational		-0.15	-0.21	-0.33*	0.44*	0.09
Educational and Cultural		0.12	0.18	-0.30	-0.03	0.06
Religious and Organizational		0.01	-0.04	0.17	-0.09	-0.06
Home Centered		0.03	-0.12	-0.13	0.14	0.03
Social-Drinking Pattern		0.04	0.03	-0.15	0.07	-0.04
Neighborhood Orientation		-0 05	-0.16	0.16	0.02	-0.02

[a]Mean scores can range from +1 to -1.

[b]Groups coded as follows: (1) Personal Development (PD); (2) Home and Family (H & F); (3) Job-Related Subjects and Skills (JR); (4) Hobbies and Recreation (H & R); and (5) Decorative Arts and Crafts (DA).

*$p < .10$

Table XXVII indicates the results of the Activities in the Past Year factors which account for significant differences among the five learning groups and the locations of the differences. The discriminant data indicate that the Active Recreational and Educational and Cultural factors are the only variables which by themselves discriminate among the groups. The discriminant data reveal that the Personal Development students were statistically more active in Educational and Cultural activities than the Job-Related Subjects and Skills and Hobbies and Recreation students.

When the Job-Related Subjects and Skills students were compared to the Hobbies and Recreation students, the former were engaged in more Recreational and Cultural activities. The Hobbies and Recreation students were more actively engaged in Active Recreational activities. This was more important to the preceeding group than to the Decorative Arts students.

Table XXVIII is a summary of discriminant analysis on Activities in the Past Year factors. Data indicate that Active Recreational and Educational and Cultural factors were the most useful variables in discriminating among the groups. The univariate F-ratio shows that the previously mentioned factors are the only statistically significant variables.

The usable data from 357 respondents indicate that the Active Recreational factor was the least important on

TABLE XXVII

ACTIVITIES IN THE PAST YEAR FACTORS ACCOUNTING FOR SIGNIFICANT DISCRIMINANT DIFFERENCES AMONG THE FIVE LEARNING GROUPS AND THE LOCATIONS OF THE DIFFERENCES

Activities in the Past Year Factors		Group Comparisons[a]									
	F(4,357)	1,2	1,3	1,4	1,5	2,3	2,4	2,5	3,4	3,5	4,5
Active Recreational (9.99)*											X
Educational and Cultural (6.42)*			X		X		X		X		

NOTE: "x" indicates the group displaying significantly greater response with respect to the specific activities in the past year factors.

[a]Groups are coded as follows: (1) Personal Development; (2) Home and Family; (3) Job Related Subjects and Skills; (4) Hobbies and Recreation; and (5) Decorative Arts and Crafts.

*$p < .10$

TABLE XXVIII

SUMMARY TABLE OF DISCRIMINANT ANALYSIS FOR ACTIVITIES IN THE PAST YEAR FACTORS

Activities in the Past Year Factors	Univariate F-Ratio (4,357)	F to Enter or Remove	Wilk's Lambda	Significance	Rao's V	Change in Rao's V	Significance of Change
Active Recreational	9.989	9.989	0.899	0.000	39.96	39.96	0.000**
Educational and Cultural	2.993	2.999	0.870	0.000	52.01	12.05	0.017**
Neighborhood Orientation	1.279	1.488	0.856	0.000	58.23	6.22	0.183
Religious and Organization	0.931	1.237	0.894	0.000	63.71	5.48	0.242
Home-Centered	1.291	0.852	0.836	0.000	67.47	3.77	1.439
Social-Drinking Pattern	0.758	*					

*Below entry level of 0.500

**$p < .10$

the standardized discriminant function. The group centroid was the Job-Related Subjects and Skills group. The percent of "grouped" cases correctly classified was 36.19 percent.

IX. TELEVISION VIEWING HABITS/PREFERENCE

The Television Viewing Habits/Preference dimension of the research instrument was designed to measure the importance of television viewing as a leisure activity and the types of television programs that the adult students watched. The higher the score the greater the importance of preference.

Discriminant analysis revealed that a statistically significant difference ($p<.10$) existed among the five learning groups with respect to Television Viewing Habits/Preference, $F(4,329) = 1.99$, $p<.10$. Table XXIX shows the mean scores of the five learning groups on Television Viewing Habits/Preference items and subscales. The Hobbies and Recreation adult students had the greatest mean raw score of 2.07 on the Sports subscale while the Home and Family had the lowest mean raw score of 1.11 on the Religious television preference item. (Mean scores ranged from 1 to 3).

Table XXX delineates the results of Television Viewing Habits/Preference items and subscales for significant differences among the five learning groups and the locations of the differences. The discriminant analysis

TABLE XXIX

MEAN SCORES OF THE FIVE LEARNING GROUPS ON TELEVISION VIEWING HABITS/PREFERENCE ITEMS AND SUBSCALES[1]

Television Viewing Habits/ Preference N=329	Groups[2] 1 PD 77	2 H&F 53	3 JR 56	4 H&R 89	5 DA 59
Talk Show	1.74	1.58	1.68	1.63	1.66
Situation Comedy	1.80	1.69	1.71	1.83	1.84
Variety Show	1.60	1.48	1.61	1.40	1.53
Action/Adventure	1.48	1.42	1.65	1.64	1.53
Religious	1.56	1.11	1.27	1.12	1.15
Science Fiction	1.52	1.40	1.49	1.60	1.55
Drama (Commercial, T.V.)	1.68	1.42	1.59	1.48	1.48
News	1.89	1.91	1.85	1.95	2.02
Drama (PBS)	1.41	1.49	1.28	1.33	1.44
Sports	1.65	1.75	1.94	2.07	1.98
Importance as a Leisure Activity[3]	3.73	3.63	3.84	3.44	3.44

[1]Mean scores can range from 1-3 for types of television shows.

[2]Groups are coded as follows: (1) Personal Development (PD); (2) Home and Family (H & F); (3) Job-Related Subjects and Skills (JR); (4) Hobbies and Recreation (H & R); and (5) Decorative Arts and Crafts (DA).

[3]Mean scores can range from 1-7 for importance of television as a leisure activity.

TABLE XXX

TELEVISION VIEWING HABITS/PREFERENCES ITEMS AND SUBSCALES ACCOUNTING FOR DISCRIMINANT DIFFERENCES AMONG THE FIVE LEARNING GROUPS AND THE LOCATIONS OF THE DIFFERENCES

Television Viewing Habits/Preferences Items and Sub-Scales	F(4,320)	Group Comparisons[a]									
		1,2	1,3	1,4	1,5	2,3	2,4	2,5	3,4	3,5	4,5
Importance as a Leisure Activity (3.76)*					X						
Variety Shows (3.08)*				X	X		X		X		
Action/Adventure (2.90)*									X	X	
Situation Comedy (3.34)*			X								

NOTE: "x" indicates the group displaying significantly greater television preference with respect to the specific item or subscale.

[a]Groups coded as follows: (1) Personal Development; (2) Home and Family; (3) Job Related Subjects and Skills; (4) Hobbies and Recreation; and (5) Decorative Arts and Crafts.

*$p < .10$

reveals that Personal Development students had a greater preference for Situation Comedy programs than the Job-Related Subjects and Skills adult students. When the Personal Development adult students were compared with the Hobbies and Recreation adult students, the former indicated a greater preference for Variety Shows. The Personal Development adult students placed greater emphasis on television as an important leisure time activity than the Decorative Arts and Crafts students.

When the Home and Family adult students were compared to the Hobbies and Recreation adult students, the former indicated a greater preference for Variety Shows. The analysis revealed a noteworthy preference by Job-Related Subjects and Skills students for Variety Shows and Action/ Adventure programs than the Hobbies and Recreation adult students showed. When the Job-Related Subjects and Skills and Decorative Arts and Crafts students were compared, the former group had a greater viewing preference for Action/ Adventure programs.

Table XXXI provides a summary of discriminant analysis for Television Viewing Habits/Preference items and subscales. The most useful variables in discriminating among the groups, based upon a statistical significance level of $p<.10$, are Sports, Television Importance as a Leisure Activity, Situation Comedy, Variety Shows and Action/Adventure programs. The univariate F-ratio indicated that the previously mentioned

TABLE XXXI

SUMMARY TABLE OF DISCRIMINANT ANALYSIS FOR TELEVISION VIEWING HABITS/PREFERENCES ITEMS AND SUBSCALES

Television Viewing Habits/ Preferences	Univariate F-Ratio (4,329)	F to Enter or Remove	Wilk's Lambda	Significance	Rao's V	Change in Rao's V	Significance of Change
Sports		4.84	0.94	0.001	19.37	19.37	0.001*
TV Important as Leisure Activity		2.70	0.91	0.000	30.54	11.17	0.025*
Situation Comedy		2.50	0.89	0.000	40.87	10.33	0.035*
Variety Show		2.28	0.86	0.000	50.66	9.78	0.044*
Action/ Adventure		2.17	0.84	0.000	59.71	9.06	0.060*
Drama (Commercial TV)		1.67	0.82	0.000	66.89	7.18	0.127
Religious		1.37	0.81	0.000	72.74	5.85	0.211
Drama (PBS)		1.23	0.80	0.000	78.03	5.29	0.259
Science Fiction		1.18	0.79	0.000	83.30	5.27	0.261
Talk Show		0.58	0.78	0.000	85.83	2.53	0.640

*p < .10

items and subscales are statistically significant ($p<.10$).

According to the standardized discriminant function, the adult students thought that the item, Sports programs, was the most important. The most important group centroids were the Decorative Arts and Crafts and Personal Development groups. The percent of "grouped" cases correctly classified was 38.02 percent.

Table XXXII is a synopsis of Cronbach's Alpha on Television Viewing Habits/Preference subscales. The largest reliability coeffieient (0.71) appeared on the Sports subscale.

X. ORGANIZATIONAL MEMBERSHIP

The Organizational Membership dimension of the research instrument was designed to measure the types of organizational memberships held by the adult students. The higher the score the greater the preference for the types of organizational membership. Three hundred and sixty-nine students responded on this dimension.

Discriminant analysis demonstrated that a statistically significant difference ($p<.10$) existed among the five learning groups in regard to Organizational Membership, $F(4,364) = 1.99$, $p<.10$. Table XXXIII shows the mean scores for each of the five learning groups on these items. The Decorative Arts and Crafts adult students have the greatest mean raw score, 0.453, on the Business/Professional

TABLE XXXII

SUMMARY OF CRONBACH'S ALPHA ON TELEVISION VIEWING HABITS/PREFERENCES SUBSCALES

Television Viewing Habits/Preferences (N)[1]	Items	Cronbach's Alpha*
Science Fiction (N = 343)	2	0.45
Drama (Commerical TV) (N = 340)	2	0.61
News (N = 337)	3	0.45
Drama (PBS) (N = 333)	2	0.68
Sports (N = 338)	2	0.71
Talk Shows (N = 350)	2	0.45
Situation Comedy (N = 349)	3	0.60
Variety Show (N = 345)	2	0.46
Action/Adventure (N = 343)	3	0.64
TOTAL ITEMS	21	

*The higher the Alpha, the greater the reliability.

[1](N) = number of cases.

TABLE XXXIII

MEAN SCORES OF THE FIVE LEARNING GROUPS ON ORGANIZATIONAL MEMBERSHIP ITEM[1]

Organizational Membership N=369	Group[2] 1 PD 84	2 H&F 62	3 JR 63	4 H&R 96	5 DA 64
Veterans/Patriotic Group	0.00	0.016	0.064	0.073	0.00
Political/Social Action Group	0.036	0.177	0.159	0.094	0.078
Business/Professional Group	0.274	0.323	0.318	0.438	0.453
Labor Union	0.024	0.065	0.064	0.083	0.078
Religious Organ-ization	0.007	0.113	0.127	0.135	0.094
Non-Religious Fraternal Organ.	0.036	0.032	0.095	0.104	0.047
Recreational/Sports Club	0.238	0.242	0.318	0.417	0.125
Hobby Group	0.119	0.177	0.175	0.125	0.219
Civic/Service Organ.	0.167	0.129	0.143	0.146	0.047

[1]Mean scores can range from 0-1.

[2]Groups coded as follows: (1) Personal Development (PD); (2) Home and Family (H & F); (3) Job-Related Subjects and Skills (JR); (4) Hobbies and Recreation (H & R; and (5) Decorative Arts and Crafts (DA).

variable. The smallest mean raw score, 0.00, was obtained by the Personal Development and Decorative Arts and Crafts students on the Veterans/Patriotic variable. (Mean scores ranged from 0 to 1).

Table XXXIV indicates the results of the Organizational Membership items which account for significant differences among the five learning groups and outlines the location of the differences. The discriminant data indicate that the Personal Development students have a greater preference for Recreation/Sports Clubs than the Hobbies and Recreation adult students. The Home and Family students favor Recreation/Sports Clubs and Political/Social Action groups when compared to the Hobbies and Recreation students.

The Job-Related Subjects and Skills adult students have a greater preference for Recreational/Sports Clubs and Political/Social Action groups than the Decorative Arts adult students. When the Hobbies and Recreation students are compared to the Decorative Arts and Crafts students, the former have a preference for Recreational/Sports Clubs, Veterans/Patriotic groups, and Political/Social Actions groups.

A summary of discriminant analysis for Organizational Membership is presented in Table XXXV. The most useful variables in discriminating among the groups based upon a statistical significance level of $p<.10$ are Recreational/Sports club, Veterans/Patriotic group, Political/Social Action group, and Business/Professional group. The uni-

TABLE XXXIV

ORGANIZATIONAL MEMBERSHIP ITEMS ACCOUNTING FOR SIGNIFICANT DISCRIMINANT DIFFERENCES AMONG THE FIVE LEARNING GROUPS AND THE LOCATION OF THE DIFFERENCES

Organizational Memberhsip Items	Group Comparison[a]									
	F(4,364)	1,2	1,3	1,4	1,5	2,3	2,4	2,5	3,4	3,5	4,5
Recreational/Sports Club (4.71)*				X			X			X	X
Veterans/Patriotic Group (3.69)*											X
Political/Social Action Group (3.29*)							X			X	X

NOTE: "x" indicates the group displaying significantly greater organizational membership preference with respect to the specific organizational membership item.

[a]Groups coded as follows: (1) Personal Development; (2) Home and Family; (3) Job Related Subjects and Skills; (4) Hobbies and Recreation; and (5) Decorative Arts and Crafts.

*$p < .10$

TABLE XXXV

SUMMARY TABLE OF DISCRIMINANT ANALYSIS FOR ORGANIZATIONAL MEMBERSHIP ITEMS

Organizational Membership Items	Univariate F-Ratio (4,364)	F to Enter or Remove	Wilk's Lambda	Significance	Rao's V	Change in Rao's V	Significance of Change
Recreational Sports Club	4.713	4.713	0.951	0.001	18.852	18.852	0.001**
Veteran's Patriotic Group	3.165	2.682	0.923	0.000	30.049	11.197	0.024**
Political/ Social Action Group	2.657	2.522	0.898	0.000	40.207	10.157	0.038**
Business/Professional Group	2.131	2.091	0.878	0.000	48.669	8.462	0.076**
Hobby Group	0.957	1.800	0.861	0.000	56.382	7.713	0.103
Civic/Service Organization	1.304	1.311	0.848	0.000	61.868	5.486	0.241
Labor Union	0.780	0.930	0.839	0.000	65.781	3.914	0.418
Religious Organization	0.198	*					
Non-Religious Organization	1.502	*					

NOTE: Entry level for inclusion in the analysis is 0.50.

*Below entry level

**p < .10

variate F-ratio shows that the previously mentioned organizational membership items are statistically significant.

For the population of 369 respondents, the standardized discriminant function data indicate that the Recreational/Sports Club variable was the most important. The group centroid was the Decorative Arts and Crafts group. The percent of "grouped" cases correctly classified was 35.23.

XI. RADIO STATION PREFERENCE ITEM

The Radio Station Preference dimension of the research instrument was designed to determine which radio station the 323 adult students listened to most frequently. The higher the score the greater the preference for listening to a specific radio station. The chi-square analyses show that there is a significant difference at the .10 level (See Appendix F) among the five learning groups concerning radio station preference.

The data reveal that the largest percentage of adult students in this study listened to WRJZ-AM. The second largest percentage of students listened to WNOX-AM. The Hobbies and Recreation group represented the largest radio listening audience. These students preferred listening to WRJZ-AM.

The chi-square analyses revealed that more of the adult students in the Job-Related Subjects and Skills group preferred listening to WIVK-AM/FM than expected. The data

indicated that fewer of the adult students in the Hobbies and Recreation group listened to WNOX-AM than expected.

XII. NEWSPAPER PREFERENCE ITEMS

The Newspaper Preference dimension of the research instrument was designed to measure which newspaper the adult students read. A second question directly related to the newspaper preference item concerned which section of the newspaper the adult students read after first reading the general news on page one. The higher the score the greater the preference for reading a specific newspaper. Two hundred and seventy-six students responded to this dimension.

Discriminant analysis discloses that a statistically significant difference ($p<.10$) does exist among the five learning groups in regard to Newspaper Preference items, $F(4,276) = 1.99$, $p<.10$. Table XXXVI shows the mean scores of the five learning groups on each Newspaper Preference item. The Job-Related Subjects and Skills adult students have the largest mean raw score of 2.64 which occurs on the Knoxville News Sentinel Newspaper Preference item. In contrast, the Hobbies and Recreation adult students have the lowest mean raw score of 1.25 occurring on the Wall Street Journal Newspaper Preference item.

Table XXXVII indicates the results of Newspaper Preference items which account for significant discriminant differences among the five learning groups and gives the

TABLE XXXVI

MEAN SCORES OF THE FIVE LEARNING GROUPS ON EACH NEWSPAPER PREFERENCE ITEM[1]

Newspaper Preference Item	N=276	Group[2] 1 PD 67	2 H&F 46	3 JR 44	4 H&R 75	5 DA 49
Knoxville Journal		1.76	1.83	2.07	1.79	1.73
Knoxville News Sentinel		2.30	2.37	2.64	2.36	2.43
Wall Street Journal		1.27	1.33	1.39	1.25	1.31
The Daily Beacon		2.00	1.57	1.34	1.59	1.67

[1]Mean scores can range from 1-3.

[2]Groups coded as follows: (1) Personal Development (PD); (2) Home and Family (H & F); (3) Job-Related Subjects and Skills (JR); (4) Hobbies and Recreation (H & R); and (5) Decorative Arts and Crafts (DA).

TABLE XXXVII

NEWSPAPER PREFERENCE ITEMS ACCOUNTING FOR SIGNIFICANT DISCRIMINANT DIFFERENCES AMONG THE FIVE LEARNING GROUPS AND THE LOCATION OF THE DIFFERENCES

Newspaper Preferences	F(4,276)	Group Comparisons[a] 1,2	1,3	1,4	1,5	2,3	2,4	2,5	3,4	3,5	4,5
The Daily Beacon (6.25)*		X	X	X	X						

NOTE: "x" indicates the group displaying significantly greater preference with respect to the specific newspaper preference item.

[a]Groups coded as follows: (1) Personal Development; (2) Home and Family; (3) Job Related Subjects and Skills; (4) Hobbies and Recreation; and (5) Decorative Arts and Crafts.

*p <.10

location of the differences. The discriminant analysis reveals that the Personal Development group had a significantly greater preference for The Daily Beacon newspaper than did the four other learning groups.

Table XXXVIII provides a brief abstract of discimiinant analysis for Newspaper Preference items. The table indicates that The Daily Beacon is the most useful variable in discriminating among the groups ($p<.10$), and that The Daily Beacon is the only statistically significant variable.

According to data from the 276 usable responses to the Newspaper Preference section, the general consensus was that The Daily Beacon newspaper variable was the single most important on the standardized discriminant function. The group centroid was the Job-Related Subjects and Skills group The percent of "grouped" cases correctly classified is 32.38 percent.

What section of the newspaper does the adult student read after first reading the General News on page one? Three hundred fifty adult students responded to these questions. The chi-square data indicate that there is a significant difference among the five learning groups for this variable (Appendix F).

The chi-square analyses reveal that more of the adult students in the Hobbies and Recreation learning group read the Sports page after reading the General News than could be expected. The data also reveal that fewer students in

TABLE XXXVIII

SUMMARY TABLE OF DISCRIMINANT ANALYSIS FOR NEWSPAPER PREFERENCE ITEMS

Newspaper Preferences	Univariate F-Ratio (4,276)	F to Enter or Remove	Wilk's Lambda	Significance	Rao's V	Change in Rao's V	Significance of Change
The Daily Beacon	6.25	6.25	0.92	0.000	24.96	24.99	0.000**
Knoxville News Sentinel	1.72	1.59	0.90	0.000	31.71	6.72	0.151
Knoxville Journal	1.39	0.84	0.89	0.001	35.25	3.55	0.471
Wall Street Journal	0.53	*					

NOTE: Entry level for inclusion in the analysis is 0.50.

*Below entry level

**p < .10

the Personal Development learning group read the Sports page of the newspaper than anticipated.

XIII. MAGAZINE PREFERENCES

The Magazine Preference dimension of the research instrument measured which types of magazines the adult students read. The higher the score the greater the preference for reading a specific type of magazine. Discriminant analysis of the 331 student responses reveals that a statistically significant difference ($p < .10$) exists among the five learning groups in regard to Magazine Preference, $F(4,331) = 1.00$, $p \leq .10$. Table XXXIX shows the mean scores for each of the five learning groups on the Magazine Preference items and subscales. The Job-Related Subjects and Skills adult students have the smallest mean raw score (1.10) which occurs on the Black-Oriented magazine preference item while the Home and Family adult students have the largest mean raw score (2.63) which occurs on the News magazine preference subscale (mean scores range from 1 to 3).

Table XL indicates the results of the Magazine Preference items and subscales, accounting for significant discriminant differences among the five learning groups and giving the location of the differences. The discriminant analysis indicates that the Personal Development adult students have a greater preference for Traditional Women's, Family and General/Anthology magazines than the Home and

TABLE XXXIX

MEAN SCORES OF THE FIVE LEARNING GROUPS ON EACH MAGAZINE PREFERENCE SUBSCALE[1]

Magazine Items and Subscales N=331	Groups[2] 1 PD 76	2 H&F 54	3 JR 56	4 H&R 90	5 DA 60
News	2.56	2.63	2.34	2.38	2.54
Traditional Women	2.22	1.71	1.77	1.62	1.58
Workshop/Mechanical	1.20	1.50	1.38	1.76	1.58
Men's	1.64	1.67	1.53	1.83	1.83
Gossip/Tabloid	1.41	1.41	1.43	1.45	1.32
Modern Women	1.87	1.58	1.63	1.57	1.53
Literary/Highbrow	1.68	1.89	1.62	1.72	1.70
Family	1.76	1.65	1.84	1.49	1.41
Sports	1.55	1.61	1.86	1.80	1.78
General/Anthology	2.38	2.30	2.29	2.01	2.03
Black	1.20	1.22	1.19	1.22	1.22
Business	1.50	1.69	1.48	1.59	1.45
Outdoor/Rustic	1.49	1.52	1.59	2.07	1.72

[1]Mean scores can range from 1-3.

[2]Groups coded as follows: (1) Personal Development (PD); (2) Home and Family (H & F); (3) Job-Related Subjects and Skills (JR); (4) Hobbies and Recreation (H & R); and (5) Decorative Arts and Crafts (DA).

TABLE XL

MAGAZINE PREFERENCE ITEMS AND SUBSCALES ACCOUNTING FOR SIGNIFICANT DISCRIMINANT DIFFERENCES AMONG THE FIVE LEARNING GROUPS AND THE LOCATION OF THE DIFFERENCES

Magazine Preference Items and Subscales		Group Comparisons[a]									
	F(4,331)	1,2	1,3	1,4	1,5	2,3	2,4	2,5	3,4	3,5	4,5
Outdoor/Rustic (9.11)*											X
Traditional Women's (7.98)*		X	X	X	X		X				
Family (6.96)*		X		X	X		X		X	X	X
News (6.01)*			X	X	X	X	X				
Workshop/Mechanical (5.41)*						X					X
General/Anthology (4.99)*		X	X	X	X		X		X		

NOTE: "x" indicates the group displaying significantly greater preference with respect to specific magazine preference items.

[a]Groups coded as follows: (1) Personal Development; (2) Home and Family; (3) Job-Related Subjects and Skills; (4) Hobbies and Recreation and (5) Decorative Arts and Crafts.

*$p < .05$

**$p < .10$

Family adult students. The Personal Development students have a greater preference for Traditional Women's, News, and General/Anthology magazines than the Job-Related Subjects and Skills students. Personal Development students have more of a preference than Hobbies and Recreation and Decorative Arts and Crafts students for Traditional Women's, Family, News and General Anthology Magazines.

The Home and Family students favor News and Workshop/Mechanical magazines when compared to the Job-Related Subjects and Skills students. The Home and Family adult students, in comparison to the Hobbies and Recreation adult students, prefer Traditional Women's, Family, News, and General Anthology magazines.

The Job-Related Subjects and Skills students' prefer Family and General/Anthology magazines more than the Hobbies and Recreation students. The discriminant analysis indicates a noteworthy preference among the Job-Related Subjects and Skills group for Family magazines more so than among the Decorative Arts and Crafts students. The Hobbies and Recreation adult students prefer Outdoor/Rustic, Family, and Worship/Mechanical magazines when compared to the Decorative Arts and Crafts students.

A summary of discriminant analysis for Magazine Preferences items and subscales is presented in Table XLI. The most useful variables in discriminating among the groups, based upon a statistical significance level ($p < .10$) were

TABLE XLI

SUMMARY TABLE OF DISCRIMINANT ANALYSIS FOR MAGAZINE PREFERENCE ITEMS AND SUBSCALES

Magazine Preference	Univariate F-Ratio (4,331)	F to Enter or Remove	Wilk's Lambda	Significance	Rao's V	Change in Rao's V	Significance of Change
Outdoor/Rustic	9.11	9.11	0.90	0.000	36.42	36.42	0.000**
Traditional Women's	8.54	6.89	0.83	0.000	64.17	28.35	0.000**
Family	5.28	4.90	0.78	0.000	85.25	20.48	0.000**
News	2.77	3.11	0.76	0.000	98.28	13.03	0.011**
Workshop/ Mechanical	8.81	2.94	0.73	0.000	111.83	13.54	0.009**
General/ Anthology	3.85	2.83	0.71	0.000	125.61	13.79	0.008**
Business	1.16	1.51	0.69	0.000	132.23	6.62	0.158
Men's	2.78	1.49	0.68	0.000	138.94	6.71	0.152
Sports	2.14	1.55	0.67	0.000	145.68	6.74	0.151
Literary/ Highbrow	1.20	0.66	0.66	0.000	148.62	2.95	0.567
Modern Women's	3.23	0.98	0.65	0.000	153.04	4.42	0.352
Gossip/Tabloid	0.66	*					
Black	0.05	*					

NOTE: Entry level for inclusion in the analysis is 0.50.

*Below entry level

**$p < .10$

Outdoor/Rustic, Traditional Women's, Family, News, Workshop/ Mechanical, Men's, General/Anthology, Sports, and Modern Women's. The univariate F-ratio indicates that the Outdoor/ Rustic, Traditional Women's, Family, News, Workshop/Mechanical and General/Anthology magazines were the only statistically significant variables.

The usable data from 331 respondents indicate that the Outdoor/Rustic magazine subscale was the most important on the standardized discriminant function. The most important group centroid was the Hobbies and Recreation group. The percent of "grouped" cases correctly classified was 41.37 percent.

A summary of Cronbach's Alpha on the Magazine Preference subscale is in Table XLII. The largest reliability coefficient was 0.93 on the Traditional Women's and Workshop/ Mechanical subscales.

XIV. SUMMARY OF FINDINGS

The research sought to identify if psychographics and lifestyle analysis has power to distinguish among adult learners enrolled in different types of learning activities. A stratified random sample of 500 adult students enrolled in non-credit courses in the Department of Non-Credit Programs, Division of Continuing Education at The University of Tennessee, Knoxville, during the Winter Quarter of 1978 comprised the study group. Three hundred and sixty-nine

TABLE XLII

SUMMARY OF CRONBACH'S ALPHA ON MAGAZINE PREFERENCE SUBSCALE

Magazine Preference (N)[1]	Items	Cronbach's Alpha*
News (N = 354)	2	.79
Traditional Women's (N = 349)	2	.93
Workshop/Mechanical (N = 348)	2	.93
Men's (N = 346)	2	.70
Gossip/Tabloid (N = 345)	2	.52
Modern Women's (N = 342)	2	.72
Literary/Highbrow (N = 345)	2	.79
Family (N = 345)	2	.76
TOTAL ITEMS	16	

*The higher the Alpha, the greater the reliability.

[1](N) = number of cases.

replies, or 73.8 percent of the original sample, were received.

Subjects were selected by the type of non-credit courses in which they enrolled. There were five types of courses into which the majority of the course offerings were easily classified. Classification was based primarily on research conducted by Johnstone and Riveria (1965) which categorized adult education courses into nine broad areas (See Appendix A).

Participants responded to the Opinion, Interest, Motivation for Participation, and Job Satisfaction items and subscales on a six-part, Likert-type scale ranging from strongly disagree to strongly agree. On items in the Activities sections, the participants responded by indicating along a frequency continum whether they have engaged or would engage in each particular activity. The five learning groups (independent variables) were compared on each of the ten psychographic and lifestyle dimension (dependent variables) separately rather than as a whole.

The study results are presented in ten sections corresponding to the ten psychographic and lifestyle dimensions of the research instrument. Discriminant analysis was conducted on each of the following dimensions: opinions, interest, motivation for participation, activities in the past year, television viewing habits, magazine preferences, job satisfaction and demographic scores (age, family income, highest level of education attained, number of children).

Chi-Square analysis was conducted on radio station preferences, sex, marital status, religious affiliation, occupation, zip code, number of non-credit programs taken previously, and first page of newspaper read after the General News on page one. The level of significance used for all statistical tests was $p < .10$.

Factor analysis was conducted on the Interests and Activities in the Past Year items to structure a correlation matrix. After the "varimax rotated factor matrix" factor analyzed the items and clusters were achieved, factor scores were generated to indicate the extent to which the adult students were enrolled for each of the orientations (factors). Factor scoring took into account the contribution (loading) made to each factor by each of the items.

Cronbach's Alpha (split-halves) and Pearson's product-moment correlation coefficients were used to estimate the reliability of responses on each dimenison and the overall reliability of the research instrument. Standardized discriminant function coefficients are presented. These represent the relative contribution of the variables to the respective function. A function is a combination of several variables. Group centroids are the mean discriminant scores for each group on the respective function.

Major findings of the research follow in Chapter V.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

The primary purpose of this study was to investigate the potential of psychographics and lifestyle analysis for segmenting the actual market in continuing education so that program and promotion related decisions could be made more effectively. The basic research question was whether or not the psychographics and lifestyle analysis had power to distinguish among adult learners currently enrolled in the five different types of learning activities. Specifically, did psychographic and lifestyle data disclose that current participants in five different learning activities had different learning interests, opinions on social and educational issues, motivations for participation, feeling of job satisfaction, leisure activities, television viewing habits, and organizational membership? Participants in the study (population) were pursing educational activities within the categories of Home and Family, Decorative Arts and Crafts, Hobbies and Recreation, Personal Development and Job-Related Subjects and Skills.

Because of financial, human resource and space utilization constraints, one difficult task that administrators face

is determining what programs to offer. These administrators make significant investments in terms of human and material resources when they develop and offer courses. If a course fails to meet the education needs of the target population, or if insufficient numbers of students enroll in a course, then there will be a loss on the return from this investment.

Market research can provide continuing and adult education with models to help determine the actual needs and interests of the consumers. By the careful manipulation of each element of the marketing mix (program, promotion, price, and place) the university or college is able to exchange values with the adult students to insure a mutually successful quality product.

Psychographics and lifestyle analysis have provided the marketing researcher with valuable consumer information about the usage of a product or service. Marketing researchers believe that psychographics and lifestyle analysis can provide useful insights into markets within consumer groups (market segmentation). Market segmentation permits the researcher to identify the heavy users, light and nonusers of a product or service.

Administrators can define three types of markets in the following manner: The actual market is all those persons who are currently enrolled or are interested and have indicated on the market analysis survey an interest in participating in part-time courses of study at the

institution. The potential market is all persons within a 25 mile radius of the institution. The non-market is that group participating in part-time courses of study at some other institution. After having defined the institution's market, then the administrator must segment the actual market so appropriate learning experiences can be developed and the most effective promotional activities conducted to attract this targeted audience.

Psychographics and lifestyle analysis have been employed within the last decade. Lifestyle analysis relates to the activities that the student becomes involved in; psychographics deals with attitudes, opinions and interest. Psychographics and lifestyle analysis provide the researcher with valuable data on the activities, interest, opinions, and attitudes of the consumer, which is more than demographics can provide. If administrators know the attitudes and opinions of adults about social, political, legal, and economic issues and know their leisure interests, then they would have data to support decisions in planning and promoting adult education programs and activities.

A review of education and marketing literature on psychographics and lifestyle analysis as related to the field of continuing education revealed few previous studies. One study was conducted by Rinella (1977) at the University of Maryland, College Park, Maryland. Other research, such as that by Wells (1974) and Dorney (1971) in marketing,

suggested that additional studies about the techniques of psychographics and lifestyle analysis be conducted on other markets. Wells (1974) and Dorney's (1971) studies had been limited to single markets. Rinella (1971) suggested that more research was necessary to improve psychographics and lifestyle research as a marketing tool and to improve the decision making process for administrators when they related their programs to the various adult communities.

This research analyzed whether psychographics and lifestyle analysis had any power to distinguish among adult learners currently enrolled in five different types of learning activities. A stratified random sample of 500 adult students enrolled in non-credit courses in the Department of Non-Credit Programs, Division of Continuing Education at The University of Tennessee, Knoxville during the Winter Quarter of 1978 comprised subjects of the study. A survey instrument was distributed to this population. Three hundred and sixty-nine replies, or 73.8 percent of the questionnaires were returned. Information from these returns was quantified and displayed in a series of tables in the preceding chapter. Table XLIII presents summary analyzes of the variables through discriminant analysis or chi-square on each dimension and the location of these variables among the five learning groups.

TABLE XLIII

SUMMARY TABLE OF SIGNIFICANT STANDARDIZED DISCRIMINANT FUNCTIONS[1] AND CHI-SQUARES[1] BY THE FIVE LEARNING GROUPS

Dimension	GROUPS[2] PD	H&F	JR	H&R	DA
Demographic					
Number of Children			DF_{-1}		
Highest Level of Education Attained		DF_{-1}			
Marital Status	X^2_{-2}			X^2_{-1}	
Sex	X^2_{-1}			X^2_{-2}	
Occupation	X^2_{-2}				X^2_{-2}
Opinion					
Family Structure		DF_{-1}			
Teaching Approach		DF_{-1}			
Law and Order					DF_{-2}
Interest					
Personal Awareness	DF_{-1}				
Cultural and Educational			DF_{-2}		
Motivation for Participation					
Professional Advancement			DF_{-1}		
External Expectation			DF_{-2}		

TABLE XLIII (Continued)

Dimension	GROUPS[2] PD	H&F	JR	H&R	DA
Television Viewing Habits/ Preference					
Sports	DF_{-1}				DF_{-1}
Action/Adventure			DF_{-2}		
Magazine Preference					
Outdoor/Rustic				DF_{-1}	
Traditional Women's	DF_{-2}				
Organizational Membership					
Recreational/Sports Clubs					DF_{-1}
Business/Professional	DF_{-2}				
Newspaper Preferences					
The Daily Beacon			DF_{-1}		
Knoxville Journal			DF_{-2}		
Amusement page read first				X^2_{-1}	
Editoral page read first	X^2_{-2}				
Sports page read first				X^2_{-2}	
Activities in the Past Year					
Active Recreational			DF_{-1}		
Educational and Cultural			DF_{-2}		
Radio Station Preference					
WRJZ-AM			X^2_{-1}		
WNOX-AM	X^2_{-2}				

TABLE XLIII (Continued)

Dimension	GROUPS[2] PD	H&F	JR	H&R	DA

[1]Discriminant Analysis Functions and Chi-Squares are coded as follows:

DF_{-1} = Discriminant Analysis First Function

DF_{-2} = Discriminant Analysis Second Function

X^2_{-1} = Chi-Square, Largest

X^2_{-2} = Chi-Square, Second Largest

[2]Groups coded as follows: (1) Personal Development (PD); (2) Home and Family (H&F); (3) Job-Related Subjects and Skills (JR); (4) Hobbies and Recreation (H&R); and (5) Decorative Arts and Crafts (DA).

II. FINDINGS

Major findings through standardized discriminant function analysis were:

1. Level of education and number of children were found as significant variables on the Demographic dimension of the research instrument, with the Job-Related Subjects and Skills and Home and Family learning groups providing the largest number of responses to these variables.

2. The most significant variables on the Opinion dimension were the Family Structure and Teaching Approach subscales, with the largest number of responses to these variables recorded by the Home and Family students.

3. The least significant factor on the Interest dimension of the research instrument was the Personal Awareness factor, while the most significant factor was Crafts and Hobbies with the Personal Development students supplying the largest concentration of positive and negative interests in both the Personal Awareness and Crafts and Hobbies factors.

4. The largest subscale response on the Motivation for Participation dimension was the Professional Advancement subscale, with the largest number of responses to this subscale reported by the Job-Related Subjects and Skills students.

5. The least significant factor on the Activities in the Past Year dimension of the research instrument was

the Active Recreational factor, with the largest number of negative responses on this factor recorded by the Job-Related Subjects and Skills students.

6. On the Television Viewing Habits/Preference dimension of the research instrument the most significant subscale was the Sports program subscale, with the Decorative Arts and Crafts and Personal Development students indicating the largest preference on this subscale.

7. The most significant variable on the Organizational Membership dimension was the Recreational/Sports club variable, with the largest concentration of responses reported by the Decorative Arts and Crafts students.

8. The single most significant item on the Newspaper Preference dimension was a student newspaper, The Daily Beacon, with the greatest response from Job-Related Subjects and Skills students.

9. The most significant subscale on the Magazine Preference dimension was the Outdoor/Rustic magazine subscale, with the Hobbies and Recreation students preferring these magazines to other types of periodicals.

Major findings through chi-square analysis were:

1. On the Demographic dimension of the research instrument, the marital status, sex, and occupation variables differentiated significantly among the five learning groups.

2. On the Radio Station Preference dimension, the data revealed that a significant percentage only of Hobbies and Recreational students listened to WRJZ-AM.

3. A significantly larger number of the adult students in the Hobbies and Recreation learning groups only read the sports page after they read the general news on page one of the daily newspaper.

4. Significantly fewer adult students in the Personal Development learning groups only read the sports page of the newspaper than anticipated.

Additional findings were;

1. Thirteen percent of the research respondents were non-white.

2. Job Satisfaction was not a significant dimension as determined by the analysis of variance.

3. Forty-two percent of the adult students have previously taken one or more non-credit courses at The University of Tennessee, Knoxville.

4. The correlation coefficients on each dimension and the overall reliability of the instrument were greater when scored by Cronbach's Alpha (range 50 percent to 96 percent and an overall of 94 percent) than those scores on the Pearson's product-moment correlation (range 35 percent to 93 percent and an overall of 90 percent).

5. Reliability scores could not be prepared on Organizational Membership and Radio Station Preference since these two dimensions provide only one set of scores.

6. The instrument was found to have face, construct, and content validity as a function of its relationship to an

earlier research instrument (Rinella, 1977) and field testing in Tennessee (1975 and 1977).

7. The level of formal education of the actual market positively influences the rate of which adult students participate in continuing education (this confirms the earlier findings of Courtenay, 1976, and Johnstone and Rivera, 1962, and London, et al., 1963).

8. Younger, urban residents with higher levels of education and occupational skills are more responsive to participating in continuing education programs. (This is supporting the findings of Mansfield, 1976.)

III. CONCLUSIONS

Based upon the findings of the study and the review of recent literature on psychographics and lifestyle analysis, the following conclusions are presented:

1. Adult students enroll in the continuing education activities based on their interests in personal development home and family, job-related subjects and skills, hobbies and recreation, and decorative arts and crafts.

2. Adult students currently enrolled in continuing education activities are more responsive to continuing education programs that are planned by administrators who consider their opinions, interest, motivation for participation, activities within the past year, television viewing habits, newspaper preferences, organizational memberships, magazine

preferences, and radio station listening preferences with lesser weight placed upon job satisfaction.

3. When planning actual market courses which treat subject matter related to personal development:

A. Administrators will receive the strongest response from females with professional/technical occupational background;

B. Course promotion for the entire actual market will be most responded to through presentation on sports-oriented television shows; and

C. Least interest toward educational activities that will assist in attaining greater personal awareness is reflected by those within the actual market which are primarily interested in personal development.

4. When planning actual market courses which treat subject matter related to home and family;

A. Course promotion will be most responded to if it demonstrates conservative opinions toward family structure and teaching approaches; and

B. Course content must be delivered on a higher educational level.

5. When planning actual market courses which treat subject matter related to job related subjects and skills:

A. Administrators will have greater response from adult students who have children and have an average family

income greater than the income of members of the four other learning groups;

B. Adult students will be motivated to participate in these courses for professional reasons such as gaining higher status or increasing their abilities in their job;

C. Course promotion for the actual market will be least receptive to active recreational activities because the adult students will be seeking opportunities to improve their skills, incomes, and standards of living.

D. Course promotion for the entire actual market will get the most response if it is carried in The Daily Beacon.

6. When planning actual market courses which treat subject matter related to hobbies and recreation:

A. Administrators will receive the strongest response from married adult students that read outdoor/rustic magazines (and thus these magazines make logical outlets for the promotional efforts);

B. Course promotion for the entire actual market will be most responded to through advertisements on the amusement page of the local newspaper; and

C. Course promotion will be most responded to through radio ads and advertisements on WRJZ-AM.

7. When planning actual market courses which treat subject matter related to decorative arts and crafts, course promotion for the entire actual market will be most responded

to if it is presented or announced on television sports clubs (country/golf/yacht/tennis/health clubs).

8. Psychographic, lifestyle and demographic data are essential in planning and promoting adult education programs to 58 percent of the actual market who have never previously participated in non-credit programs.

9. A more discrete segmentation of the market is possible by use of discriminant analysis than through use of multivariate analysis of variance as in the case of the Rinella study or the more common general approach of inspection of survey data.

IV. RECOMMENDATIONS

This section contains recommendations based upon the findings and conclusions of this study as follows:

1. Each educational institution should "personalize" future psychographic and lifestyle analysis surveys for the unique needs of their own actual markets.

2. Future psychographics and lifestyle analysis study should be directed toward use varied means of data gathering and analysis in an attempt to reduce the time needed for the study without a concurrent reduction in actual market response to survey or loss of accuracy in interpretation of results.

3. Subsequent application of psychographics and lifestyle analysis for continuing education should be

minimally comprised of items related to Interest, Job Satisfaction, Activities in the Past Year, Television Viewing Habits/Preferences, Magazine Preferences, these items should be supplemented by a Demographic section to attain the highest reliability of findings through utilization of survey format.

4. Related research employing psychographics and lifestyle analysis should be accomplished with the continuing education potential market. This is a different population than that comprising the actual market of this study.

5. Perhaps the best way to obtain students for continuing education courses is to advertise among current and past students (since 42 percent of respondents to this study had prior course experience in continuing education).

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APPENDICES

APPENDIX A

JOHNSTONE AND RIVERA'S CLASSIFICATION OF COURSES

JOHNSTONE AND RIVERA'S CLASSIFICATION OF COURSES

TYPE OF SUBJECT MATTER

1. Job-related subjects and skills

   a) Technical courses: health professions
   b) Technical courses: all other spheres
   c) Teacher training courses
   d) Professional courses: all other spheres
   e) Business administration or management
   f) Sales or advertising skills
   g) Office management
   h) Office machines (excluding typewriter)
   i) General office skills (including typewriter)
   j) Auto mechanics and other machine skills
   k) Other skilled trades
   l) Operative skills
   m) Service skills in the health professions
   n) Service skills in the protection and security field
   o) Personal service skills
   p) All other job-related subjects and skills

2. Hobbies and recreation

   a) Athletic recreation
   b) Decorative arts and crafts
   c) Dancing lessons
   d) Bridge lessons
   e) Music (performing)
   f) Music (non-performing)
   g) Art (performing)
   h) Art (Non-performing)
   i) Technical arts and hobbies
   j) All other hobbies and recreations

3. Religion, morals, and ethics

   a) Traditional religious training
   b) Religion applied to everyday life
   c) All other subjects on religion, morals, or ethics

4. General education

   a) Foreign languages
   b) Mathematics or statistics
   c) English literature or composition

TYPE OF SUBJECT MATTER (Continued)

d) History (excluding history of religion, art, or music)
e) Sciences
f) Psychology
g) Social sciences (excluding political science)
h) Great Books courses
i) All other general education subjects

5. Home and family life

a) Sewing or cooking
b) Home improvement skills
c) Gardening
d) Child care
e) All other home and family life subjects

6. Personal development

a) Physical fitness
b) Speed reading
c) Dale Carnegie or other leadership training courses
d) Speech or public speaking
e) All other personal development subjects

7. Current events, public affairs, and citizenship

a) General political education (including political science)
b) Current events
c) Courses on communism
d) Civil defense
e) Americanization and citizenship
f) All other public affairs courses

8. Agriculture

a) Farming or market gardening
b) All other agricultural topics

9. Miscellaneous subject matter

a) Driver training
b) Military science

TYPE OF SUBJECT MATTER (Continued)

c) Miscellaneous other
d) Subject matter not reported or uncodeable

SOURCE: Volunteers for Learning, report of a study conducted by the National Opinion Research Center, 1965, pp. 49-50.

APPENDIX B

INSTRUMENT

INSTRUMENT

Dear Adult Student:

A major responsibility of the Department of Non-Credit Programs at The University of Tennessee, Knoxville is to offer learning experiences that meet the needs of its adult students. In order to do this, the Department needs to become more acquainted with the adults it is trying to serve--not only their ages, occupations, etc., but also their opinions, interests and activities. The purpose of this study is to investigate the potential of psychographic and lifestyle analyses for segmenting the actual market in continuing education so that program--and promotion--related decisions can be made more effectively. The following questionnaire is designed to assess these qualities.

We hope that you will volunteer to complete the questionnaire. Please keep in mind that your answers are anonymous. We are interested in the responses of our adult learners as a group, not individuals. No personal identification of any sort will appear in written reports or summaries of the study, although references will be made to categorized groups of continuing education learners.

By completing the questionnaire, you will be indicating your consent and willingness to participate voluntarily in the study. However, you are free not to answer the questions and thus, withdraw your consent to be a participant in the study without prejudice toward you by anyone.

It takes approximately 20 minutes to complete the questionnaire. So, please feel free to respond to each item honestly. It is very important that you read all directions carefully and respond to all items in sections that apply to you. Your assistance will be a valuable contribution for the development of programs that best serve the adult community.

If you have any inquiries concerning the procedures of this study, they will be answered immediately by contacting William T. Nichols, 974-6688. Thank you very much for your cooperation.

COURSE INFORMATION

What is the name of the course in which you are completing this questionnaire?

_____

Have you taken any other Non-Credit Courses offered by the Department of Non-Credit Programs, The University of Tennessee, Knoxville?

YES _____ NO _____

If so, please write their names and when you took them:

_____ _____

_____ _____

_____ _____

Have you completed this questionnaire before? YES ___ NO ___

DEMOGRAPHIC INFORMATION

Please circle appropriate response. BE SURE TO RESPOND TO EACH CATEGORY

AGE:
(1)under 20 (2) 20-30 (3) 31-40 (4) 41-50 (5) 51-59
(6) over 60

SEX:
(1) Male (2) Female

RACE:
(1) Black (2) White (3) Oriental
(4) Other

MARITAL STATUS:
(1) Single (2) Married (3) Separated (4) Divorced
(5) Widowed

RELIGIOUS AFFILIATION:
(1) Protestant (2) Catholic (3) Jewish (4) Other _____

INDICATE HIGHEST LEVEL OF EDUCATION ATTAINED:
(1 2 3 4 5 6 7 8) (9 10 11 12) (13 14 15 16) (M.S.)
(Ph.D.)

OCCUPATION:
(1) Professional/ Technical (2) Manager/ Proprieter (3) Clerical (4) Sales-person

(5) Skilled worker/ laborer (6) Homemaker (7) Retired

FAMILY INCOME (If married and spouse is working, indicate TOTAL family income):
(1) under 5,000/yr. (2) 5,000-9,999/yr. (3) 10,000-14,999/74. (4) 15,000-19,999/yr.

(5) 20,000-24,999/yr. (6) 25,000 and over/yr.

NUMBER OF CHILDREN: _____ ZIP CODE: _____

ABOUT INTERESTS AND OPINIONS

In this section are a number of statements about interests and opinions. For EACH statement we would like to know if you personally disagree or agree with the statement. After each statement there are six numbers from 1-6. The lower the number the more you tend to disagree with the statement. The HIGHER the number, the more you tend to AGREE with the statement. The numbers from 1-6 may be described as follows:

Definitely Disagree	Generally Disagree	Moderately Disagree	Moderately Agree	Generally Agree	Definitely Agree
1	2	3	4	5	6

For each statement please circle the number that best describes your true feelings about that statement. THERE ARE NO RIGHT OR WRONG ANSWERS. WE WOULD LIKE YOUR HONEST OPINION ABOUT EACH OF THE STATEMENTS. You may think that some statements are similar. Actually, NO TWO STATEMENTS ARE EXACTLY ALIKE, SO BE SURE TO CIRCLE ONE NUMBER (AND ONLY ONE NUMBER) FOR EACH STATEMENT.

	DEF. DISAGREE					DEF. AGREE
An honest person cannot get elected to high political office	1	2	3	4	5	6
By and large, I think that politicians are doing a good job of solving our problems.	1	2	3	4	5	6

	DEF. DISAGREE					DEF. AGREE
I would like to get together with a group of people on a regular basis to discuss world events and foreign policy	1	2	3	4	5	6
I would like to go on a guided tour with a historian and visit some of the interesting places in our area	1	2	3	4	5	6
I often wish there were a counselor I could talk with to discuss personal or vocational problems	1	2	3	4	5	6
The sentences handed down to criminals are usually too light	1	2	3	4	5	6
One has a right to break a law that he/she feels is immoral	1	2	3	4	5	6
I would like to build a radio, TV, etc. from an electronics kit	1	2	3	4	5	6
I would like to work with wood	1	2	3	4	5	6
I would like to take a "Consumer Survival Kit" course that taught me what to look for, and how to get a fair shake when buying a home, car, furniture, appliances, etc.	1	2	3	4	5	6
Many companies took advantage of the energy crisis to increase their profits unfairly	1	2	3	4	5	6
Most big companies are just out for themselves	1	2	3	4	5	6
American business should have a greater sense of social responsibility	1	2	3	4	5	6
Businesses spend too much money lobbying and not enough on improving consumer products	1	2	3	4	5	6
I wish I knew more about economics so that I would really understand what is happening to our economy.	1	2	3	4	5	6

	DEF. DISAGREE					DEF. AGREE
These days a person needs to take a course to learn how to manage his/her money better	1	2	3	4	5	6
I would like to know more about how the stock market works and how a person can invest in it	1	2	3	4	5	6
It would be interesting to meet regularly with a group of people and discuss a book we have all read	1	2	3	4	5	6
A woman's place is in the home	1	2	3	4	5	6
Even today women live under unfair restrictions that ought to be done away with . .	1	2	3	4	5	6
A woman should have important activities and interests outside the home whether it be a job, community or church work . . .	1	2	3	4	5	6
It is somehow unnatural to put women in authority over men	1	2	3	4	5	6
Sometimes I think that I have missed something because I have never learned more about art and classical music . . .	1	2	3	4	5	6
I would like to learn to paint, draw, or sculpture	1	2	3	4	5	6
I would like to learn how to prepare gourmet meals	1	2	3	4	5	6
Some equality in marriage is a good thing, but by and large the husband ought to have the main say-so in family matters	1	2	3	4	5	6
In making family decisions, parents ought to take the opinions of their children into account	1	2	3	4	5	6
We ought to do more for those less fortunate than we are	1	2	3	4	5	6
These days minorities are getting more opportunities than they deserve	1	2	3	4	5	6

	DEF. DISAGREE					DEF. AGREE
I would never live next door to someone of a different race	1	2	3	4	5	6
I believe in looking out for myself and my family and letting others shift for themselves	1	2	3	4	5	6
It's a good idea for everyone to learn to do his/her own automobile maintenance . .	1	2	3	4	5	6
I would like to learn more about photography	1	2	3	4	5	6
Adults should have an opportunity to assist in planning their learning experiences .	1	2	3	4	5	6
I don't like classes where the teacher just lectures	1	2	3	4	5	6
I like to garden	1	2	3	4	5	6
I have always wanted to play the piano or guitar	1	2	3	4	5	6
I would like to take a course in self defense	1	2	3	4	5	6
Despite what some people say pollution really doesn't bother	1	2	3	4	5	6
It's really a shame to see our lakes and streams being polluted	1	2	3	4	5	6
If America is going to progress, we'll just have to put up with pollution . . .	1	2	3	4	5	6
I really get angry when I see the chimney of a factory blowing smoke into the air .	1	2	3	4	5	6
Our laws give too much protection to criminals	1	2	3	4	5	6
I am in favor of strict enforcement of all laws	1	2	3	4	5	6

	DEF. DISAGREE					DEF. AGREE
Whatever some people say, "Spare the rod and spoil the child" still holds true, even in these modern times	1	2	3	4	5	6
If children are allowed to talk back to their parents, they will lose respect for them	1	2	3	4	5	6
Even though I try my best to raise my children, I would like to take a course in how to be a more effective parent . .	1	2	3	4	5	6
I often read the Bible	1	2	3	4	5	6
Religion plays an important part in my life	1	2	3	4	5	6
It would be a good idea for me to learn the metric system since it will be in general use before too long	1	2	3	4	5	6
I'd like to take a Dale Carnegie course for self improvement	1	2	3	4	5	6
All cigarette smokers should try and "kick the habit".	1	2	3	4	5	6
Everyone should have a hobby	1	2	3	4	5	6
I would like to know more about the proper care of house plants	1	2	3	4	5	6
I have always wanted to speak another language	1	2	3	4	5	6
I enjoy discussions about politics . . .	1	2	3	4	5	6
I would be interested in meeting regularly with a health professional who would help me plan and maintain a diet and exercise program	1	2	3	4	5	6
I would like to learn more about financial planning for retirement	1	2	3	4	5	6

Below is a list of statements about why people take courses. In the same way you responded to the previous statement, INDICATE HOW MUCH YOU DISAGREE OR AGREE WITH EACH STATEMENT. PLEASE BE SURE TO RESPOND TO EACH STATEMENT.

	DEF. DISAGREE					DEF. AGREE
I am taking this course to seek knowledge for its own sake	1	2	3	4	5	6
I am taking this course to make new friends	1	2	3	4	5	6
I am taking this course to get relief from boredom	1	2	3	4	5	6
I am taking this course to give me higher status in my job	1	2	3	4	5	6
I am taking this course to comply with instructions from someone else	1	2	3	4	5	6
I am taking this course to learn just for the sake of learning	1	2	3	4	5	6
I am taking this course to increase my abilities for my job	1	2	3	4	5	6
I am taking this course to carry out the expectations of someone with formal authority	1	2	3	4	5	6
I am taking this course to get a break from the routine of home or work	1	2	3	4	5	6
I am taking this course to fulfill a need for personal associations and friendships .	.	2	3	4	5	6

Below is a list of statements about how people feel about their jobs. IF YOU HAVE A JOB, INDICATE HOW MUCH YOU DISAGREE OR AGREE WITH EACH STATEMENT. IF YOU DO NOT HAVE A JOB, PLEASE GO ON TO THE NEXT SECTION.

	DEF. DISAGREE					DEF. AGREE
My job is like a hobby to me	1	2	3	4	5	6
I am disappointed that I ever took my present job	1	2	3	4	5	6

	DEF. DISAGREE					DEF. AGREE
I enjoy my work more than my leisure time	1	2	3	4	5	6
I am often bored with my job	1	2	3	4	5	6
Most of the time I have to force myself to go to work	1	2	3	4	5	6
I feel that my job is more interesting than others I could get	1	2	3	4	5	6
I definitely dislike my work	1	2	3	4	5	6
Most days I am enthusiastic about my work	1	2	3	4	5	6
Each day of the week seems like it will never end	1	2	3	4	5	6
I am interested in taking courses that will help me get ahead in my present job or prepare me for a new job	1	2	3	4	5	6

ACTIVITIES IN PAST YEAR

In this section are a number of activities that YOU, YOURSELF, may or may not have engaged in during the past year. For EACH activity, please circle the appropriate "X" to indicate how often during the past year YOU, YOURSELF, have engaged in this activity. If you have not engaged in one of the listed activities during the past year, circle the "X" labeled "None". PLEASE MAKE SURE THAT YOU RESPOND TO EACH ACTIVITY AND THAT YOU CIRCLE JUST ONE "X" FOR EACH ACTIVITY.

	Times						
	None	1-4	5-8	9-12	13-24	25-51	52 or more
Did art work (painting, drawing, photography, sculpture etc.)	X	X	X	X	X	X	X
Performed in amateur dramatics	X	X	X	X	X	X	X
Visited an art gallery or museum	X	X	X	X	X	X	X

	Times						
	None	1-4	5-8	9-12	13-24	25-51	52 or more
Went to a classical concert	X	X	X	X	X	X	X
Wrote a poem, story, or song	X	X	X	X	X	X	X
Sang or played a musical instrument	X	X	X	X	X	X	X
Went on a trip outside the U.S.	X	X	X	X	X	X	X
Went snow skiing	X	X	X	X	X	X	X
Did volunteer or community work	X	X	X	X	X	X	X
Went out to dinner to a restaurant	X	X	X	X	X	X	X
Went to a pop, country, or rock concert	X	X	X	X	X	X	X
Went dancing	X	X	X	X	X	X	X
Went to an organization meeting	X	X	X	X	X	X	X
Entertained people in my home	X	X	X	X	X	X	X
Drank beer	X	X	X	X	X	X	X
Went bowling	X	X	X	X	X	X	X
Played pool or billiards	X	X	X	X	X	X	X
Played poker	X	X	X	X	X	X	X
Played golf	X	X	X	X	X	X	X
Attended a sporting event	X	X	X	X	X	X	X
Played tennis	X	X	X	X	X	X	X
Jogged or did calesthenics	X	X	X	X	X	X	X
Played handball, paddleball	X	X	X	X	X	X	X
Played basketball	X	X	X	X	X	X	X
Went swimming	X	X	X	X	X	X	X
Went water skiing	X	X	X	X	X	X	X
Went boating	X	X	X	X	X	X	X
Went hunting or fishing	X	X	X	X	X	X	X
Went hiking, backpacking, camping	X	X	X	X	X	X	X
Went to an auto race	X	X	X	X	X	X	X
Went to a movie	X	X	X	X	X	X	X
Cooked outdoors	X	X	X	X	X	X	X
Went on a picnic	X	X	X	X	X	X	X
Worked on a do-it-yourself job around the house	X	X	X	X	X	X	X
Attended church	X	X	X	X	X	X	X

	Times						
	None	1-4	5-8	9-12	13-24	25-51	52 or more
Played a parlor game (bingo, Monopoly, checkers, chess etc.)	X	X	X	X	X	X	X
Played with the children	X	X	X	X	X	X	X
Went on a vacation	X	X	X	X	X	X	X
Did some deep thinking	X	X	X	X	X	X	X
Prayed	X	X	X	X	X	X	X
Went to a library	X	X	X	X	X	X	X
Did a crossword puzzle	X	X	X	X	X	X	X
Worked on a collection (stamps, etc.)	X	X	X	X	X	X	X
Read a book	X	X	X	X	X	X	X
Went for a relaxing walk	X	X	X	X	X	X	X
Did some sewing, knitting, etc.	X	X	X	X	X	X	X
Brought work home from my job	X	X	X	X	X	X	X
Attended a lecture (not a class)	X	X	X	X	X	X	X
Smoked a cigarette (not pipe, cigar)	X	X	X	X	X	X	X
Drank wine	X	X	X	X	X	X	X

What radio station do you listen to most? AM or FM (circle one)

WJBE-AM	WBIR-FM
WNOX-AM	WEZK-FM
WKGN-AM	WUOT-FM
WIVK-AM	WIVK-FM
WRJZ-AM	
WKXV-AM	

	None	<½ hr.	½-2 hrs	2-4 hrs	4-6 hrs	6-8 hrs	More
On an average weekday how many hours do you watch T.V.?	____	___	___	___	___	___	____
On an average weekend, including both Saturday and Sunday, how many hours do you watch T.V.?	____	___	___	___	___	___	____

Below is a list of newspapers. Please indicate (✓) if you read each newspaper: Almost Never (ALMOST NEV), Occasionally (OCC), Regularly (REG). BE SURE TO RESPOND TO EACH NEWSPAPER

	ALMOST NEV.	OCC	REG
Knoxville Journal	___	___	___
Knoxville News Sentinel	___	___	___
Wall Street Journal	___	___	___
The Daily Beacon	___	___	___

What section of the newspaper do you read first after reading the General News on page one? (circle one)

Editorial	Amusement
Sports	Business
Classified Adds	Women's/Society

Below is a list of different types of organizations. If you are a member of any organizations please indicate (✓) what types they are. Look at the examples to help you classify each organization. IF AN ORGANIZATION TO WHICH YOU BELONG DOES NOT SEEM TO FIT INTO ANY OF THE CLASSIFICATIONS, PLEASE WRITE ITS NAME ON THE LINE LABELED "OTHER".

____Veteran's/Patriotic Group (American Legion, V.F.W., etc.)
____Political/Social-Action Group (Common Cause, Young Republicans, N.O.W., etc.)
____Business/Professional Group (Restaurant Assocation, Society of Professional Engineers, Society of C.P.A.'s, N.E.A., etc.)
____Labor Union
____Religious Organization (Masons, Gideons, Knights of Columbus, etc.)
____Non-Religious Fraternal Organization (Elks, Moose, etc.)
____Recreational/Sports Club (country, golf, yacht, tennis, or health clubs, etc.)
____Hobby Group (Garden Club, Bridge Unlimited, stamp or coin collecting club, etc.)
____Civic/Service Organization (Rotary Club, Lions Club, Symphony Association, etc.)
____Other _____

IMAGINE you lived in an area where YOUR TELEVISION SET COULD RECEIVE JUST ONE CHANNEL AND ONLY THE FOLLOWING PROGRAMS. Please indicate (✓) if you should watch each program: Almost Never (ALMOST NEV), Occasionally (OCC), or Regularly (REG). BE SURE TO RESPOND TO EACH PROGRAM.

	ALMOST NEV	OCC	REG
Johnny Carson	___	___	___
Dinah Shore	___	___	___
All in the Family	___	___	___
Sanford & Son	___	___	___
Rhoda	___	___	___
Carol Burnett	___	___	___
Donnie & Marie Osmond	___	___	___
Charlie's Angels	___	___	___
Baretta	___	___	___
Columbo	___	___	___
700 Club	___	___	___
6 Million Dollar Man	___	___	___
Star Trek	___	___	___
Meet the Press	___	___	___
60 Minutes	___	___	___
Nova	___	___	___
The Waltons	___	___	___
Marcus Welby	___	___	___
Upstairs, Downstairs	___	___	___
The Adams Chronicles	___	___	___
Wide World of Sports	___	___	___
Monday Night Football (in season)	___	___	___

SUPPOSE you were GIVEN A FREE SUBSCRIPTION TO EACH OF THE FOLLOWING MAGAZINES AND HAD A LOT OF TIME TO READ. Please indicate (✓) if you would read each magazine: Almost Never (ALMOST NEV), Occasionally (OCC), or Regularly (REG). BE SURE TO RESPOND TO EACH MAGAZINE.

	ALMOST NEV	OCC	REG
Time	___	___	___
Newsweek	___	___	___
Womans Day	___	___	___
Family Circle	___	___	___
Sports Illustrated	___	___	___
Ebony	___	___	___
Popular Mechanics	___	___	___
Mechanix Illustrated	___	___	___
Playboy	___	___	___
Esquire	___	___	___

	ALMOST NEV	OCC	REG
Readers Digest	___	___	___
Parents' Magazine	___	___	___
Family Health	___	___	___
Radio TV Mirror	___	___	___
MS.	___	___	___
Cosmopolitan	___	___	___
New Yorker	___	___	___
Saturday Review	___	___	___
Fortune	___	___	___
Outdoor Life	___	___	___
National Enquirer	___	___	___

APPENDIX C

SCORING ARRANGEMENT OF INSTRUMENT ITEMS ITEMS GROUPED AS SUBSCALES AND ITEMS STANDING ALONE

SCORING ARRANGEMENT OF INSTRUMENT ITEMS,
ITEMS GROUPED AS SUBSCALES
AND ITEMS STANDING ALONE

Opinion Subscales[1]

Government: Conservative versus Liberal Opinion

An honest person cannot get elected to high political office.
*By and large I think that politicians are doing a good job and solving our problems.

Minorities and Social Welfare: Conservative versus Liberal Opinion

We ought to do more for those less fortunate than we are.
*These days minorities are getting more opportunities than they deserve.
*I would never live next door to someone of a different race.
*I believe in looking out for myself and my family and letting others shift for themselves.

Pollution: Conservative versus Liberal Opinion

*Despite what some people say pollution really doesn't bother me.
It's really a shame to see our lakes and streams being polluted.
*If America is going to progress we'll just have to put up with pollution.
I really get angry when I see the chimney of a factory blowing smoke into the air.

Law and Order: Conservative versus Liberal Opinion

*Our laws give too much protection to criminals.
*I am in favor of strict enforcement of all laws.
*The sentences handed down to criminals are usually too light.
*One has the right to break a law that he/she feels is immoral.

Family Structure: Conservative versus Liberal Opinion

*Whatever some people say, "Spare the rod and spoil the child" still holds true even in these modern times.
*If children are allowed to talk back to their parents they will lose respect for them.
In making family decisions parents ought to take the opinions of their children into account.
*Some equality in marriage is a good thing but by and large the husband ought to have the main say-so in family matters.

Women's Rights: Conservative versus Liberal Opinion

*A woman's place is in the home.
Even today women live under unfair restrictions that ought to be done away with.
A woman should have important activities and interests outside the home whether it be a job, community, or church work.
*It is somehow unnatural to put women in authority over men.

Business: Conservative versus Liberal Opinion

Many companies took advantage of the energy crisis to increase their profits unfairly.
Most big companies are just out for themselves.
American business should have a greater sense of social responsibility.
Businesses spend too much money lobbying and not enough improving consumer products.

Teaching Approach: Conservative versus Liberal Opinion

Adults should have an opportunity to assist in planning their learning experiences.
I don't like classes where the teacher just lectures.

---

*Responses to these items will be reversed.

[1]The lower the score the more conservative the opinion and the higher the score the more liberal the opinion.

Interest Items[1]

I would like to get together with a group of people on a regular basis to discuss world events and foreign policy.

I would like to go on a guided tour with a historian and visit some of the interesting places in our area.

I often wish there were a counselor I could talk with to discuss personal or vocational problems.

It's a good idea for everyone to learn to do his/her own automobile maintenance.

I would like to learn more about photography.

I like to garden.

I have always wanted to play the piano or guitar.

I would like to take a course in self defense.

Even though I try my best to raise my children, I would like to take a course on how to be a more effective parent.

It would be nice to meet once a week with a professional and a group of people to discuss how we feel about ourselves and our place in the world.

I would like to take a "Consumer Survival Kit" course that taught me what to look for and how to get a fair shake when buying a home, car, furniture, appliances, etc.

I wish I knew more about economics so that I could really understand what is happening to our economy.

These days a person needs to take a course in how to manage his/her money better.

I would like to know more about how the stock market works and how a person can invest in it.

It would be interesting to meet regularly with a group of people and discuss a book we had all read.

Sometimes I think that I have missed something because I have never learned more about art and classical music.

I would like to build a radio, TV, etc., from an electronics kit.

I like to work with wood.

I would like to learn to paint, draw or sculpture.

I would like to learn how to prepare gourmet meals.

It would be a good idea for me to learn the metric system since it will be in general use before too long.

I would like to take a Dale Carnegie course for self-improvement.

All cigarette smokers should try and "kick the habit."

Everyone should have a hobby.

I would like to know more about the proper care of house plants.

I have always wanted to speak another language.

I enjoy discussions about politics.

I would be interested in meeting regularly with a health professional who would help me plan and maintain a diet and exercise program.

I would like to know more about financial planning for retirement.

I often read the Bible.

Religion plays an important part in my life.

---

[1]The higher the score the greater the interest.

Motivation for Participation Subscales[1]

Social Relationship: Low versus High Motivator

I am taking this course to fulfill a need for personal associations and friendships.

I am taking this course to make new friends.

External Expectations: Low versus High Motivator

I am taking this course to comply with instructions from someone else.

I am taking this course to carry out the expectations of someone with formal authority.

Professional Advancement: Low versus High Motivator

I am taking this course to give me higher status in my job.

I am taking this course to increase by abilities for my job.

Excape/Stimulation: Low versus High Motivator

I am taking this course to get relief from boredom.

I am taking this course to get a break in the routine of home or work.

Cognitive Interest: Low versus High motivator

I am taking this course to learn just for the sake of learning.

I am taking this course to seek knowledge for its own sake.

---

[1]The higher the score the more the subscaled factor served as a motivator for participation.

Job Satisfaction Subscale[1]

My job is like a hobby to me
*I am disappointed that I ever took my present job
I enjoy my work more than my leisure time
*I am often bored with my job
*Most of the time I have to force myself to go to work
I feel that my job is more interesting than others I could get
*I definitely dislike my work
Most days I am enthusiastic about my work
*Each day of the week seems like it will never end
I am interested in taking courses that will help me get ahead in my present job or prepare me for a new job.

---

*Responses to these items will be reversed.

[1]The higher the score the greater the sense of job satisfaction.

Activities in Past Year:

Items Grouped and Items Standing Alone[1]

Did art work (painting, drawing, photography, sculpture, etc.)

Performed in amateur dramatics
Sang or played a musical instrumetn

Visited an art gallery or museum
Went to a classical concert

Wrote a poem, story or song

Went on a trip outside the U.S.

Went snow skiing

Did volunteer or community work

Went out to dinner to a restaurant

Went to a pop, country, rock concert
Went dancing

Went to an organization meeting

Entertained people in my home

Drank beer

Went bowling
Played pool or billiards

Played poker

Played golf

Attended a sporting event

Played tennis
Jogged or did calesthenics

Played handball, paddleball
Played basketball

Went swimming
Went water skiing

Went boating

Went hunting or fishing

Went hiking, backpacking, camping

Went to an auto race

Went to a movie

Cooked outdoors
Went on a picnic

Worked on a do-it-yourself job around the house

Attended church

Played a parlor game
Did a crossword puzzle

Played with the children

Went on vacation

Did some deep thinking
Prayer

Went to a library
Read a book

Worked on a collection (stamps, etc.)

Went for a relaxing walk

Did some sewing, knitting, etc.

Brought some work home from my job

Attended a lecture (not a class)

Smoked a cigarette (not pipe, cigar)

Drank wine

---

[1]The higher the score the greater the number of times the activity was done.

Organizational Membership Items

Veterans/Patriotic Group (American Legion, V.F.W., etc.)

Political/Social-Action Group (Common Cause, Young Republicans, N.O.W., etc.)

Business/Professional Group (Restaurant Association, Society of Professional Engineers, Society of C.P.A's, N.E.A., etc.)

Labor Union

Religious Organization (Masons, Gideons, Knights of Columbus, etc.)

Non-Religious Fraternal Organization (Elks, Moose, etc.)

Recreational/Sports Club (country/golf/yacht/tennis/health clubs)

Hobby Group (Garden Club, Bridge Unlimited, stamp or coin collecting club, etc.)

Civic/Service Organization (Rotary Club, Lions Club, Symphony Association, etc.)

Radio Station Preference Item[1]

What Radio Station do you listen to most? AM or FM (circle one)

WJBE-AM	WBIR-FM
WNOX-AM	WEZK-FM
WKGN-AM	WUOT-FM
WIVK-AM	WIVK-FM
WRJZ-AM	
WKXV-AM	

Newspaper Preference Items[1]

Knoxville Journal	Wall Street Journal
Knoxville News Sentinel	The Daily Beacon

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[1]The higher the score the greater the preference.

What section of the newspaper do you read first after reading the General News on page one? (circle one)

Editorial	Amusement
Sports	Business
Classified Ads	Women's/Society

Television Viewing Habits/Preferences:
Items Grouped as Subscales and Items Standing Alone[1]

IMPORTANCE AS A LEISURE ACTIVITY

On an average weekday how many hours do you watch T.V.?
On an average weekend how many hours do you watch T.V.?

TALK SHOW
- Johnny Carson
- Dinah Shore

SITUATION COMEDY
- All in the Family
- Sanford and Son
- Rhoda

VARIETY SHOW
- Carol Burnett
- Donnie and Marie Osmond

ACTION/ADVENTURE
- Charlie's Angels
- Baretta
- Columbo

RELIGIOUS
- The 700 Club

SCIENCE FICTION
- Star Trek
- Six Million Dollar Man

DRAMA (Commerical T.V.)
- The Waltons
- Marcus Welby

NEWS
- Meet the Press
- 60 Minutes
- Nova

DRAMA (PBS)
- Upstairs, Downstairs
- The Adams Chronicles

SPORTS
- Wide World of Sports
- Monday Night Football

---

[1]The higher the score the greater the importance of preference.

Magazine Preferences:
Items Grouped as Subscales and Items Standing Alone[1]

NEWS
- Time
- Newsweek

TRADITIONAL WOMENS'
- Womans Day
- Family Circle

SPORTS
- Sports Illustrated

WORKSHOP/MECHANICAL
- Popular Mechanics
- Mechanix Illustrated

MENS'
- Playboy
- Esquire

GENERAL/ANTHOLOGY
- Readers' Digest

BLACK
- Ebony

GOSSIP/TABLOID
- Radio TV Mirror
- National Enquirer

MODERN WOMENS'
- MS
- Cosmopolitan

BUSINESS
- Fortune

OUTDOOR/RUSTIC
- Outdoor Life

LITERARY/HIGHBROW
- New Yorker
- Saturday Review

FAMILY
- Parents Magazine
- Family Health

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[1]The higher the score the greater the preference.

APPENDIX D

COURSE DESCRIPTIONS

COURSE DESCRIPTIONS

INTRODUCTION TO AMERICAN ANTIQUES

Provides a quick survey of parallel developments in the major crafts in America and places them in their historical context. The subject matter considered here is the usefulness of decorative things that are known to have a place in our American homes and the pieces that have been widely sought by American collectors of today. Emphasis is placed on what was made in America in furniture and silver. Ceramics, glassware, and other categories imported to this country will be discussed. Each session will deal with a period in American Antiques followed by slides, examples when possible, and antiques brought in by members of the class for identification.

Instructor: Morehous, Marjorie B., B.S., Member Delaware Valley Antique Dealers Association
Cost: 10 weeks/$35.00
Date & Time: Wednesday 7:00-9:00 p.m. Beginning January 11
Location: Second Presbyterian Church Room 58
Section 6976

ANATOMY REFRESHER

This course introduces the student to the basics of the human anatomy and the functions of body tissues and organs. It is designed to present simply the concepts necessary for understanding the nine different body systems and how they work and relate to each other. Color transparencies are used along with class discussion and lectures to enhance the grasp of the material. The course content will be useful to health care workers, health education students to adults and teachers who want to improve their understanding in health-related areas. This course will be a very valuable follow-up for those persons completing Medical Terminology.

Instructor: Stevens, Naney J., B.A., M.P.H., Adult Education Instructor
Cost: 10 weeks/$45.00
Date & Time: Tuesday, 5:30-7:30 p.m. Beginning January 10
Location: SAC Room 126
Section 6951

ASSERTIVENESS TRAINING

Many of us have grown up experiencing ourselves and each other with much guilt, fear, aggressions, shame and withdrawal. We've spent a lot of time listening to others tell us how we "ought to be." Assertive behavior is aimed at equalizing the balance of power, not in "winning the battle" by putting down the other person. The expected outcomes include: (1) less inhibition in dealing with others, (2) more ability to make and refuse requests, (3) more ability to ask others to change their behavior without feeling guilty or anxious, (4) more awareness of feelings of self and others. Materials and activities will include videotapes, role playing, homework, feedback, modeling and reinforcement. Enrollment is limited to 15 students.

Instructor: Anderson, Monique; Career Counselor, UTK Counseling Center
Cost: 6 weeks/$25.00
Date & Time: Monday, 6:30-8:30 p.m.
Beginning January 9
Section 6956 900 Volunteer Blvd.
Wednesday 6:30 - 8:30 p.m.
Beginning January 11
Section 6957 900 Volunteer Blvd.

AUTO MAINTENANCE FOR FOREIGN CARS

This course is designed for persons interested in learning how to maintain their foreign car. A basic understanding of auto mechanics will be taught. The exact content of the course will be determined by the individual student's needs and interests. Shop experience will be stressed, the students will be able to work on their own cars. Some basic tools would be helpful, but are not essential. A discount on parts will be available.

Instructor: Hunter, Paul, Owner, Hunter's Import Auto Service
Cost: 10 weeks/$30
Date & Time: Wednesday 7:00-9:30 p.m.
Beginning January 11
Location: First class in HSS 103-A
Section 6958

AVIATION: PRIVATE PILOT'S LICENSE

Course consists of audio-visual aids and discussion in instruction. It provides the necessary instruction to take and pass the FAA written examination for the private pilot's license. It also emphasizes safety through the discussion of the FAA Exam-O-Grams. Concurrent flight training is not necessary, but it is advisable, and can be arranged through local certified flight instructors. Includes additional field visit. Class is limited to 50 students.

Instructors: Kuchta, Daniel J., Ed.D.; FAA Certified Flight Instructor
O'Kelley, Genie Rae; FAA Certified Flight Instructor
Cost: 10 weeks/$50.00
Date & Time: Thursday 6:30-9:30 p.m.
Beginning January 5
Location: SAC 128
Section 6959

BEGINNING BELLY DANCE

Belly dancing coordinates body-building and breathing control exercises with musical rhythms. Basic hip and leg, bust and shoulder, hand, finger, and abdominal muscle movements are incorporated into the total fluid motions of this style and dance. Students will learn a complete dance plus many basic steps in order to create her own fascinating and appealing dances. This is a most effective method of trimming down the waistline, hips, and thighs.

Instructor: Swick, Diana R., Student of Belly Dance for three years
Cost: 10 weeks/$35.00
Date & Time: Tuesday 6:30-8:00 p.m.
Beginning January 10
Location: Gym 23
Section 6990

CALLIGRAPHY

This course will teach the use of the Speedball pen and pen points with the goal of mastering hand and pen control. All style points, A,B,C, and D, will be used, with emphasis on the B point for Block Lettering (Gothic) and the C point for Chancery Script and Old English Text. The course will progress to other lettering styles and variations, methods of illumination, decorative bordering, and ornamentation. With

this mastery you can letter your own quotations or poems on parchment, letter your own invitations, birthday cards, Christmas cards, and signs. Enrollment is limited to 25 students. Students should pick up class handout, and bring all supplies to first class meeting.

Instructor: Watson, Sharon Haz; M.S. Professional Calligrapher
Cost: 8 weeks/$30
Date & Time: Thursday, 7:00-9:00 p.m.
Beginning January 5
Location: G 72
Section 6969

CHINESE COOKING

An elementary course intended to introduce to the American public the wonders of authentic Chinese cuisine. Through demonstration, discussion, tasting and recipe-sharing, this course will enable students to prepare a variety of exquisite and delightful Chinese meals. The principal cooking procedures include stir-frying, roasting, simmering, deepfrying and steaming. Timing, cutting, and the harmonizing of color, aroma, flavor, and nutrition will be emphasized. No special kitchen equipment necessary. Ingredients readily available in supermarkets. An $8.00 lab fee is payable at the first class meeting.

Instructor: Hae, Pin-Hau Tu, Graduate of the Taiwan School of Gourmet Cooking
Cost: 6 weeks/$40
Date & Time: Wednesday 9:30 a.m. - 12:00 NOON
Beginning January 11
Location: 7408 Bennington Drive
Section 6981

Thursday 6:30 - 9:00 p.m.
Beginning January
Location: 7408 Bennington Dr.
Section 6982

INTRODUCTION TO CLINICAL LABORATORY SCIENCE & TESTS

This course is primarily designed to give nonlaboratory health professionals and lay persons an introduction to the most commonly encountered diagnostic tests performed in the hospital laboratory. The collection analysis and clinical significance of the laboratory tests will be discussed in

the areas of urinalysis (e.g., specific gravity, sediment exam), Hematology (e.g. anticoagulant therapy tests, anemia detection, blood cell counts and identification); blood chemistry (e.g., cardiac, liver, and kidney function tests); serology (e.g., syphyllis, viral, and bacteria infection detection tests); and immunology (e.g., blood typing and cross matching for transfusion and donation of blood).

Instructor: Painter, Pennell C.; Ph.D., Clinical Chemist in Pathology Department at University of Tennessee Memorial Hospital
Cost: 10 weeks/$35.00
Date & Time: Thursday 6:30-9:20 p.m.
Beginning January 5
Location: G102
Section 6975

EMBROIDERY

Beginning with embroidery in Cotton Floss and Crewel Wool, and ending with sessions on Needlepoint and Bargello, this course covers over 30 basic stitches, with demonstrations and diagrams. After 6 items are started in class, students choose or design their final project. Blocking, transferring and enlarging patterns, finishing, and other techniques helpful to those who wish to develop and finish their own designs are emphasized. Price includes 5 samplers. Class is limited to 17 students.

Instructor: Easterly, Joan; M.A.; A.M., Ph.D. Former Assistant Professor of French, with over 25 years of experience in Embroidery
Cost: 9 weeks/$35.00
Date & Time: Monday 7:00-9:00 p.m.
Beginning January 16
Location: SAC 139
Section 7002

ENGLISH GRAMMAR & COMPOSITION

This is a refresher course for anyone who has to write on the job. Students wishing to improve their composition skills will also find it valuable. Major topics include remedies for high-frequency grammatical problems, methods for strengthening sentence and paragraph construction and strategies for overall organization. This course is not designed for students preparing for the TOEFL examination. Class is limited to 25 students.

Instructor: Bohringer, Kenneth C., Ph.D., Associate Director for Extended Learning, UTK
Cost: 10 weeks/$30.00
Date & Time: Tuesday 7:00-8:30 p.m.
Beginning January 10
Location: HSS 121
Section 7005

BASIC FLYTYING

In cooperation with Trout Unlimited, a non-profit organization, this course is an introduction to flytying beginning with familiarization with equipment and materials. After basic mechanics of artificial fly construction have been mastered the course will proceed to cover basic dry fly, wet fly, nymph patterns, and terresterials. Class is limited to 20 students.

Instructor: Congleton, Joseph, Knoxville attorney, experienced flytier
Cost: 8 weeks/$30.00
Date & Time: Tuesday 7:10-9:15 p.m.
Beginning January 10
Location: Geology Lab Room
Section 7006

FUND RAISING I

This course will include all aspects of Fund Raising for Non-profit Organizations. It is designed for those individuals that are responsible for their organization's fund raising program or events. The course will be beneficial for Board Members, Volunteers, Auxiliary Members, Executive Directors, and anyone interested in public or private sector funding. Some subject areas are the basics of fund raising organization and planning, program development, public relations, volunteer leadership recruitment and responsibility, government regulations, fund raising ideas, plus much more.

Instructor: Thrift, Carroll S., M.S. UTK, Member of the National Society of Fund Raisers
Cost: 5 weeks/$25.00
Date & Time: Wednesday 6:30-8:30 p.m.
Beginning January 11
Location: HSS 109
Section 7008

GERMAN II

This course is designed to be a continuation of German I. Emphasis will be placed on German culture for actual conversations.

Instructor: Lee, Judith; Ph.D., Germanic and Slavic Languages
Cost: 10 weeks/$35.00
Date & Time: Monday, 6:30-9:00 p.m.
Beginning January 9
Location: HSS 123
Section 7011

PRACTICAL GOURMET COOKING IV

This course is a continuation of the methods of gourmet cooking complete with new ideas and recipes. However, Gourmet I, II, and III are not prerequisites for enrolling in this course. Class is limited to 15 students. There is a lab fee of $8.00 payable at the first class meeting.

Instructor: Nussbaumer, Rosa: B.S., Professional Caterer
Cost: 6 weeks/$45.00
Date & Time: Tuesday 6:30-9:30 p.m.
Beginning January 3
Location: 7301 Hallbrook Road
Section 6984

HOW TO STUDY

This course surveys all major aspects of studying and learning, including studying mathematics, foreign language, taking examinations, taking notes, and information on where the student can get help. Specific directions and techniques are provided by the instructor. Tests and exercises will be used for practical applications of the principles.

Instructor: Ayres, Thomas; M.S., Assistant Director, Workshops and Off-Campus Programs, UTK.
Cost: 8 weeks/$30.00
Date & Time: Wednesday 6:30 - 8:30 p.m.
Beginning January 19
Location: HSS 210
Section 7101

HUMAN RELATIONS GROUPS

This workshop is designed around the small group (8-10 with 2 facilitators) experience to facilitate greater awareness and insight into one-self and into the relationships and communication patterns that the individual has established with others, in our competitive, political world periodic exploration and examination of ourselves and our relationships is necessary.

Instructor: Dargan, William, Director, Industrial Education, Alcoa.
Cost: 10 weeks/$40.00
Date & Time: Thursday 7:00-10:00 p.m.
Beginning January 5
Location: Unitarian Church
Section 6978

EXPRESSING YOUR PERSONALITY THROUGH INTERIOR DESIGN

A practical course in the fundamentals of interior design indicating ways in which your individual personality can be expressed in creating an interior environment that is also functional and attractive. Topics include principles of design, furniture arrangement, selecting a house plan and well-designed kitchens, period furniture styles, color, and furniture construction and fabric performance. Class is limited to 30 students.

Instructor: Allen, Barbera; B.S. Interior Design, University of Texas, Interior Designer, Woodruff's Century House.
Cost: 6 weeks/$35.00
Date & Time: Wednesday 7:30-9:30 p.m.
Beginning January 11
Location: HSS 53-B
Section 7024

LIFE PLANNING WORKSHOP

Created to help individual develop and look at their lives, where it is and where it can be. Through small group experiences, structured guidelines and exercise, the participants will work on a series of eight distinct personal areas. The information gathered from these experiences will be used as a basis of examining and exchanging feelings.

Instructor: Allendorf, Barbara: M.S.S.W., Counselor Child and Family Studies
Cost: 10 weeks/$40

BEGINNING MEDICAL TERMINOLOGY

This course offers an opportunity to learn the basics of medical terminology and utilizes a new and enjoyable approach to the understanding of medical words and their construction which makes it easier to learn and remember. It is intended to meet the needs of such persons in the health care areas, students in the medical field, and adults who want to learn more about their bodies and how to describe them more fully. The course also includes information on understanding of the patient-nurse-physician interrelationship, and just enough anatomy to understand the meanings of the medical terms.

Instructor: Stevens, Nancy: B.A., M.P.H., Adult Education Instructor
Cost: 10 weeks/$45.00
Date & Time: Tuesday, 7:30-9:30 p.m.
Beginning January 10
Location: HSS 204
Section 7032

PADDLEBALL

Men, women, and children of all ages can participate in paddleball, a sport which is similar to handball. Games can be played by two, three, or four players on a one, three or four-wall court either indoors or out. This course will cover these different aspects of the sport, as well as court positioning, shot types, and serving. Enrollment is limited to 14.

Instructor: Rice, Jack: B.S., Advisor to paddle club, UTK
Cost: 10 weeks/$40.00
Date & Time: Thursday 5:30 - 7:30 p.m.
Beginning January 5
Location: HPER 232
Section 7040

PERSONAL MONEY MANAGEMENT

Money is probably more difficult to manage than it is to earn. If a person manages his money well, he not only can have enough to spend now, but can make steady progress toward investment goals. This course will help an individual (or family) "get organized" so he can undertake a serious investment program, and help him consider major investment alternatives. An effort will be made to show each student how to better manage his own money. The course will include such topics as insurance, the stock market, real estate and investing for income. There will be handouts and an optional text.

Instructor: Smith, Daniel; M.S., Business Manager, UTK
Cost: 10 weeks/$35.00
Date & Time: Monday 7:00-9:00 p.m.
Beginning January 9
Location: G 75
Section 7034

BETTER 35mm PHOTOGRAPHY

This course is designed to help the serious amateur Photographer take better pictures and slides with his camera. The course will cover subjects such as film types, exposure, indoor and outdoor portraiture, lighting techniques and nature photography. Also, the course will discuss composition, presentation, and choice of equipment. There will be a $2.00 charge each time a model is used in class. Class is limited to 15 students.

Instructor: Mottern, James T., Professional photographer
Cost: 10 weeks/$35.00
Date & Time: Thursday 7:00-9:30 p.m.
Beginning January 5
Location: HSS 219
Section 7043
Tuesday 7:00-9:30 p.m.
Beginning January 10
Location: HSS 219
Section 7044

PRINCIPLES OF MANAGEMENT FOR GOVERNMENT EMPLOYEES

For Middle Management Personnel. Emphasis will be placed upon increasing knowledge and understanding of the principles, concepts and techniques of management theory, philosophy, processes and principles, and developing insights and skills required to improve effective management practices within each participant's organizational environment. Course content includes such topics as Evolution of Management Theory, Schools of Management Theory, Integrating Management Theory with Management Today, Management by Objectives Management Principles--Planning, Organizing, Coordinating, Directing, and Controlling. Qualifies as required courses in state and local government certificate. Class is limited to 25 students.

Instructor: Chaffin, Wayne; M.A., Doctoral Student, UTK
Cost: 10 weeks/
Date & Time: Thursday 5:30-7:30 p.m.
Beginning January 5
Location: HSS 204
Section 7099

RACQUETBALL

Racquetball is the fastest rising sport in America today. The main advantage of racquetball is that it is easy to learn in a very short period of time. Men, women, and children can participate in racquetball. Courses cover all basic skills involved, plus more advanced aspects such as footwork, court position, serving, and game strategy. Emile Catiganani is currently Knoxville City Champion in singles and doubles; was National Intercollegiate Runner-up in Doubles. Class is limited to 20 students.

Instructor: Catignani, Emile; M.S., Knoxville City Singles Champion.
Cost: 10 weeks/$40.00
Date & Time: Thursday 5:30 - 7:30 p.m.
Beginning January 5
Location: Handball Courts 1-4
Section 7049

RAPID READING

This course is designed to develop those skills by which a person learns to read quickly and with understanding in the most efficient way. The course emphasizes improved organizational ability, perception, and memory for details, and concentration skills with more efficient eye movements and increased motivation to read better and faster. A course goal is to at least double an individual's reading ability. Enrollment is limited to 30 students each section.

Instructor: Barton, William D.; Ed.D., Associate Dean, Division of Continuing Education, UTK
Cost: 10 weeks/$45.00
Date & Time: Section 7053 T, 5:00-7:00 P.M.
Section 7054 T, 7:00-9:00 P.M.
Beginning January 10
Location: CUEB Aud.
Section 7055 R, 5:00-7:00 P.M.
Section 7056 R, 7:00-9:00 p.m.
Beginning January 5
Location: CUEB Aud.

REAL ESTATE LAW II

The legal nature of property and right therein. Real estate contracts, deeds, leases, trust deeds, mortgages, and other real estate instruments. Testate and intestate transfer of property will also be covered. This is a continuation of Law I.

Instructor: Watson, Jewell K., J.D., Attorney at Law
Cost: 10 weeks/$50.00
Time and Date : Monday 6:30-9:20 p.m.
Beginning January 9
Location: G 229
Section 7059

REAL ESTATE MATH

Course objective is to teach State of Tennessee licensed brokers and those preparing to take the broker or affiliate broker examination, the method and techniques of real estate mathematics.. Course includes computation of taxes; rents; interest; closing cost; closing statements; tax advantages; replacement, capitalization, and market analysis methods, sources including primary and secondary markets; discount; depreciation; and rate of return on investment.

Instructor: Myers, Dan; M.S., Tulane University,
Graduate of Realtors Institute
Cost: 10 weeks/$50.00
Time and Date: Thursday 7:00-19:00 p.m.
Beginning January
Location G 228
Section 7057

REAL ESTATE PRINCIPLES

This course is designed for people planning to take the State Licensing Examination. Topics include an introduction to the social, economic, financial, and legal problems involved in the acquisition, ownership, use, and disposition of real estate interests. Enrollment is limited to 60 students.

Instructor: Ballenger, G.T., Jr.; B.S., Partner,
G.T. Gallenger Realtors
Cost: 10 weeks/$60.00
Time & Date: Tuesday 6:30-9:20 p.m.
Beginning January 10
Location: G228
Section 7060

HOW TO SAIL

Terminology, basic concepts, and the mechanics of sailing are taught in the classroom and applied aboard the instructor's boat. The course objective is to give the student a basic understanding of sailing and sufficient experience to begin sailing. Usually the areas covered can be tailored to meet the specific needs and objectives of the students.

Instructor: Barron, John, Captain, U.S. Naval Reserve
Cost: weeks/$30.00
Date & Time: Tuesday 7:00-9:00 p.m.
Beginning January 10
Location: HSS 220
Section 7061

SKIN AND SCUBA DIVING

Skin and scuba diving instruction is presented for the intended use of the sport diver who dives basically for the sheer enjoyment. The certified course content will include improvement of skills, information on safety, in-the-pool instruction, classroom technical information, and open-water dives will be tanks (one per student), pacs, regulators, air fills, and weight belts. Each student will be responsible for his personal gear. Approximate cost of personal gear is $60-$80 and will be discussed on the first night of class. Course requires medical examination, and having reached the age of 15. Class is limited to 22 students.

Instructor: Maples, Harold L., B.S., Former YMCA Scuba commissioner for Southern Area Association
Cost: 10 weeks/$55.00
Date & Time: Tuesday and Thursday 6:00-9:00 p.m.
Beginning January 5
Location: HPER Pool Classroom 243
Section 6997

SLIMNASTICS

Don't let the cold weather make you lazy! Stay slim and fit with slimnastics, a program of slimming exercises designed to help your individual needs and give you a program you can keep up with at home "Whistle while you work" off unwanted inches.

Instructor: Forsten, Debbie, B.S., Physical Education, UTK
Date & Time: Tuesday, Thursday 6:00-7:00 p.m.
Beginning January 5
Cost: 10 weeks: $25.00
Location: HPER 202-A
Section 7067

STAINED GLASS

Stained glass had its beginning in ninth century Europe and claims a long and varied history. Today, as both a craft and an art form, it is enjoying a tremendous revival and promises many home decorating possibilities. The purpose of this course is to acquaint the beginning student with the techniques of stained glass construction. Basic design, glass cutting, leading and the copper foil method are covered. Emphasis will be placed on encouraging each student to produce finished stained glass objects and panels. Approximately $10-$20 will be needed for basic tools and materials. Enrollment is limited to 15 students each section.

Instructor: Kluge, Susam, B.A., Professional stained glass craftsman.
Cost: 8 weeks/$40.00
Date & Time: Tuesday 7:00-9:30 p.m.
Beginning January
Section 7070
Thursday 9:00-9:30 p.m.
Beginning January 5
Section 7071
Location: SAC 143

TYPEWRITING

This course is designed for those who have had no typewriting previously, or who type less than 25 words a minute. Development of basic typewriting skills will be emphasized with application to letters, business papers, and school papers.

Instructor: Walker, Donna, Lecturer in Office Administration Department at UTK
Cost: 8 weeks/$35.00
Date & Time: Monday and Wednesday, 6:30-8:20 p.m.
Beginning January 9
Location: G 63
Section 7086

UNDERSTANDING YOUR VW

This course is designed for the VW lover. The student will learn tune-up procedures and other basic maintenance for air cooled VWs. Actual shop experience will be stressed with students able to work on their own cars. The course will be structured to accommodate individuals with different interests. No tools are necessary, but a list of suggested items will be given to the students in class. A discount on parts will be available. Enrollment is limited to 20 students.

Instructor: Hunter, Paul, Owner, Hunter's Import Auto Service
Cost: 10 weeks/$30.00
Date & Time: Tuesday, 7:00-9:30 p.m.
Beginning January 10
Location: HSS 62 (first class meeting)
Section 7088

WINES OF AMERICA

A course to explore American wines and viticulture in some depth. California and New York will be featured although wines of other locales will be studied if samples are available. Emphasis will be on "varietal" and/or premium type wines. The course is non-technical but those enrolling should have some basic knowledge of and experience with wine. There will be a $10-$12 Lab fee payable at the first class meeting. Class is limited to 20 students.

Instructor: Achilles, Charles; Ed.D., Experienced wine appreciation instructor.
Cost: 10 weeks/$35.00
Date & Time: Wednesday 7:00-9:00 p.m.
Beginning January 11
Location: HSS 110 (first class meeting)
Section 7090

APPENDIX E

LETTER FROM DIRECTOR OF NON-CREDIT PROGRAMS, DIVISION OF CONTINUING EDUCATION, THE UNIVERSITY OF TENNESSEE, KNOXVILLE, TENNESSEE TO THE INSTRUCTORS

January 26, 1978

Dear

Thank you for your cooperation in this study. The few minutes the questionnaire takes to complete will provide valuable information to us in developing non-credit programs.

The directions on the questionnaire are fairly clear. Pretesting has shown that students have little trouble in understanding what they are to do. Much depends on how well the questionnaire is introduced. We have found that the following steps must be performed to insure proper completion of the questionnaire.

(1) At the time that you distribute the questionnaire, inform the students of the following:

   (a) Their completion is a voluntary act on their part.
   (b) There are no repercussions for failure to complete.

(2) Please instruct the students to read the "Dear Adult Student" letter on the first page of the questionnaire.

(3) Please instruct the students to go through the entire questionnaire and read every set of instructions, regardless of how simple the instructions may appear to be.

(4) After the students have completed the questionnaire, ask them to review it to make sure thay have responded to all items in sections that apply to them.

We have found that the quality of completed questionnaires increases significantly if these steps are performed. Failure to do so results in misread instructions and many items that that are left blank.

The University of Tennessee/Knoxville □ Division of Continuing Education □ 1629 Melrose Avenue □ 615/974-6688

Another step, unwritten but of critical importance, is keeping the students at ease with the questionnaire. They must understand that it is not a test--there are no grades or "right" answers. If students do not understand this there will be a greater chance that they will respond as they would like to be seen, rather than as they are.

After the students have completed the questionnaire, please return the questionnaire to the Department of Non-Credit Programs as soon as possible. If you have any questions, concerning the questionnaire please contact Bill Nichols in this office (974-6688).

Thank you for your cooperation.

Cordially,

Dan Kuchta

Daniel J. Kuchta
Director

DJK/ld

APPENDIX F

COMPUTER PRINTOUTS FROM THE STATISTICAL ANALYSIS

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In the following statistical tables, the learning groups are coded as follows: (1) Personal Development; (2) Home and Family; (3) Job-Related Subjects and Skills; (4) Hobbies and Recreation; and (5) Decorative Arts and Crafts.

FILE NONAME (CREATION DATE = 08/28/78)

DISCRIMINANT ANALYSIS

SUMMARY TABLE

OPINIONS

STEP NUMBER	VARIABLE ENTERED	REMOVED	F TO ENTER OR REMOVE	NUMBER INCLUDED	WILKS' LAMBDA	SIG.	RAO'S V	CHANGE IN RAO'S V	SIG. OF CHANGE
1	OFAMILY		2.69343	1	0.97094	0.031	10.76414	10.76414	0.029
2	OTEACH		1.97966	2	0.94999	0.018	18.71640	7.95226	0.093
3	OLAW		1.34239	3	0.93595	0.021	24.18163	5.46523	0.243
4	CMNRTY		1.23540	4	0.92317	0.026	29.20857	5.02695	0.285
5	OGOVT		0.64543	5	0.91652	0.051	31.88492	2.67635	0.613
6	OBIZNIS		0.62050	6	0.91016	0.089	34.48071	2.59579	0.628

DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	:	FUNCTIONS DERIVED	WILKS' LAMBDA	CHI-SQUARE	DF	SIGNIFICANCE
				:	0	0.9102	33.747	24	0.089
1	0.04794	50.03	0.214	:	1	0.9538	16.958	15	0.321
2	0.03048	31.81	0.172	:	2	0.9829	6.195	8	0.625
3	0.01550	16.17	0.124	:	3	0.9981	0.682	3	0.877
4	0.00190	1.99	0.044	:					

REMAINING COMPUTATIONS WILL BE BASED ON 4 DISCRIMINANT FUNCTION(S)

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1	FUNC 2	FUNC 3	FUNC 4
OGOVT	0.27726	-0.35290	0.13307	-0.48977
CMNRTY	0.27888	-0.59784	0.53513	-0.10222
OLAW	0.24153	0.67022	-0.20376	-0.74596
OFAMILY	0.55800	0.26619	0.34211	0.61297
OBIZNIS	-0.33192	0.01105	0.30197	-0.57050
OTEACH	0.46222	-0.39330	-0.72135	-0.08564

CENTROIDS OF GROUPS IN REDUCED SPACE OPINIONS

		FUNC 1	FUNC 2	FUNC 3	FUNC 4
GROUP	1	0.10887	-0.15202	0.15765	-0.03827
GROUP	2	0.28299	0.01469	-0.00211	0.07825
GROUP	3	-0.41293	-0.06343	0.04307	0.03845
GROUP	4	0.01184	-0.07529	-0.18701	-0.02557
GROUP	5	-0.02029	0.35498	0.03523	-0.02545

FILE NICHOLS (CREATION DATE = 07/17/78)

D I S C R I M I N A N T A N A L Y S I S

SUMMARY TABLE INTEREST ITEMS

STEP NUMBER	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	NUMBER INCLUDED	WILKS' LAMBDA	SIG.	RAO'S V	CHANGE IN RAO'S V	SIG. OF CHANGE
1	INT5		6.45465	1	0.93291	0.000	25.81853	25.81853	0.000
2	INT6		4.64613	2	0.88687	0.000	44.93971	19.12119	0.001
3	INT2		3.83489	3	0.85033	0.000	60.65950	15.71979	0.003
4	INT4		3.26649	4	0.82023	0.000	74.60942	13.94992	0.007
5	INT3		2.86224	5	0.79460	0.000	87.06482	12.45540	0.014
6	INT8		3.01304	6	0.76844	0.000	100.28296	13.21814	0.010
7	INT1		2.15688	7	0.75010	0.000	109.61798	9.33502	0.053
8	INT7		0.64823	8	0.74462	0.000	112.56898	2.95100	0.566

DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	:	FUNCTIONS DERIVED	WILKS' LAMBDA	CHI-SQUARE	DF	SIGNIFICANCE
				:	0	0.7446	105.123	32	0.000
1	0.15900	50.71	0.370	:	1	0.8630	52.518	21	0.000
2	0.12175	38.83	0.329	:	2	0.9681	11.558	12	0.482
3	0.02748	8.76	0.164	:	3	0.9947	1.893	5	0.864
4	0.00532	1.70	0.073	:					

REMAINING COMPUTATIONS WILL BE BASED ON 4 DISCRIMINANT FUNCTION(S)

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1	FUNC 2	FUNC 3	FUNC 4
INT1	-0.21798	0.21523	-0.61376	0.39176
INT2	0.00625	-0.63649	0.17095	0.20853
INT3	-0.37281	0.36023	0.19505	-0.48274
INT4	0.14438	0.49169	0.37468	-0.05136
INT5	-0.56721	-0.37067	-0.28364	-0.46549
INT6	0.53027	-0.29498	-0.06164	-0.41634
INT7	-0.18621	0.04405	0.23618	0.26165
INT8	0.41605	0.10900	-0.51865	-0.23663

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

CENTROIDS OF GROUPS IN REDUCED SPACE INTEREST ITEMS

		FUNC 1	FUNC 2	FUNC 3	FUNC 4
GROUP	1	-0.56704	-0.33138	-0.03852	-0.00995
GROUP	2	0.11204	-0.00783	0.35666	0.02367
GROUP	3	-0.23789	0.66285	-0.06582	0.02744
GROUP	4	0.31678	-0.01123	-0.06014	-0.10177
GROUP	5	0.38975	-0.20700	-0.13868	0.11605

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 07/26/78

READ INPUT DATA

PREDICTION RESULTS - INTEREST ITEMS

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP GP. 1	GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1	82.	45. 54.9%	3. 3.7%	9. 11.0%	20. 24.4%	5. 6.1%
GROUP 2	61.	18. 29.5%	9. 14.8%	9. 14.8%	24. 39.3%	1. 1.6%
GROUP 3	63.	13. 20.6%	3. 4.8%	26. 41.3%	21. 33.3%	0. 0.0%
GROUP 4	95.	23. 24.2%	7. 7.4%	10. 10.5%	50. 52.6%	5. 5.3%
GROUP 5	63.	12. 19.0%	3. 4.8%	6. 9.5%	35. 55.6%	7. 11.1%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 37.64%

FILE NICHOLS (CREATION DATE = 07/17/78)

DISCRIMINANT ANALYSIS

SUMMARY TABLE — ACTIVITIES IN THE PAST YEAR

STEP NUMBER	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	NUMBER INCLUDED	WILKS' LAMBDA	SIG.	RAO'S V	CHANGE IN RAO'S V	SIG. OF CHANGE
1	ACT1		9.98895	1	0.89934	0.000	39.95522	39.95522	0.000
2	ACT2		2.99979	2	0.87002	0.000	52.00694	12.05173	0.017
3	ACT6		1.48810	3	0.85567	0.000	58.22668	6.21974	0.183
4	ACT3		1.23676	4	0.84388	0.000	63.70598	5.47929	0.242
5	ACT4		0.85202	5	0.83581	0.000	67.47098	3.76500	0.439

DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	FUNCTIONS DERIVED	WILKS' LAMBDA	CHI-SQUARE	DF	SIGNIFICANCE
				0	0.8358	63.849	20	0.000
1	0.13524	71.56	0.345	1	0.9489	18.691	12	0.096
2	0.05075	26.85	0.220	2	0.9970	1.067	6	0.983
3	0.00287	1.52	0.054	3	0.9999	0.047	2	0.977
4	0.00013	0.07	0.011					

REMAINING COMPUTATIONS WILL BE BASED ON 4 DISCRIMINANT FUNCTION(S)

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1	FUNC 2	FUNC 3	FUNC 4
ACT1	-0.90790	-0.20104	-0.25546	0.04765
ACT2	-0.14247	0.79633	0.24275	-0.32972
ACT3	0.28917	-0.22397	0.21820	0.50867
ACT4	-0.23198	-0.09181	0.85605	0.28276
ACT6	0.17313	-0.51466	0.29850	-0.75628

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

CENTROIDS OF GROUPS IN REDUCED SPACE ACTIVITIES IN THE PAST YEAR

		FUNC 1	FUNC 2	FUNC 3	FUNC 4
GROUP	1	0.12821	0.15286	0.08643	0.00543
GROUP	2	0.17685	0.32036	-0.08162	0.00631
GROUP	3	0.51270	-0.34227	-0.01656	0.00082
GROUP	4	-0.48396	-0.13830	-0.01077	0.00685
GROUP	5	-0.11024	0.05220	-0.00043	-0.02465

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 07/26/78

READ INPUT DATA

PREDICTION RESULTS - ACTIVITIES IN THE PAST YEAR

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP GP. 1	GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1	81.	31.	5.	18.	27.	0.
		38.3%	6.2%	22.2%	33.3%	0.0%
GROUP 2	60.	20.	10.	12.	18.	0.
		33.3%	16.7%	20.0%	30.0%	0.0%
GROUP 3	63.	20.	3.	29.	11.	0.
		31.7%	4.8%	46.0%	17.5%	0.0%
GROUP 4	96.	21.	1.	13.	61.	0.
		21.9%	1.0%	13.5%	63.5%	0.0%
GROUP 5	62.	21.	1.	9.	31.	0.
		33.9%	1.6%	14.5%	50.0%	0.0%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 36.19%

FILE NONAME (CREATION DATE = 08/28/78)

DISCRIMINANT ANALYSIS

SUMMARY TABLE — MOTIVATION FOR PARTICIPATION

STEP NUMBER	VARIABLE ENTERED	REMOVED	F TO ENTER OR REMOVE	NUMBER INCLUDED	WILKS' LAMBDA	SIG.	RAO'S V	CHANGE IN RAO'S V	SIG. OF CHANGE
1	MPROF		41.46007	1	0.68341	0.000	165.84001	165.84001	0.000
2	MESCAPE		4.32377	2	0.65184	0.000	187.13101	21.29100	0.000
3	MEXTERN		3.03092	3	0.63037	0.000	199.33473	12.20372	0.016
4	MSOCIAL		2.08872	4	0.61587	0.000	210.74242	11.40768	0.022
5	MCOGN		1.13886	5	0.60805	0.000	215.52278	4.78036	0.311

DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	:	FUNCTIONS DERIVED	WILKS' LAMBDA	CHI-SQUARE	DF	SIGNIFICANCE
				:	0	0.6081	177.605	20	0.000
1	0.52531	87.26	0.587	:	1	0.9275	26.879	12	0.008
2	0.04109	6.83	0.199	:	2	0.9656	12.504	6	0.052
3	0.03478	5.78	0.183	:	3	0.9992	0.300	2	0.861
4	0.00084	0.14	0.029	:					

REMAINING COMPUTATIONS WILL BE BASED ON 4 DISCRIMINANT FUNCTION(S)

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1	FUNC 2	FUNC 3	FUNC 4
MSOCIAL	-0.20415	-0.43525	-0.05457	1.01873
MEXTERN	0.03200	-1.03148	0.03266	-0.62068
MPROF	0.92303	0.60847	-0.35328	0.37450
MESCAPE	-0.14639	0.40327	-0.88889	-0.49771
MCOGN	0.02960	0.08666	0.60597	-0.05343

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

CENTROIDS OF GROUPS IN REDUCED SPACE MOTIVATION FOR PARTICIPATION

		FUNC 1	FUNC 2	FUNC 3	FUNC 4
GROUP	1	0.19752	0.26938	-0.20221	0.01596
GROUP	2	-0.41292	-0.05725	0.21844	0.04967
GROUP	3	1.15064	-0.17229	0.06462	-0.00486
GROUP	4	-0.50108	-0.20790	-0.16281	-0.01421
GROUP	5	-0.25311	0.18859	0.22322	-0.04188

FILE NONAME (CREATION DATE = 06/23/78)

- O N E W A Y -

VARIABLE JOBSAT JOB SATISFACTION

ANALYSIS OF VARIANCE

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
BETWEEN GROUPS	4	3.9789	0.9947	1.260	0.2858
WITHIN GROUPS	295	232.8896	0.7895		
TOTAL	299	236.8685			

GROUP	COUNT	MEAN	STANDARD DEVIATION	STANDARD ERROR	MINIMUM	MAXIMUM	95 PCT CONF INT FOR MEAN
GRP01	64	4.3015	0.8428	0.1054	2.2000	6.0000	4.0910 TO 4.5121
GRP02	48	4.2998	0.9028	0.1303	2.0000	6.0000	4.0376 TO 4.5619
GRP03	50	4.6120	0.8373	0.1184	1.5000	6.0000	4.3740 TO 4.8500
GRP04	81	4.3194	0.9761	0.1085	1.5000	5.8000	4.1036 TO 4.5353
GRP05	57	4.2895	0.8372	0.1109	2.4000	5.9000	4.0673 TO 4.5116
TOTAL	300	4.3555	0.8901	0.0514	1.5000	6.0000	4.2544 TO 4.4567
FIXED EFFECTS MODEL			0.8885	0.0513			4.2546 TO 4.4565
RANDOM EFFECTS MODEL			0.1294	0.0579			4.1948 TO 4.5162

RANDOM EFFECTS MODEL - ESTIMATE OF BETWEEN COMPONENT VARIANCE 0.0035

TESTS FOR HOMOGENEITY OF VARIANCES

COCHRANS C = MAX. VARIANCE/SUM(VARIANCES) = 0.2456, P = 0.351 (APPROX.)
BARTLETT-BOX F = 0.642, P = 0.633
MAXIMUM VARIANCE / MINIMUM VARIANCE = 1.359

FILE NONAME (CREATION DATE = 06/23/78)

D I S C R I M I N A N T A N A L Y S I S

SUMMARY TABLE ORGANIZATIONAL MEMBERSHIP

STEP NUMBER	VARIABLE ENTERED	REMOVED	F TO ENTER OR REMOVE	NUMBER INCLUDED	WILKS' LAMBDA	SIG.	RAO'S V	CHANGE IN RAO'S V	SIG. OF CHANGE
1	Q144		4.71307	1	0.95076	0.001	18.85211	18.85211	0.001
2	Q138		2.68283	2	0.92346	0.000	30.04912	11.19701	0.024
3	Q139		2.52271	3	0.89841	0.000	40.20688	10.15776	0.038
4	Q140		2.09081	4	0.87807	0.000	48.66930	8.46242	0.076
5	Q145		1.79558	5	0.86090	0.000	56.38184	7.71254	0.103
6	Q146		1.31150	6	0.84850	0.000	61.86766	5.48582	0.241
7	Q141		0.92905	7	0.83978	0.000	65.78142	3.91376	0.418

DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	:	FUNCTIONS DERIVED	WILKS' LAMBDA	CHI-SQUARE	DF	SIGNIFICANCE
				:	0	0.8398	63.209	28	0.000
1	0.09794	54.19	0.299	:	1	0.9220	29.386	18	0.044
2	0.04711	26.07	0.212	:	2	0.9655	12.721	10	0.240
3	0.03268	18.08	0.178	:	3	0.9970	1.081	4	0.897
4	0.00299	1.65	0.055	:					

REMAINING COMPUTATIONS WILL BE BASED ON 4 DISCRIMINANT FUNCTION(S)

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1	FUNC 2	FUNC 3	FUNC 4
Q138	0.52952	-0.12694	0.13519	-0.80853
Q139	-0.02339	-0.19131	0.93017	0.35689
Q140	0.02125	-0.62165	-0.47956	0.33635
Q141	-0.03783	-0.47422	-0.05421	0.28117
Q144	0.75533	-0.07724	-0.11851	0.31049
Q145	-0.45771	-0.24024	0.03625	-0.43992
Q146	0.16867	0.57266	-0.05989	0.16598

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

CENTROIDS OF GROUPS IN REDUCED SPACE — ORGANIZATIONAL MEMBERSHIP

		FUNC 1	FUNC 2	FUNC 3	FUNC 4
GROUP	1	-0.09250	0.35070	-0.13222	-0.00229
GROUP	2	-0.14521	0.00428	0.26695	0.08546
GROUP	3	0.13482	0.00317	0.22854	-0.09441
GROUP	4	0.40071	-0.13586	-0.11850	0.02329
GROUP	5	-0.47171	-0.26376	-0.13228	-0.02178

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES 05/23/73

PREDICTION RESULTS - ORGANIZATIONAL MEMBERSHIP

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP GP. 1	GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1	84.	47. 56.0%	3. 3.6%	0. 0.0%	28. 33.3%	6. 7.1%
GROUP 2	62.	27. 43.5%	8. 12.9%	1. 1.6%	18. 29.0%	8. 12.9%
GROUP 3	63.	29. 46.0%	6. 9.5%	2. 3.2%	24. 38.1%	2. 3.2%
GROUP 4	96.	28. 29.2%	5. 5.2%	0. 0.0%	58. 60.4%	5. 5.2%
GROUP 5	64.	20. 31.3%	3. 4.7%	2. 3.1%	24. 37.5%	15. 23.4%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 35.23%

FILE NONAME (CREATION DATE = 06/22/78)

DISCRIMINANT ANALYSIS

SUMMARY TABLE

NEWSPAPER PREFERENCE

STEP NUMBER	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	NUMBER INCLUDED	WILKS' LAMBDA	SIG.	RAO'S V	CHANGE IN RAO'S V	SIG. OF CHANGE
1	Q136		6.24670	1	0.91698	0.000	24.98596	24.98596	0.000
2	Q134		1.58719	2	0.89629	0.000	31.70598	6.72002	0.151
3	Q133		0.84103	3	0.88542	0.001	35.25262	3.54665	0.471

DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	:	FUNCTIONS DERIVED	WILKS' LAMBDA	CHI-SQUARE	DF	SIGNIFICANCE
				:	0	0.8854	33.587	12	0.001
1	0.11326	88.67	0.319	:	1	0.9857	3.974	6	0.680
2	0.01137	8.90	0.106	:	2	0.9969	0.854	2	0.652
3	0.00310	2.43	0.056	:					

REMAINING COMPUTATIONS WILL BE BASED ON 3 DISCRIMINANT FUNCTION(S)

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1	FUNC 2	FUNC 3
Q133	-0.23390	-0.65491	0.74798
Q134	-0.34665	-0.50166	-0.81810
Q136	0.86171	-0.50289	-0.09689

CENTROIDS OF GROUPS IN REDUCED SPACE

		FUNC 1	FUNC 2	FUNC 3
GROUP	1	0.46236	-0.10413	0.01853
GROUP	2	-0.09222	0.08246	0.05391
GROUP	3	-0.55457	-0.16078	0.00316
GROUP	4	-0.05102	0.10793	0.02458
GROUP	5	0.03044	0.04414	-0.11641

PREDICTION RESULTS - NEWSPAPER PREFERENCE

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP GP. 1	GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1	67.	34. 50.7%	0. 0.0%	2. 3.0%	31. 46.3%	0. 0.0%
GROUP 2	46.	12. 26.1%	0. 0.0%	4. 8.7%	30. 65.2%	0. 0.0%
GROUP 3	44.	6. 13.6%	0. 0.0%	6. 13.6%	32. 72.7%	0. 0.0%
GROUP 4	75.	18. 24.0%	0. 0.0%	6. 8.0%	51. 68.0%	0. 0.0%
GROUP 5	49.	15. 30.6%	0. 0.0%	2. 4.1%	32. 65.3%	0. 0.0%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 32.38%

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF GRP BY Q137

WHAT SECTION OF THE NEWSPAPER DO YOU READ FIRST AFTER READING THE GENERAL NEWS ON PAGE ONE?

GRP Q137

FREQUENCY / EXPECTED / DEVIATION / PERCENT / ROW PCT / COL PCT	.	EDITORIAL 1	SPORTS 2	CLASSIFIED ADS 3	AMUSEMENT 4	WOMEN'S SECTION 6	TOTAL
1	4	20	8	10	23	19	80
	.	17.8	17.8	11.4	18.3	14.6	
	.	2.2	-9.8	-1.4	4.7	4.4	
	.	5.71	2.29	2.86	6.57	5.43	22.86
	.	25.00	10.00	12.50	28.75	23.75	
	.	25.64	10.26	20.00	28.75	29.69	
2	6	14	12	5	17	8	56
	.	12.5	12.5	8.0	12.8	10.2	
	.	1.5	-0.5	-3.0	4.2	-2.2	
	.	4.00	3.43	1.43	4.86	2.29	16.00
	.	25.00	21.43	8.93	30.36	14.29	
	.	17.95	15.38	10.00	21.25	12.50	
3	2	14	11	16	7	13	61
	.	13.6	13.6	8.7	13.9	11.2	
	.	0.4	-2.6	7.3	-6.9	1.8	
	.	4.00	3.14	4.57	2.00	3.71	17.43
	.	22.95	18.03	26.23	11.48	21.31	
	.	17.95	14.10	32.00	8.75	20.31	
4	3	12	34	11	23	13	93
	.	20.7	20.7	13.3	21.3	17.0	
	.	-8.7	13.3	-2.3	1.7	-4.0	
	.	3.43	9.71	3.14	6.57	3.71	26.57
	.	12.90	36.56	11.83	24.73	13.98	
	.	15.38	43.59	22.00	28.75	20.31	
5	4	18	13	8	10	11	60
	.	13.4	13.4	8.6	13.7	11.0	
	.	4.6	-0.4	-0.6	-3.7	0.0	
	.	5.14	3.71	2.29	2.86	3.14	17.14
	.	30.00	21.67	13.33	16.67	18.33	
	.	23.08	16.67	16.00	12.50	17.19	
TOTAL	.	78	78	50	80	64	350
	.	22.29	22.29	14.29	22.86	18.29	100.00

STATISTICS FOR 2-WAY TABLES

CHI-SQUARE	38.253	DF= 16	PROB=0.0014
PHI	0.331		
CONTINGENCY COEFFICIENT	0.314		
CRAMER'S V	0.165		
LIKELIHOOD RATIO CHISQUARE	38.446	DF= 16	PROB=0.0013

STATISTICAL ANALYSIS SYSTEM

TABLE OF GRP BY Q130

GRP Q130 RADIO STATION PREFERENCE

FREQUENCY / EXPECTED / DEVIATION / PERCENT / ROW PCT / COL PCT	.	WNOX 2	WKGN 3	WIVK 4	WRJZ 5	WJBE WKXV WEZK WUOT 7	TOTAL
1	7	17	11	8	12	29	77
	.	12.4	11.2	10.7	12.9	29.8	
	.	4.6	-0.2	-2.7	-0.9	-0.8	
	.	5.26	3.41	2.48	3.72	8.98	23.84
	.	22.08	14.29	10.39	15.58	37.66	
	.	32.69	23.40	17.78	22.22	23.20	
2	12	9	8	3	5	25	50
	.	8.0	7.3	7.0	8.4	19.3	
	.	1.0	0.7	-4.0	-3.4	5.7	
	.	2.79	2.48	0.93	1.55	7.74	15.48
	.	18.00	16.00	6.00	10.00	50.00	
	.	17.31	17.02	6.67	9.26	20.00	
3	4	7	4	14	6	28	59
	.	9.5	8.6	8.2	9.9	22.8	
	.	-2.5	-4.6	5.8	-3.9	5.2	
	.	2.17	1.24	4.33	1.86	8.67	18.27
	.	11.86	6.78	23.73	10.17	47.46	
	.	13.46	8.51	31.11	11.11	22.40	
4	16	8	12	12	19	29	80
	.	12.9	11.6	11.1	13.4	31.0	
	.	-4.9	0.4	0.9	5.6	-2.0	
	.	2.48	3.72	3.72	5.88	8.98	24.77
	.	10.00	15.00	15.00	23.75	36.25	
	.	15.38	25.53	26.67	35.19	23.20	
5	7	11	12	8	12	14	57
	.	9.2	8.3	7.9	9.5	22.1	
	.	1.8	3.7	0.1	2.5	-8.1	
	.	3.41	3.72	2.48	3.72	4.33	17.65
	.	19.30	21.05	14.04	21.05	24.56	
	.	21.15	25.53	17.78	22.22	11.20	
TOTAL	.	52	47	45	54	125	323
	.	16.10	14.55	13.93	16.72	38.70	100.00

STATISTICS FOR 2-WAY TABLES

CHI-SQUARE	27.802	DF= 16	PROB=0.0334
PHI	0.293		
CONTINGENCY COEFFICIENT	0.282		
CRAMER'S V	0.147		
LIKELIHOOD RATIO CHISQUARE	28.711	DF= 16	PROB=0.0260

FILE NONAME (CREATION DATE = 06/22/78)

D I S C R I M I N A N T A N A L Y S I S

SUMMARY TABLE

TELEVISION VIEWING HABITS

STEP NUMBER	VARIABLE ENTERED	REMOVED	F TO ENTER OR REMOVE	NUMBER INCLUDED	WILKS' LAMBDA	SIG.	RAO'S V	CHANGE IN RAO'S V	SIG. OF CHANGE
1	TVSPRTS		4.84275	1	0.94440	0.001	19.37108	19.37108	0.001
2	TVIMPRT		2.69559	2	0.91434	0.000	30.54311	11.17203	0.025
3	TVSITCOM		2.50322	3	0.88717	0.000	40.87273	10.32962	0.035
4	TVVAR		2.28400	4	0.86299	0.000	50.65532	9.78259	0.044
5	TVACT		2.16890	5	0.84055	0.000	59.71393	9.05861	0.060
6	TVDRM		1.66652	6	0.82360	0.000	66.89519	7.18126	0.127
7	Q158		1.36788	7	0.80988	0.000	72.74350	5.84831	0.211
8	TVPBS		1.23111	8	0.79769	0.000	78.03236	5.28886	0.259
9	TVSCIFI		1.18156	9	0.78611	0.000	83.30034	5.26797	0.261
10	TVTLK		0.58259	10	0.78043	0.000	85.82690	2.52657	0.640

DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION
1	0.15489	59.36	0.366
2	0.06260	23.99	0.243
3	0.03392	13.00	0.181
4	0.00951	3.65	0.097

FUNCTIONS DERIVED	WILKS' LAMBDA	CHI-SQUARE	DF	SIGNIFICANCE
0	0.7807	80.575	40	0.000
1	0.9016	33.702	27	0.175
2	0.9581	13.938	16	0.603
3	0.9906	3.082	7	0.877

REMAINING COMPUTATIONS WILL BE BASED ON 4 DISCRIMINANT FUNCTION(S)

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1	FUNC 2	FUNC 3	FUNC 4
TVIMPRT	0.56586	0.33734	0.20008	0.30823
TVTLK	0.08248	-0.21312	-0.40929	-0.01125
TVSITCOM	-0.48040	-0.48340	-0.29551	-0.09533
TVVAR	0.29531	0.10849	0.18717	-1.00214
TVACT	-0.23384	0.60811	0.03801	0.21077
TVSCIFI	-0.23243	-0.21692	-0.43905	0.05303
TVDRM	0.27158	-0.06896	-0.58508	0.14144
TVPBS	0.12666	-0.35759	0.40551	-0.02127
TVSPRTS	-0.65999	0.14840	0.17129	-0.44768
Q158	0.12400	0.49575	-0.00977	0.07157

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

CENTROIDS OF GROUPS IN REDUCED SPACE — TELEVISION VIEWING HABITS

	FUNC 1	FUNC 2	FUNC 3	FUNC 4
GROUP 1	0.43153	-0.16109	-0.21613	0.02653
GROUP 2	0.26989	-0.11279	0.36051	0.07278
GROUP 3	0.18143	0.50610	0.00515	-0.05792
GROUP 4	-0.48833	0.02556	-0.05916	0.08987
GROUP 5	-0.24045	-0.20726	0.04249	-0.18053

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

PREDICTION RESULTS — TELEVISION VIEWING HABITS

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP GP. 1	GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1	77.	42. 54.5%	5. 6.5%	9. 11.7%	18. 23.4%	3. 3.9%
GROUP 2	53.	17. 32.1%	11. 20.8%	5. 9.4%	20. 37.7%	0. 0.0%
GROUP 3	56.	15. 26.8%	7. 12.5%	11. 19.6%	22. 39.3%	1. 1.8%
GROUP 4	89.	17. 19.1%	3. 3.4%	8. 9.0%	57. 64.0%	4. 4.5%
GROUP 5	59.	18. 30.5%	2. 3.4%	4. 6.8%	29. 49.2%	6. 10.2%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 38.02%

FILE NONAME (CREATION DATE = 06/29/78)

DISCRIMINANT ANALYSIS

SUMMARY TABLE — MAGAZINE PREFERENCE

STEP NUMBER	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	NUMBER INCLUDED	WILKS' LAMBDA	SIG.	RAO'S V	CHANGE IN RAO'S V	SIG. OF CHANGE
1	Q189		9.10595	1	0.90087	0.000	36.42328	36.42328	0.000
2	PTRADWM		6.89347	2	0.83140	0.000	64.76993	28.34665	0.000
3	PFAM		4.89535	3	0.78469	0.000	85.24927	20.47934	0.000
4	PNEWS		3.11053	4	0.75602	0.000	98.28050	13.03123	0.011
5	PMECH		2.93737	5	0.72979	0.000	111.82521	13.54471	0.009
6	Q180		2.83090	6	0.70529	0.000	125.61284	13.78763	0.008
7	Q188		1.51392	7	0.69239	0.000	132.22914	6.61630	0.158
8	PMEN		1.49254	8	0.67987	0.000	138.94089	6.71175	0.152
9	Q174		1.55424	9	0.66703	0.000	145.67604	6.73515	0.151
10	PLIT		0.66214	10	0.66159	0.000	148.62332	2.94728	0.567
11	PMODWM		0.98478	11	0.65357	0.000	153.04774	4.42442	0.352

DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	FUNCTIONS DERIVED	WILKS' LAMBDA	CHI-SQUARE	DF	SIGNIFICANCE
				0	0.6536	139.072	44	0.000
1	0.26088	56.42	0.455	1	0.8241	63.269	30	0.000
2	0.10061	21.76	0.302	2	0.9070	31.920	18	0.022
3	0.08024	17.35	0.273	3	0.9798	6.682	8	0.571
4	0.02065	4.47	0.142					

REMAINING COMPUTATIONS WILL BE BASED ON 4 DISCRIMINANT FUNCTION(S)

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1	FUNC 2	FUNC 3	FUNC 4
PNEWS	-0.09165	0.20538	0.56279	-0.15712
PTRADWM	0.03565	0.83498	-0.03286	0.11652
PMECH	0.43590	-0.14882	0.28876	0.00824
PMEN	0.13659	0.44671	0.15474	-0.24566
PMODWM	0.07873	0.30015	-0.33841	-0.12220
PLIT	0.03970	-0.34422	0.30553	0.29695
PFAM	-0.34761	-0.60818	-0.38033	0.09726
Q174	-0.02184	-0.28012	-0.36413	-0.41789
Q180	-0.40173	-0.06934	0.09133	0.18319
Q188	-0.21128	-0.15878	0.12217	0.59096
Q189	0.55172	0.36147	-0.51134	0.43127

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

CENTROIDS OF GROUPS IN REDUCED SPACE — MAGAZINE PREFERENCE

		FUNC 1	FUNC 2	FUNC 3	FUNC 4
GROUP	1	-0.50260	0.44260	-0.05803	0.00601
GROUP	2	-0.29279	-0.29201	0.43796	0.16074
GROUP	3	-0.34710	-0.43793	-0.38736	-0.07590
GROUP	4	0.60075	0.06509	-0.14456	0.11495
GROUP	5	0.32298	0.01329	0.25774	-0.25385

PREDICTION RESULTS - MAGAZINE PREFERENCE

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP GP. 1	GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1	76.	42. 55.3%	8. 10.5%	11. 14.5%	14. 18.4%	1. 1.3%
GROUP 2	54.	12. 22.2%	17. 31.5%	5. 9.3%	10. 18.5%	10. 18.5%
GROUP 3	56.	14. 25.0%	8. 14.3%	18. 32.1%	13. 23.2%	3. 5.4%
GROUP 4	90.	18. 20.0%	7. 7.8%	8. 8.9%	53. 58.9%	4. 4.4%
GROUP 5	60.	14. 23.3%	6. 10.0%	5. 8.3%	26. 43.3%	9. 15.0%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 41.37%

FILE NONAME (CREATION DATE = 06/23/78)

D I S C R I M I N A N T A N A L Y S I S

SUMMARY TABLE

DEMOGRAPHIC ITEMS

STEP NUMBER	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	NUMBER INCLUDED	WILKS' LAMBDA	SIG.	RAO'S V	CHANGE IN RAO'S V	SIG. OF CHANGE
1	CHILDREN		5.80362	1	0.93428	0.000	23.21422	23.21422	0.000
2	EDUC		4.68857	2	0.88389	0.000	42.09683	18.88261	0.001
3	INCOME		1.56427	3	0.86734	0.000	48.39975	6.30292	0.178
4	AGE		1.23064	4	0.85448	0.000	53.59985	5.20010	0.267

DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	FUNCTIONS DERIVED	WILKS' LAMBDA	CHI-SQUARE	DF	SIGNIFICANCE
				0	0.8545	51.816	16	0.000
1	0.08773	54.01	0.284	1	0.9294	24.108	9	0.004
2	0.05275	32.48	0.224	2	0.9785	7.169	4	0.127
3	0.01955	12.03	0.138	3	0.9976	0.791	1	0.374
4	0.00240	1.48	0.049					

REMAINING COMPUTATIONS WILL BE BASED ON 4 DISCRIMINANT FUNCTION(S)

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1	FUNC 2	FUNC 3	FUNC 4
AGE	0.34211	0.34085	-0.23034	1.02770
INCOME	-0.19600	-0.11861	1.09140	0.01085
EDUC	-0.38797	0.90245	-0.14701	-0.22190
CHILDREN	-0.75381	0.23951	-0.06416	-0.82151

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

CENTROIDS OF GROUPS IN REDUCED SPACE — DEMOGRAPHIC ITEMS

		FUNC 1	FUNC 2	FUNC 3	FUNC 4
GROUP	1	-0.03768	-0.18815	-0.22303	-0.00707
GROUP	2	-0.00364	0.46583	-0.05416	-0.04120
GROUP	3	0.57499	-0.00088	0.05081	0.04794
GROUP	4	-0.05517	-0.15461	0.15053	-0.05043
GROUP	5	-0.37775	0.05150	0.06488	0.07653

STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

PREDICTION RESULTS - DEMOGRAPHIC ITEMS

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP GP. 1	GP. 2	GP. 3	GP. 4	GP. 5
GROUP 1	77.	28.	4.	10.	28.	7.
		36.4%	5.2%	13.0%	36.4%	9.1%
GROUP 2	54.	16.	8.	8.	17.	5.
		29.6%	14.8%	14.8%	31.5%	9.3%
GROUP 3	54.	9.	4.	20.	19.	2.
		16.7%	7.4%	37.0%	35.2%	3.7%
GROUP 4	89.	27.	7.	10.	38.	7.
		30.3%	7.9%	11.2%	42.7%	7.9%
GROUP 5	61.	18.	5.	2.	26.	10.
		29.5%	8.2%	3.3%	42.6%	16.4%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 31.04%

STATISTICAL ANALYSIS SYSTEM

TABLE OF GRP BY RACE

GRP RACE
DEMOGRAPHIC--RACE

FREQUENCY
EXPECTED
DEVIATION
CELL CHI2
PERCENT
ROW PCT
COL PCT

GRP	1	2	TOTAL
1	9	75	84
	10.9	73.1	
	-1.9	1.9	
	0.3	0.1	
	2.44	20.33	22.76
	10.71	89.29	
	18.75	23.36	
2	10	52	62
	8.1	53.9	
	1.9	-1.9	
	0.5	0.1	
	2.71	14.09	16.80
	16.13	83.87	
	20.83	16.20	
3	12	51	63
	8.2	54.8	
	3.8	-3.8	
	1.8	0.3	
	3.25	13.82	17.07
	19.05	80.95	
	25.00	15.89	
4	8	88	96
	12.5	83.5	
	-4.5	4.5	
	1.6	0.2	
	2.17	23.85	26.02
	8.33	91.67	
	16.67	27.41	
5	9	55	64
	8.3	55.7	
	0.7	-0.7	
	0.1	0.0	
	2.44	14.91	17.34
	14.06	85.94	
	18.75	17.13	
TOTAL	48	321	369
	13.01	86.99	100.00

STATISTICS FOR 2-WAY TABLES

CHI-SQUARE	4.872	DF= 4	PROB=0.3007

DEMOGRAPHIC--RACE

PHI	0.115		
CONTINGENCY COEFFICIENT	0.114		
CRAMER'S V	0.115		
LIKELIHOOD RATIO CHISQUARE	4.876	DF= 4	PROB=0.3003

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF GRP BY RELIG

GRP RELIG
DEMOGRAPHIC--RELIGIOUS AFFILIATION

FREQUENCY / EXPECTED / DEVIATION / CELL CHI2 / PERCENT / ROW PCT / COL PCT	.	1	2	3	TOTAL
1	1	57	7	19	83
	.	59.4	7.4	16.2	
	.	-2.4	-0.4	2.8	
	.	0.1	0.0	0.5	
	.	15.92	1.96	5.31	23.18
	.	68.67	8.43	22.89	
	.	22.27	21.88	27.14	
2	3	35	5	19	59
	.	42.2	5.3	11.5	
	.	-7.2	-0.3	7.5	
	.	1.2	0.0	4.8	
	.	9.78	1.40	5.31	16.48
	.	59.32	8.47	32.20	
	.	13.67	15.63	27.14	
3	1	52	2	8	62
	.	44.3	5.5	12.1	
	.	7.7	-3.5	-4.1	
	.	1.3	2.3	1.4	
	.	14.53	0.56	2.23	17.32
	.	83.87	3.23	12.90	
	.	20.31	6.25	11.43	
4	3	67	12	14	93
	.	66.5	8.3	18.2	
	.	0.5	3.7	-4.2	
	.	0.0	1.6	1.0	
	.	18.72	3.35	3.91	25.98
	.	72.04	12.90	15.05	
	.	26.17	37.50	20.00	
5	3	45	6	10	61
	.	43.6	5.5	11.9	
	.	1.4	0.5	-1.9	
	.	0.0	0.1	0.3	
	.	12.57	1.68	2.79	17.04
	.	73.77	9.84	16.39	
	.	17.58	18.75	14.29	
TOTAL	.	256	32	70	358
	.	71.51	8.94	19.55	100.00

STATISTICS FOR 2-WAY TABLES

CHI-SQUARE	14.661	DF= 8	PROB=0.0661

DEMOGRAPHIC-- RELIGIOUS AFFILIATION

PHI	0.202		
CONTINGENCY COEFFICIENT	0.198		
CRAMER'S V	0.143		
LIKELIHOOD RATIO CHISQUARE	14.685	DF= 8	PROB=0.0656

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF GRP BY NONCR

DEMOGRAPHIC--NUMBER OF NON-CREDIT COURSES PREVIOUSLY TAKEN AT UTK

GRP	NONCR 0	1	2 OR MORE	TOTAL
1	42	16	26	84
	48.5	19.6	15.9	
	-6.5	-3.6	10.1	
	11.38	4.34	7.05	22.76
	50.00	19.05	30.95	
	19.72	18.60	37.14	
2	36	16	10	62
	35.8	14.4	11.8	
	0.2	1.6	-1.8	
	9.76	4.34	2.71	16.80
	58.06	25.81	16.13	
	16.90	18.60	14.29	
3	41	13	9	63
	36.4	14.7	12.0	
	4.6	-1.7	-3.0	
	11.11	3.52	2.44	17.07
	65.08	20.63	14.29	
	19.25	15.12	12.86	
4	56	27	13	96
	55.4	22.4	18.2	
	0.6	4.6	-5.2	
	15.18	7.32	3.52	26.02
	58.33	28.13	13.54	
	26.29	31.40	18.57	
5	38	14	12	64
	36.9	14.9	12.1	
	1.1	-0.9	-0.1	
	10.30	3.79	3.25	17.34
	59.38	21.88	18.75	
	17.84	16.28	17.14	
TOTAL	213	86	70	369
	57.72	23.31	18.97	100.00

STATISTICS FOR 2-WAY TABLES

CHI-SQUARE	12.365	DF= 8	PROB=0.1357
PHI	0.183		
CONTINGENCY COEFFICIENT	0.180		
CRAMER'S V	0.129		
LIKELIHOOD RATIO CHISQUARE	11.590	DF= 8	PROB=0.1704

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF GRP BY OCCU

GRP DEMOGRAPHIC--OCCUPATION OCCU

FREQUENCY / EXPECTED / DEVIATION / PERCENT / ROW PCT / COL PCT	.	PROFESSIONAL 1	MANAGER 2	CLERICAL 3	SALES PERSON 4	RETIRED, HOMEMAKER, SKILLED WORKER 5	TOTAL
1	13	32	8	20	4	7	71
	.	38.1	5.6	9.6	8.8	9.0	
	.	-6.1	2.4	10.4	-4.8	-2.0	
	.	9.64	2.41	6.02	1.20	2.11	21.39
	.	45.07	11.27	28.17	5.63	9.86	
	.	17.98	30.77	44.44	9.76	16.67	
2	7	31	4	4	6	10	55
	.	29.5	4.3	7.5	6.8	7.0	
	.	1.5	-0.3	-3.5	-0.8	3.0	
	.	9.34	1.20	1.20	1.81	3.01	16.57
	.	56.36	7.27	7.27	10.91	18.18	
	.	17.42	15.38	8.89	14.63	23.81	
3	1	28	3	9	9	13	62
	.	33.2	4.9	8.4	7.7	7.8	
	.	-5.2	-1.9	0.6	1.3	5.2	
	.	8.43	0.90	2.71	2.71	3.92	18.67
	.	45.16	4.84	14.52	14.52	20.97	
	.	15.73	11.54	20.00	21.95	30.95	
4	14	45	8	6	17	6	82
	.	44.0	6.4	11.1	10.1	10.4	
	.	1.0	1.6	-5.1	6.9	-4.4	
	.	13.55	2.41	1.81	5.12	1.81	24.70
	.	54.88	9.76	7.32	20.73	7.32	
	.	25.28	30.77	13.33	41.46	14.29	
5	2	42	3	6	5	6	62
	.	33.2	4.9	8.4	7.7	7.8	
	.	8.8	-1.9	-2.4	-2.7	-1.8	
	.	12.65	0.90	1.81	1.51	1.81	18.67
	.	67.74	4.84	9.68	8.06	9.68	
	.	23.60	11.54	13.33	12.20	14.29	
TOTAL	.	178	26	45	41	42	332
	.	53.61	7.83	13.55	12.35	12.65	100.00

STATISTICS FOR 2-WAY TABLES

WARNING: TABLE IS SO SPARSE THAT CHI-SQUARE MAY NOT BE A VALID TEST.

CHI-SQUARE	38.917	DF= 16	PROB=0.0011
PHI	0.342		
CONTINGENCY COEFFICIENT	0.324		
CRAMER'S V	0.171		
LIKELIHOOD RATIO CHISQUARE	36.778	DF= 16	PROB=0.0023

STATISTICAL ANALYSIS SYSTEM

TABLE OF GRP BY MSTAT

GRP MSTAT DEMOGRAPHIC--MARITAL STATUS

FREQUENCY / EXPECTED / DEVIATION / PERCENT / ROW PCT / COL PCT	.	SINGLE 1	MARRIED 2	SEPARATED, DIVORCED, WIDOWED 3	TOTAL
1	1	29	38	16	83
	.	26.7	45.7	10.6	
	.	2.3	-7.7	5.4	
	.	7.90	10.35	4.36	22.62
	.	34.94	45.78	19.28	
	.	24.58	18.81	34.04	
2	1	16	39	6	61
	.	19.6	33.6	7.8	
	.	-3.6	5.4	-1.8	
	.	4.36	10.63	1.63	16.62
	.	26.23	63.93	9.84	
	.	13.56	19.31	12.77	
3	0	12	40	11	63
	.	20.3	34.7	8.1	
	.	-8.3	5.3	2.9	
	.	3.27	10.90	3.00	17.17
	.	19.05	63.49	17.46	
	.	10.17	19.80	23.40	
4	0	39	50	7	96
	.	30.9	52.8	12.3	
	.	8.1	-2.8	-5.3	
	.	10.63	13.62	1.91	26.16
	.	40.63	52.08	7.29	
	.	33.05	24.75	14.89	
5	0	22	35	7	64
	.	20.6	35.2	8.2	
	.	1.4	-0.2	-1.2	
	.	5.99	9.54	1.91	17.44
	.	34.38	54.69	10.94	
	.	18.64	17.33	14.89	
TOTAL	.	118	202	47	367
	.	32.15	55.04	12.81	100.00

STATISTICS FOR 2-WAY TABLES

CHI-SQUARE	16.267	DF= 8	PROB=0.0387
PHI	0.211		
CONTINGENCY COEFFICIENT	0.206		
CRAMER'S V	0.149		
LIKELIHOOD RATIO CHISQUARE	16.711	DF= 8	PROB=0.0333

STATISTICAL ANALYSIS SYSTEM

TABLE OF GRP1 BY CHILDREN

GRP1 CHILDREN DEMOGRAPHIC--NUMBER OF CHILDREN

FREQUENCY / EXPECTED / DEVIATION / CELL CHI2 / PERCENT / ROW PCT / COL PCT	.	0	1	2	3 OR MORE 3	TOTAL
1	1	54	12	9	8	83
	.	51.1	11.6	11.6	8.7	
	.	2.9	0.4	-2.6	-0.7	
	.	0.2	0.0	0.6	0.1	
	.	14.84	3.30	2.47	2.20	22.80
	.	65.06	14.46	10.84	9.64	
	.	24.11	23.53	17.65	21.05	
2	0	36	6	14	6	62
	.	38.2	8.7	8.7	6.5	
	.	-2.2	-2.7	5.3	-0.5	
	.	0.1	0.8	3.2	0.0	
	.	9.89	1.65	3.85	1.65	17.03
	.	58.06	9.68	22.58	9.68	
	.	16.07	11.76	27.45	15.79	
3	3	22	13	11	14	60
	.	36.9	8.4	8.4	6.3	
	.	-14.9	4.6	2.6	7.7	
	.	6.0	2.5	0.8	9.6	
	.	6.04	3.57	3.02	3.85	16.48
	.	36.67	21.67	18.33	23.33	
	.	9.82	25.49	21.57	36.84	
4	0	65	11	12	8	96
	.	59.1	13.5	13.5	10.0	
	.	5.9	-2.5	-1.5	-2.0	
	.	0.6	0.4	0.2	0.4	
	.	17.86	3.02	3.30	2.20	26.37
	.	67.71	11.46	12.50	8.33	
	.	29.02	21.57	23.53	21.05	
5	1	47	9	5	2	63
	.	38.8	8.8	8.8	6.6	
	.	8.2	0.2	-3.8	-4.6	
	.	1.7	0.0	1.7	3.2	
	.	12.91	2.47	1.37	0.55	17.31
	.	74.60	14.29	7.94	3.17	
	.	20.98	17.65	9.80	5.26	
TOTAL	.	224	51	51	38	364
	.	61.54	14.01	14.01	10.44	100.00

STATISTICS FOR 2-WAY TABLES

CHI-SQUARE	32.157	DF= 12	PROB=0.0013

DEMOGRAPHIC--NUMBER OF CHILDREN

PHI	0.297		
CONTINGENCY COEFFICIENT	0.285		
CRAMER'S V	0.172		
LIKELIHOOD RATIO CHISQUARE	31.342	DF= 12	PROB=0.0017

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF GRP BY ZIP

DEMOGRAPHIC--ZIP CODE

GRP / ZIP	.	1	2	3	37919	37920	TOTAL
1	17	14	13	12	19	9	67
FREQUENCY							
EXPECTED	.	18.4	9.1	9.8	21.0	8.8	
DEVIATION	.	-4.4	3.9	2.2	-2.0	0.2	
CELL CHI2	.	1.0	1.7	0.5	0.2	0.0	
PERCENT	.	4.98	4.63	4.27	6.76	3.20	23.84
ROW PCT	.	20.90	19.40	17.91	28.36	13.43	
COL PCT	.	18.18	34.21	29.27	21.59	24.32	
2	15	9	6	5	22	5	47
	.	12.9	6.4	6.9	14.7	6.2	
	.	-3.9	-0.4	-1.9	7.3	-1.2	
	.	1.2	0.0	0.5	3.6	0.2	
	.	3.20	2.14	1.78	7.83	1.78	16.73
	.	19.15	12.77	10.64	46.81	10.64	
	.	11.69	15.79	12.20	25.00	13.51	
3	15	15	3	5	17	8	48
	.	13.2	6.5	7.0	15.0	6.3	
	.	1.8	-3.5	-2.0	2.0	1.7	
	.	0.3	1.9	0.6	0.3	0.4	
	.	5.34	1.07	1.78	6.05	2.85	17.08
	.	31.25	6.25	10.42	35.42	16.67	
	.	19.48	7.89	12.20	19.32	21.62	
4	26	26	11	9	15	9	70
	.	19.2	9.5	10.2	21.9	9.2	
	.	6.8	1.5	-1.2	-6.9	-0.2	
	.	2.4	0.2	0.1	2.2	0.0	
	.	9.25	3.91	3.20	5.34	3.20	24.91
	.	37.14	15.71	12.86	21.43	12.86	
	.	33.77	28.95	21.95	17.05	24.32	
5	15	13	5	10	15	6	49
	.	13.4	6.6	7.1	15.3	6.5	
	.	-0.4	-1.6	2.9	-0.3	-0.5	
	.	0.0	0.4	1.1	0.0	0.0	
	.	4.63	1.78	3.56	5.34	2.14	17.44
	.	26.53	10.20	20.41	30.61	12.24	
	.	16.88	13.16	24.39	17.05	16.22	
TOTAL	.	77	38	41	88	37	281
	.	27.40	13.52	14.59	31.32	13.17	100.00

STATISTICS FOR 2-WAY TABLES

CHI-SQUARE	18.977	DF= 16	PROB=0.2699

DEMOGRAPHIC--ZIP CODE

PHI	0.260		
CONTINGENCY COEFFICIENT	0.252		
CRAMER'S V	0.130		
LIKELIHOOD RATIO CHISQUARE	18.981	DF= 16	PROB=0.2696

APPENDIX G

COMPARISON OF RINELLA'S STUDY AND THE UNIVERSITY OF TENNESSEE, KNOXVILLE STUDY

COMPARISON OF RINELLA'S STUDY AND THE UNIVERSITY OF TENNESSEE, KNOXVILLE STUDY

Since Rinella utilized multivariate analysis of variance to analyze the data in The University of Maryland study, a multivariate analysis of variance was also conducted on the data obtained in The University of Tennessee, Knoxville. A brief summary of the major differences and similarities in the two studies is presented in this Appendix. The major findings are as follows:

1. The data from Rinella's study indicate that on the Opinion dimension of the research instrument multivariate analysis of variance (MANOVA) reveals significant differences among the five learning groups. The Minorities and Social Welfare, Business, Family Structure and Pollution subscales accounted for the significant multivariate differences among the five learning groups.

Data on The University of Tennessee, Knoxville study revealed that the Law and Order, Family Structure, and Teaching Approach subscales accounted for significant multivariate differences among the five learning groups.

The Family Structure subscale was the only significant variable on each of the studies.

2. On the Motivation for Participation dimension of Rinella's research instrument, the data revealed the statistically significant subscales were Professional Advancement, Cognitive Interest, Social Relationships and External Expectations. The statistically significant subscales that accounted for significant multivariate differences among the five learning groups on The University of Tennessee study were Social Relationships, External Expectations, Escape/Stimulation and Professional Advancement. The only similarities between the two studies showed that the Professional Advancement and External Expectation subscales were statistically significant.

3. Rinella's study revealed that significant differences did exist among the five learning groups in their Interests. Factor analysis was not conducted on the Interest items by Rinella. The mean scores for each group on each Interest item were calculated. Significant differences did exist primarily between the Decorative Arts and Crafts students and the four other groups. The Decorative Arts and Crafts students showed more interest in art, working with wood, classical music and other cultural/aesthic interests. These same students showed significantly less interest in job preparation and personal discussion groups. In summary, the students were polarized with respect to their interests into two different groups: those interested in cultural/aesthic development and those interested in personal/professional development.

The same statistical methods and procedures that were used by Rinella to analyze the Interest items in his study were utilized in the University of Tennessee study. The mean scores for each group on each Interest item were calculated, so a comparison could be made. The study of adults students at The University of Tennessee revealed that significant differences did exist among the five learning groups in their interests. Significant differences did exist primarily between the Personal Development and Job-Related Subjects and skills group and the other three groups. The Personal Development students showed more interest in art, classical music, painting, drawing, sculpture, gourmet meals and other cultural and aesthic interests. The Job-Related Subjects and Skills students indicated more interest in world events, foreign policy, economics, investing in the stock market, personal development and other personal interests.

The only similarities between the two studies on the Interest dimension were that adult students indicated more interest in cultural/aesthic interests and less interest in personal/professional development interests.

4. The Job Satisfaction dimension was considered to be statistically insignificant in both studies.

5. Rinella's study indicated that a significant difference existed among the five groups of students with respect to the Activities Engaged in During the Past Year.

The data indicated that the Personal Development and Home and Family students were engaged in all listed activities less often than the other three groups of students. The Decorative Arts and Crafts students were engaged in art work significantly more often than all the other learning groups. The results also indicated that the Job-Related Subjects and Skills students were engaged in a greater variety of activities than did the other students. The students in the Job-Related Subjects and Skills group had a more diverse lifestyle than did their four other counterparts in other courses.

The University of Tennessee, Knoxville study revealed that a significant difference did exist among the five groups of students with respect to the Activities Engaged in During the Past Year. The data showed that the Decorative Arts and Crafts and Job-Related Subjects and Skills students were engaged in all listed activities less often that the three other groups of adult learners. The Personal Development students were engaged in going to movies, eating dinner at a restaurant, and doing some sewing and knitting significantly more often than all the other learning groups. The results also showed that the Hobbies and Recreation students were engaged in a greater variety of activities than did the other students. The Hobbies and Recreation students were engaged in significantly more outdoor recreational activities than all the other learning groups.

In summary, there were differences between the two studies in regard to the significant learning groups and the types of activities engaged in during the past year.

6. Analysis of Television Viewing Habits of participants, both studies indicated that no significant differences existed among the five learning groups.

7. The Newspaper Preference dimension of Rinella's study indicated that a significant difference existed among the five learning groups. The data showed that the Job-Related Subjects and Skills had significantly greater preference for the Washington Post.

The study at The University of Tennessee, Knoxville showed that significant differences existed among the five learning groups in regard to Newspaper Preference. The Job-Related Subject and Skills students indicated a greater preference for the Knoxville News-Sentinel. The Personal Development students showed a significantly greater preference for The Daily Beacon.

In summary, the only significant similarity between the two studies on this dimension, was that the Job-Related Subjects and Skills students considered the newspaper to be a significant variable.

8. Rinella's study showed that a significant difference existed among the five learning groups on the Organizational Membership dimension of the research instrument. The Job-Related Subjects and Skills students hold a significantly

greater membership in the Political/Social Action groups.

The University of Tennessee, Knoxville study revealed that a significant difference existed among the five learning groups. The data showed that the Decorative Arts and Crafts students had a significantly greater membership in Recreational/Sports clubs.

Organizational Membership was a significant dimension in both studies. However, both studies differed on the significant learning group and organizational membership item.

9. The Radio Station Preference dimension in both studies indicated that a significant difference did not exist among the five learning groups.

10. With regard to the Magazine Preference dimension of Rinella's study, the data showed that a significant difference did exist among the five learning groups. The Home and Family and Hobbies and Recreation students showed less preference for the magazines listed. Students in Personal Development and Job-Related Subjects and Skills courses preferred traditional women's magazines more than the other students. Job-Related Subjects and Skills students preferred modern women's magazines more than the Hobbies and Recreation students did. The Hobbies and Recreation students had a significantly lower preference for the black-oriented magazine, Ebony, than did the four other groups.

The University of Tennessee, Knoxville data revealed

that a significant difference existed among the five learning groups on the Magazine Preference dimension. The insignificant magazine preferences in the study were the Gossip/Tabloid, Business, Literary/Highbrow and Black magazines. Students in Personal Development, Home and Family, Job-Related Subjects and Skills, and Hobbies and Recreation courses preferred traditional women's and modern women's magazines more than the Decorative Arts and Crafts students.

In summary, the traditional women's and modern women's magazines were the most preferred of all magazines tested in both studies. The Personal Development and Job-Related Subjects and Skills students considered the previously mentioned magazines as significant in the studies. The least preferred magazine was the black-oriented magazine, Ebony, in both studies.

11. The following demographic results were observed in Rinella's study. The Arts and Crafts students were older than all other groups except for students in Hobbies and Recreation courses. Personal Development and Job-Related Subjects and Skills courses had more women students than the other groups. The Hobbies and Recreation and Decorative Arts students have higher incomes than the other learning groups. The significant demographic items were age, sex, highest education level attained and income.

Age, number of children, and the highest level of education attained were the most significant demographic

variables in The University of Tennessee, Knoxville study. The Job-Related Subjects and Skills were significantly older than the four other groups of students. The Job-Related Subjects and Skills students have significantly more children than the other groups of students. The Home and Family and Decorative Arts and Crafts students have attained higher levels of education than the other learning groups. Personal Development courses were taken by more women than any other learning group.

In summary, age, sex, and highest level of education were the significant demographic items in both studies.

VITA

William Trousdale Nichols, son of Rhea Trousdale and Helen McAlister Nichols, was born in Nashville, Tennessee in 1940. After attending elementary school in Nashville and Franklin, Tennessee, he later graduated from Battle Ground Academy, Franklin, Tennessee in 1958.

In 1958, he entered Martin Junior College in Pulaski, Tennessee. In 1963, he received a B.S. degree in business administration from The University of Tennessee, Knoxville.

He joined the Tennessee Air National Guard in 1963 and served as an Aero Medical Technician until 1969. In 1963, he was employed by the Middle Tennessee Council, Boy Scouts of America as a District Scout Executive in Bedford, Cheatham, Houston, Humphreys and Williamson counties.

In 1968 he joined the staff of the Division of Continuing Education, The University of Tennessee, Knoxville at the Nashville Extension Center. He served as the chief administrative officer for the Department of Conferences and Institutes at The University of Tennessee at Nashville until 1975. While on the staff of the Public Service Division, he received the M.P.A. degree in public administration in 1973 from The University of Tennessee, Knoxville.

In 1975 he began work toward the doctoral degree in educational administration and supervision, while employed

as Coordinator of Non-Credit Programs and Coordinator of the Institute for Public Service Network at The University of Tennessee, Knoxville. He also assisted in the development and implementation of the Continuing Education Unit activities for The University of Tennessee, Knoxville.

He is a member of Phi Delta Kappa, American Society of Public Administration, National University Extension Association, Association for Continuing and Higher Education, Tennessee Adult Education Association, and Alpha Tau Omega. He served as an Administrative Board Member of the Franklin United Methodist Church; Past President, Williamson County, University of Tennessee National Alumni Association; and, Colonel Aide de Camp on the staff of Governor Winfield Dunn.

He is married to the former Linda Gene Field of Dickson, Tennessee and they have a daughter, Shannon Rhea.