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NEEDS OF ADULT UNIVERSITY STUDENTS AS RELATED TO
ADULT LIFE STAGES

A Dissertation
Presented for the
Doctor of Education
Degree
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Linda Louise Marek

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ABSTRACT

This study examined the needs of students enrolled at The University of Tennessee (1981-82). The central concern was to determine whether significant differences existed between the expressed needs of students according to life stages. Life stages were defined two ways: (1) seven age categories, the biological measure, and (2) seven adult life stage task categories (Adult Life Stage Task Categories: ALSTC), the social/psychological measure. The adult life stage categories are groups of tasks or life activities which are associated with a particular age. The task/age categories used were those defined by McCoy (McCoy, Ryan, Lichtenberg, 1978:229-230). Results from Kruskal-Wallis tests revealed significant differences in between-group response rates, especially (1) between male and female respondents, (2) among male nontraditional students (Nontraditional Students: NTAS, 23+), and (3) with respect to age categories and ALSTC. Test results supported the supposition that needs do vary significantly over adult life-stages.

The research posed some question as to what constitutes the most accurate means for assessment of life stages. There was not a high degree of concurrence in the response rates of respondents with regard to ALSTC as opposed to age categories. The results, both in terms of frequency distributions and Kruskal-Wallis tests, did not support the relationship posited by the McCoy model (McCoy, 1978).

Taxonomies of expressed needs were compiled for NTAS and for the total sample. Students expressed great interest in issues regarding registration procedures as well as instructional patterns. Students, both TAS and NTAS, expressed a preference for competent yet informal and relaxed instructors. The subjects exhibited a high degree of pragmatism, requesting courses that were occupationally oriented. Adult students associated education with the traditional campus site and expressed little interest in off-campus sites. The area of least concern was that of Psychological Impediments.

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CHAPTER I

INTRODUCTION AND PROBLEM

Increase in adult college enrollment has served to change the composition of the prevailing student body. Women, minorities, older students (23+), and professionals are invading the ranks of the traditional 18 to 21 age cohort. Demographic data indicate unabated continuance of this trend. Bruce Hamilton reported that "adult enrollment has increased by close to ten percent each year since the late 1960's" (Hamilton & Valley, 1976:8). According to Clark Kerr, in 1978 adults comprised 40 percent of the total higher education enrollment with 5,000,000 adults enrolled in degree credit programs (in Bowen, 1980:v). "Another 10,000,000 adults are now attending programs, courses, and other learning activities in, or offered by, the nation's colleges and universities" (Bowen, 1980:v). The National Center for Education Statistics reported that 21,252,000 adults participated in adult education courses in 1981, representing 12.8 percent of the total adult population in the United States (Digest of Educational Statistics, 1983-84:157).

Between 1972 and 1977, the proportion of the United States population over the age of 35 enrolled in formal degree-earning programs increased from 1.7 percent to 2.1 percent. This increase in adult college/university attendance was accompanied by a commensurate shift away from elementary and secondary school programs (The Condition of Education, U.S. Department of Health, Education & Welfare, 1976:120).

Enrollment in public elementary and secondary schools in the United States peaked in the fall of 1971 with 46,081,000 students. Each subsequent year enrollment has declined, reaching 40,148,000 by the fall of 1981. This was a decrease of 5,933,000, or 12.9 percent (Digest of Educational Statistics, 1983-84:29). Bureau of the Census data (1981) indicated a drop in the percentage of the total population ages 5 to 17, from 25.8 percent in 1969-78 to 20.9 percent in 1979-80 (Digest of Educational Statistics, 1983-84:27).

A 1975 Bureau of the Census report also revealed the following statistics:

. . . the 1960s approximately 78 percent of all students were attending full-time; however, in 1974, the proportion declined to 72 percent as part-time enrollment increased 50 percent and full-time enrollment increased 10 percent since 1970. The increase in the number of part-time college students is due to a large increase in the number of people 25 years old or over attending college in the past few years. Thus, the fall, 1974 college population was older and more likely to be enrolled part-time than in the 1960s (U.S. Department of Commerce, Bureau of the Census, 1975).

According to the Digest of Educational Statistics the proportion of people 25 to 29 years old with four years or more of college had increased from 5.8 percent in 1940 to 22.0 percent in 1975. This increase in education serves to create an appetite for more learning, hence increasing the numbers of adults returning to college for the express purpose of self-enrichment (Digest of Educational Statistics, 1978:18,14). A 1977 Gallup Poll survey of the United States population over the age of 18 substantiates this trend for an

increased educational appetite. Adults were questioned in an attempt to ascertain why they might go back to school.

When asked to choose four major reasons why they might "go back to school," some 49 percent reported that they would pursue "personal improvement and enrichment," 4 percent said they would "take classes leading to a bachelor's degree," 11 percent claimed that they would take classes that would help them gain promotions in their existing job (Best, 1980:39).

In 1976 then Vice-President Mondale described the future of American Higher Education, stating that:

Between 1970 and 2000 the number of persons over 20 will have increased from 127 million to 190 million. With the declining birth rate and the extension of life expectancy there will be more adult Americans who want and need to live productive lives for longer periods of time than ever before. And for the first time in many years, we seem to have educational resources, teachers, laboratories, dormitories--that are not being fully used. According to a recent National Institute of Education report, "Community colleges have resources and are looking, for both financial and philosophical reasons, to serve new groups" (The Condition of Education, 1976:44).

The percentage of college students over the age of 25 has increased from 22 percent in 1970 to 34 percent in 1975, and 40 percent in 1980 (The Condition of Education, U.S. Department of Health, Education & Welfare, 1976:226). David J. Graulich has projected that between 1980 and 1990 there will be a 20 percent decline in the traditional 18 to 25, college-aged population (Graulich, 1977: 1,20).

A 1972 study completed by the Commission on Nontraditional Study reported that "32 million adult Americans were engaged in some sort of postsecondary learning, and that millions more were potential

new learners if appropriate services were available" (Hamilton & Valley, 1976:9). According to Frederick Brodzinski,

. . . in 1978 at least one-third of all students enrolled in higher education were over 25 years of age and at least 50 percent were age 22 or above and of the undergraduates 34 percent were 22 years of age or older (Brodzinski, 1980:4).

Continuance of the trend for greater student diversity will be enhanced by numerous social forces. The following environmental and social/cultural factors will serve to force massive changes in American higher education:

1. The rise of automation leading to reductions in work-time and increases in leisure or unemployment.
2. Rapidly changing technology requiring frequent retraining throughout an employee's work-life.
3. Increasing automation resulting in fewer jobs and extreme competition for the limited number of quality jobs.
4. Decreased need or benefit for extensive education at an early age coupled with an increased demand for actual work experience.
5. Changes in population demographics.
6. Gains in average worker affluence thereby affording increases in free time, especially during the midyears of life.
7. Severe financial hardships for older, retired individuals, forcing a return to work.

8. Growing social acceptance of flexible life scheduling wherein work, leisure and education are distributed evenly over the total life cycle.

According to the Bureau of Labor Statistics, in 1900 American males spent 23.7 percent of their overall waking/sleeping lifetime at work, whereas, in 1970, only 13.4 percent of the total male wake/sleep component was spent working (Best, 1978:97-98, 108-109). Over the last century the average work-week has declined from 60 hours to 39 hours, allowing for increases in education and leisure time. Automation has substantially contributed to reductions in the work-week. Best has projected that continuing increases in affluence and automation will "leave people little else to do but return to schools for the intrinsic values of education" (Best, 1980:23). Automation will be accompanied by increases in technological complexity requiring a limited number of highly trained personnel. Rapidly changing technology will require frequent occupational changes as well as increased training, hence necessitating the return to school for updating of skills. Social and technological changes will require mid-life retraining. The desire for upward social mobility will constitute additional impetus for return to school by middle-aged people. The future will evidence growing acceptance of major occupational shifts. The average worker will change jobs more frequently. James Byrne reports that in 1972, 8.7 percent of all United States workers changed major occupational categories (Byrne, 1975:53-59). Rapid changes in technology will serve to enhance this trend and continue to punctuate the reality of occupational change.

Increased automation will contribute to a substantial reduction in the number of available jobs, resulting in intense competition for the better jobs. In the mid 1960s a presidential commission assessing the impact of automation expressed the need for flexible life-scheduling, wherein periods of work, leisure, and education would be interspersed throughout a worker's entire lifetime (Technology and the American Economy, Vol. 1, 1966:64-65, 90-91). Such flexibility will allow for job sharing. Intense competition for limited numbers of jobs will serve to encourage personnel to return to school periodically for purposes of updating skills, sharing the work experience, and insuring greater upward mobility.

Growing mismatches between educational attainment and attainment of a job, as well as financial hardships, are forcing young adults to postpone education and to seek jobs. According to Brodzinski "in 1977, 21 percent of the students graduating from high school delayed college entry by one to three years and 25 percent by four or more years" (Brodzinski, 1980:4). Youth are less willing to spend prolonged periods in school to acquire degrees that do not necessarily guarantee a job. Often prolonged schooling without work experience is viewed by students and prospective employers to be of negative value.

Herman Kahn and Anthony Weiner project that gains in average worker affluence will allow for increases in free time throughout the entire life cycle (Kahn & Weiner, 1965:193-202, 213-217).

Albert Persoff (1945) and Peter Drucker (1960) have both advocated

use of worker sabbaticals as a means of facilitating work sharing and also of encouraging mid-life career changes (Persoff, 1945; Drucker, 1968:221-223).

The present inflexible linear life plan is draining away the productive potential and financial solvency of society. It telescopes work time into a short, intense mid-life period, forcing prolonged adolescence and inactive old age. Social, cultural, and economic factors require greater flexibility in scheduling of the major activities of education, work, and leisure. Flexible life scheduling allows for rotation of the more attractive positions among qualified persons; it also provides work experiences for the less affluent youth and elderly members of society, and it affords the more affluent middle members of society the opportunity to seek social mobility and achieve increased technical expertise, as well as occupational change.

In his studies of adult development, Riegel stated that for the most part major contributions of adults are limited to the middle years, while in other periods, people

. . . prepare themselves or rigidify their paradigmatic orientation. The shifts in roles and in particular, the experienced lack of success to continue in contributing in modes of earlier developmental periods might be considered as crises in adult life (in Datan & Ginsberg, 1975:118-119).

A flexible life schedule would assist in elimination of this crisis by allowing for distribution of work over the entire life span instead of compressing work into the middle years. Flexibility in scheduling

would also allow for greater work diversity which would subsequently encourage renewed levels of productivity and innovation.

Growing disillusionment with education among the youth as well as a decreasing birth rate contribute to a general trend toward decreasing college enrollments. The declining proportion of younger students is causing universities to solicit actively the adult enrollment. The resulting increased incidence of middle-aged students is serving to dispel the prevailing assumptions that formal education is for the youth. Though educators are actively soliciting adult enrollments they are frequently failing to address the needs of this new clientele. According to Fife, despite the surge in enrollment of adult students, "uses of developmental theories about human growth and needs are seldom in evidence in the college or university classroom" (in Weathersby & Tarule, 1980:1). Older students frequently feel out of synchronization with the still predominantly youth-oriented colleges and universities. Colleges need to provide environments that are supportive of and promote adult development. According to a 1980 American Association for Higher Education (AAHE) research report on adult development, many institutions

. . . have responded creatively (to the needs of adult students in higher education); they have expanded offerings in continuing education and created external degree programs, time-shortened degree programs, alternative colleges, weekend colleges, individualized degree programs, and revitalized adult education programs. . . . However, only a few have looked at the logic of those efforts with the intent of designing environments that support or promote development (Weathersby & Tarule, 1980:3-4).

Theodore Levitt, professor in business administration at Harvard Business School, discussed the need for effective marketing stances wherein the primary concern is meeting customer needs and wants. In discussing the American automobile industry, Levitt attributed recent failures to a lack of customer-oriented marketing approaches. Levitt stated that Detroit failed because automobile manufacturers

. . . never really researched the customer's wants. They only researched his preferences between the kinds of things which it had already decided to offer him. For Detroit is mainly product-oriented, not customer-oriented (Levitt, 1975:6).

Colleges and universities seem to be committing a similar mistake; they are instituting innovative, new programs that fail to recognize the true nature of the adult student. Colleges are failing to recognize that adults need programs that support and promote development, and that are tailored to the changing needs of the adult student. "The challenge of responding appropriately to adult students is to design programs that are theoretically rationalized and not merely add-ons to existing programs" (Weathersby & Tarule, 1980:3).

Considerable interest has attended the growing issue of adult development as it relates to education. The assumption that adulthood is a stable, monolithic state has been discredited by the concept of life-span development. The perspective of life-span development encompasses a pervasiveness of change wherein specific developmental sequences and ontogenetic links are recognized. In the past, adults were perceived as being

. . . like a butterfly . . . emerging fully formed and on cue, after a succession of developmental stages in childhood. Equipped with all the accouterments, such as wisdom and rationality, the adult supposedly remains quiescent for another half century or so. While children change, adults only age (Gould, 1975:78).

People's needs for education grow out of the larger context of their lives. Education enables the satisfaction of different developmental needs depending on a student's place in the life cycle (Weathersby & Tarule, 1980:11).

Hence, the needs of the clientele must be evaluated in light of life span development theories. Correlative studies of adult needs as they relate to life cycle will allow increased ability to predict life stage changes, and allow for implementation of programs sensitive and responsive to evolving needs. According to Weathersby and Tarule, "it is at least a testable hypothesis that there are predictable populations of adults who are 'ready' for specially designed educational programs that meet their needs" (1980:11). Educators must identify those developmental antecedents and processes that impinge upon and affect the educational planning of adult programs. The present orientation is too often geared toward a dwindling younger student body rather than the clientele of the future, the adult student. Educators need to "rethink the role of education in mediating life-structure transitions and in enabling people in middle and late adulthood to find resources for restructuring their lives" (Weathersby & Tarule, 1980:30).

Increasing numbers of adults are enrolling in colleges and universities. As the complexion of the university student body

changes, due to the influx of adult students, educators will need to respond to the needs of the new clientele. The needs of adults are diverse. Some of this diversity could be attributed to changes in adult developmental stages. This study attempts to understand relationships among adult life stages and to determine how this phenomenon influences higher/continuing education needs of the adult (over 23), non-traditional student.

1. STATEMENT OF PURPOSE

The purpose of this study is to ascertain whether "needs" as identified by the Survey of Student Needs (Mangano & Corrado, 1978) are related to adult life stages, and, whether such "needs" change according to specific stages.

This study is primarily designed to answer the following question:

1. Do the stated "needs" of college students at The University of Tennessee, Knoxville, as identified in an assessment study, differ significantly (Kruskal-Wallis one-way analysis of variance) according to age, sex, and adult life stages, as identified by Vivian Rogers McCoy, Director, Adult Life Resource Center, Division of Continuing Education, University of Kansas?

Students participating in the study included traditional (ages 18-22) and nontraditional students (23+). The survey incorporated questions

questions from an instrument, Survey of Student Needs, developed by Mangano & Corrado (1978).

The results of the study are presented in four sections consistent with the stated objectives and research design of the study:

1. To study frequency tabulations and measures of central tendency for significant relationships.
2. To compare categories of students and determine whether significant differences exist between the stated categories. The following categories were considered: age, sex, life stages, adult life stage task categories (ALSTC), traditional (TAS) and non-traditional students (NTAS).
3. To identify perceived needs of NTAS and to taxonomize the identified needs as they relate to ALSTC (McCoy's Model, 1978).
4. To categorize adult students according to life stages, discussing relationships in terms of age gradients (seven age groups, see Section II, Question 2, Survey of Student Needs, Appendix A) vs. task categories (ALSTC, see Section II, Question 18, Survey of Student Needs, Appendix A).

This study will also attempt to answer the following questions:

1. What are the needs of adult college students (students 23+, male and female)?
2. Are there differences between the needs of adult male and adult female students (not considering adult life stages)?
3. How do the needs of students vary according to indicated life stages?
4. How do the needs of men differ from those of women as they relate to adult life stages?
5. What are the differences between the stated needs of traditional-aged college students (TAS, ages 18-22) and nontraditional-aged college students (NTAS, ages 23+) at The University of Tennessee.

2. DEFINITIONS

Some terms in this study need to be clearly understood as they pertain to this research. Important terms are described in this section.

Adult. The term adult is an age-relevant measure only, and in this study refers to people from 23 years of age and older.

Adult Life Stage Task Category (ALSTC). An adult life stage task category is a task-group. A task-group is a set of life activities which are associated with a particular life stage. The tasks, or ALSTC, are those defined by McCoy (1977:229-230).

Development. Development involves the study of behavioral change over time, in this case across the life span. Knox defined development as the "orderly and sequential changes in characteristics and attitudes that adults experience over time" (Knox, 1977:9). Developmental changes will be viewed as sequential, in terms of antecedent-consequent patterning; hence, early "characteristics help shape subsequent characteristics" (Knox, 1977:10). Development occurs over time but is not delimited by, or considered solely, a function of time in terms of causal relationships. Development implies change but the concept of change will not be constrained by value judgements, hence, development could include changes which might be viewed as deterioration and hence have negative connotations.

Baltes, Reese, and Nesselroade defined development as:

Developmental psychology deals with the description, explanation, and modification (optimization) of intra-individual change in behavior across the life span, and with interindividual differences (and similarities) in intra-individual change (Baltes, Reese, & Nesselroade, 1977:4).

Thus, development involves both external and internal change. External developmental changes are more or less synonymous with role and involve aspects such as acquisition of learning skills, parenting, retirement. Internal development involves intrapsychic adaptation wherein psychological, inner changes occur (involving perception, self-concept, motivation, superego, primacy).

Educational attainment. Educational attainments encompass formal as well as informal components. Hence, completion of credit or non-credit courses constitutes educational attainment. Educational attainment involves the formal, collegial acquisition of knowledge and includes all credit or non-credit courses taken at The University of Tennessee, Knoxville or any other college or university.

Item-facet membership category. An item-facet membership category is a group of items from the Survey of Student Needs that fall within a specific category pertaining to facets of university life. Items from the questionnaire subsumed under a specific facet pertain to one specific area of student needs. All questions from the Survey of Student Needs fall under one of six item-facet categories. The six categories are: (1) Academic Survival Skills, (2) Personal Development, (3) Psychological Impediments, (4) Institutional Support Services, (5) Institutional Curricular Services, and (6) Instructional Patterns. Five of the six facets were from research conducted by Mangano and Corrado (1978). The Mangano and Corrado facets are as follows:

- (1) Academic Survival Skills: basic tools of academic competence;
- (2) Personal Development: personal-social skills, generalizable to a variety of situations, not typically regarded as curriculum determinants;
- (3) Instructional Patterns: instructional policies, practices, and attitudes that affect a student's academic performance;
- (4) Institutional Curricular Services: administrative procedures that establish the institutional context;
- (5) Instructional Support Services: institutional services that remediate, maintain, or enhance a student's educational experience (Mangano & Corrado, 1978:13).

Life-span development vs. adult development. Life-span developmental psychology views human development as a series of successive periods replete with distinct characteristics and specific learning tasks. Life-span studies describe human development from birth to death, whereas adult development is concerned only with adulthood. There are two ways of considering life-span development: from an age-relevant, chronological view wherein the primary purpose is documentation of age-change patterns (study of age-related behavior); or, from the view of the behavior-change process wherein sequence-relevant patterns are identified and no conscious attempt is made to assert a correlation with chronological age. According to Paul B. Baltes and L. R. Goulet "human life-span developmental psychology is concerned with the description and explication of ontogenetic (age-related) behavioral change from birth to death" (Baltes & Goulet, 1970:3).

Life stage. The term life stage refers to an age-linked period wherein particular adaptive or developmental tasks are mastered

Needs. The term needs refers to requisite learner needs, as expressed in a questionnaire, Survey of Student Needs (Mangano et al., 1978). The questionnaire will survey adult student needs by scrutinizing six areas of the collegial experience: Academic Survival Skills, Personal Development, Psychological Impediments, Instructional Patterns, Curricular Services, and Support Services (see Appendix A for a copy of the questionnaire).

Nontraditional programs. The term nontraditional programs refers to any program that does not lead specifically to the acquisition of a degree. Hence, the term is extremely delimiting for purposes of this study. It refers only to programmatic issues, lacking concern for unconventionality of location, scheduling, students, faculty, methods of instruction, and particular curricular content.

Nontraditional aged students. The term nontraditional aged students (NTAS) is a sub-category of adult student. Cross and Zusman defined the nontraditional student as one who combined "adult responsibilities of job, home, and family with educational activities" (Cross & Zusman, 1977:2). In this study, NTAS will describe adult students (23+) who assume adult responsibilities as defined by Cross.

Psychological impediments. Psychological impediments are internal, intrapsychic characteristics and/or feelings that are essentially considered to be counter-productive, if not detrimental, to the acquisition of external development (in this case the external development that is of greatest note is that which is associated with acquisition of educational attainments). This involves such aspects as anxiety, self-abasement, feelings of conflict, resentment, dissatisfaction, feelings of failure, alienation, insecurity, and problems arising from primacy and superego.

Watson (in Peters, 1965:696-699) delineates two forces that act for or against change, personal/individual forces, and social

system forces. The personal forces are: habit, the propensity to act in familiar ways; primacy, the tendency to respond to new experiences in ways that were successful before; selective perception and retention; self-distrust; superego, involving enforcement of standards learned early in life; and insecurity and regression wherein the individual seeks security in the past.

Psychological impediments are those negative, anti-change aspects of the individual personality component described by Watson. The questions concerned with this aspect of the study are in Appendix A.

Student. The term student refers to persons enrolled at The University of Tennessee, Knoxville and encompasses part-time as well as full-time enrollees, degree or non-degree students, persons who are enrolled in credit or non-credit college courses, and people involved in traditional or non-traditional programs.

Task-group. A task-group is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy (McCoy, Ryan, Lichtenberg, 1977:229-230).

3. LIMITATIONS, ASSUMPTIONS, AND DELIMITATION

Limitations

This study is limited to the nature of the population as previously described, and to the particular university setting discussed in Chapter I (pages 11, 13, 19) and Chapter III (p. 78).

Randomness was not assumed, given the use of intact classes. Use of intact classes provided for larger samples and decreased subject reactivity. Measurement of concepts was limited to the instrument used and to the limitations of survey methodology. Hamilton (1976) warns of the possibility of the instrument error in survey research. "Questions which seem perfectly clear to the researcher sometimes prove to be disastrously vague and ambiguous to many respondents" (Hamilton, 1976:22). Such ambiguity has been reduced through the use of questions borrowed from a successful instrument developed and used by Joseph A. Mangano. This study is limited to the nature of the described population and is not necessarily generalizable to other environmental conditions.

Assumptions

The following assumptions are postulated:

1. Subjects responded honestly and frankly.
2. A uniform college experience existed for all subjects, hence insuring a representative sample.

Delimitation

The study was delimited to respondents at The University of Tennessee, Knoxville, who were attending the classes chosen for the sample during the Fall Quarter, 1981 and Winter Quarter, 1982.

4. SIGNIFICANCE OF THE STUDY

Increasing adult college enrollments are changing the complexion of the prevailing college student body. As the enrollments of the traditional 18 to 22, college-aged population decrease, many universities will seek to encourage adult enrollment. Results of this study should help higher education leaders plan more pertinent and effective programs for a new segment of their clientele.

According to Bowen:

. . . arranging to accommodate increasing numbers of adults is a highly attractive option to be considered by our nation's postsecondary institutions as the number of students in the traditional age group declines. While not discounting the importance of other possible options open to our institutions, such as increasing the quality of their offerings; expanding research and public service activities; or even large scale retrenchment, the important message is that serving new clienteles and bringing "nontraditional study into the mainstream" is the most desirable and significant option that is available to higher education institutions in terms of national economic gain, cultural advancement, and institutional survival (Bowen, 1980:v).

Increases in adult enrollment may necessitate accommodations on the part of universities to meet the needs of these adult students.

Numerous researchers have postulated that the needs of the adult student vary according to life stages (Weathersby & Tarule, 1980; McCoy, 1978; Lowenthal, 1975; Chickering, 1975; Havighurst, 1952; Gould, 1975; Cross & Zusman, 1977). If needs do vary according to life stages, and universities are pursuing a policy of actively recruiting adult students, then attention should be given to determining needs of adult clientele. The needs of the adult student should be evaluated

in light of life span developmental theory. Educators should identify those developmental antecedents and processes that impinge upon and affect the educational planning of adult student programs. "The challenge of responding appropriately to adult students is to design programs that are theoretically rationalized and not merely add-ons to existing programs" (Weathersby & Tarule, 1980:3).

This study investigated the relationship of adult needs to adult life stages. Many theories have been advanced concerning the relationship of life stage development to educational needs, but few studies have been conducted to determine the exact nature of the relationships with various samples. Do the perceived needs of students actually change from stage-to-stage? Are differences between the needs of adult nontraditional students and traditional students significant? How do factors such as sex and age affect student needs? These types of questions must be answered if colleges are to meet the needs effectively, and hence adequately serve the adult student. This study addresses the question of need as it relates to adult life stages, as well as certain ancillary concerns such as the differences between male and female needs, providing a taxonomy of student needs, and comparisons of the needs of traditional students and nontraditional students.

5. ORGANIZATION OF THE STUDY

The format of the study is as follows: Chapter I includes the introduction and problem; statement of purpose; definitions;

limitations, delimitation, and assumptions; significance of the study; and organization of the study. Chapter II presents a review of related literature encompassing two major sections--student needs and adult development/life-span developmental psychology. The student needs section is divided into two categories, needs assessments and programs developed to meet specific student needs. The categories are divided into subsequent sub-categories. The sub-categories for the needs assessments category are: women and minorities, academic learning needs, student services, re-entry students, and research identifying and describing adult, nontraditional students. The programs category is organized according to J. R. Valley's model and contains six sub-categories: administrative facilitation model, modes of learning model, examination model, validation model, and credits model. Chapter III discusses the methodology used, and includes the following sections: method, instrumentation, subjects, data collection, statistical tests, and analysis of data. Chapter IV provides analysis and presentation of the data in the following format: (1) descriptive characteristics of the sample (frequency data); (2) results of the Kruskal-Wallis tests; (3) taxonomy of needs for nontraditional students and the total student population; and (4) discussion of factors used to delineate adult life stages. Chapter V presents the summary, findings, conclusions, and recommendations for further research.

CHAPTER II

RELATED LITERATURE

Review of literature for this study is presented in two major sections. The first section includes discussion of literature related to adult development and life span developmental psychology, including an historical update as well as a discussion of contemporary theories of adult development. Second, literature concerning the needs of adult learners and programs designed to meet such needs is reviewed. Research and literature concerning the needs of adult learners, and programs designed to meet such needs, generally fall into two major categories: (1) actual needs assessments wherein demographic and response data are analyzed for population trends; and (2) programmatic concerns where actual programming is the salient issue.

Literature for which the primary interest is documentation, assessment, and categorization of adult student needs is considered category one, Needs Assessments. This category is subsequently divided according to the following areas: (1) women and minorities; (2) academic needs, such as curriculum, learner needs, academic success; (3) student services, personnel services, counseling career planning and advisement, access issues, and other extra-academic issues; (4) reentry; (5) descriptive factors such as characteristics of adult students, psychological attributes, and anxiety levels.

Literature that is primarily concerned with programming and meeting specific student needs is in category two, Programmatic Concerns. The category of Programmatic Concerns will be further delineated according to six models developed by J. R. Valley (1972). Valley (1972), in his article "External Degree Programs," suggests six models for categorizing programmatic developments.

The six models are:

1. Administrative-facilitation model wherein administrative arrangements facilitate access to the college or university.
2. Modes-of-learning model wherein the primary remedy is curriculum modification directed toward the meeting of learning interests.
3. Examination model in which credit and/or degrees are awarded pending successful completion of a series of examinations.
4. Validation model which proposes recognition of knowledge or competencies gleaned through on-the-job and real-life experiences. Such noncollegiate knowledge would be "validated" and course credit or degrees awarded.
5. Credits model which would recognize noncollegiate learning and award credit or degrees pending investigation of the source of such knowledge. An independent agency, such as the State Office of Education, would examine courses offered by industry, unions, nonprofit agencies, and governments. Subsequent granting of credit and certification

would be contingent upon approval and recommendation by the investigatory agency.

6. Credits systems model, which proposes an eclectic approach to programming, wherein all of the above listed models are incorporated.

Figure 1 offers a graphic portrayal of the sections, categories, and subcategories of the literature review.

1. LIFE-SPAN DEVELOPMENTAL PSYCHOLOGY: ADULT DEVELOPMENT

Life-span developmental psychology views human development as a series of successive periods replete with distinct characteristics and specific learning tasks. Human life-span developmental psychology is a characteristic of the twentieth century. Although historical antecedents of life-span studies are found in the nineteenth century, they are essentially isolated examples. It was not until after World War II that post-adolescent psychology became a subject for extensive study and research. Entire life-study evolved, in part, from longitudinal studies, which were extended into adulthood (e.g., Stanford Studies of Gifted Children; longitudinal studies at the Institute of Human Development; and studies at the Fels Research Institute). According to Don C. Charles "life-span psychology as a clearly defined interest area is still in an early and formative stage of development" (in Baltes & Goulet, 1970:25).

One of the earliest researchers in the area of human life-span psychology was the French mathematician, astronomer, sociologist,

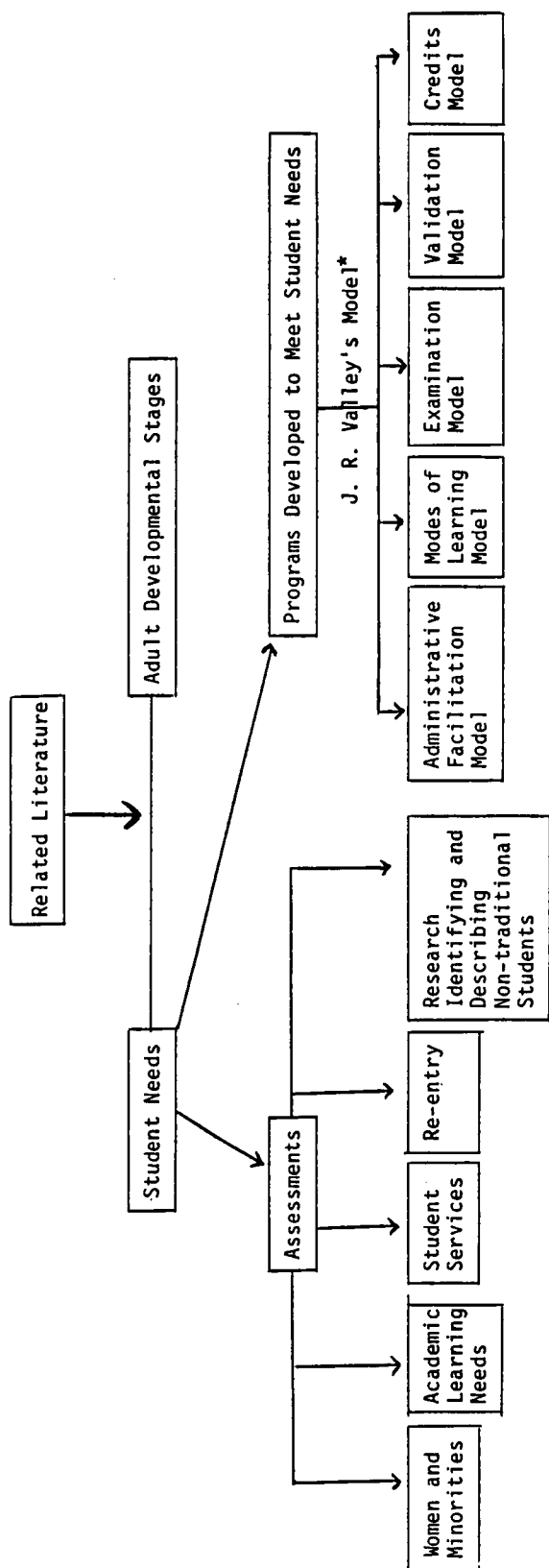


Figure 1. Outline of Related Literature for Study of the Needs of Adult University Students as Related to Adult Life Stages, The University of Tennessee, 1984

*From John R. Valley, "Matching New Needs with New Resources. Issues in Non-traditional Study, Volume 1" (Princeton, N.J.: College Entrance Examination Board, 1976).

psychologist, Quetelet (1796-1874). According to Karl J. Groffman, Quetelet can be called the "founder of life-span psychology in the modern sense" (Baltes & Goulet, 1970:67). The results of Quetelet's studies of age and creativity were presented in his 1835 publication Sur L Homme et le Developpement de ses Facultes. Quetelet's principal preoccupation was with measurement and quantitative research, wherein a particular interest was paid to statistical analysis. In his studies of age and creativity, Quetelet regarded age as an independent variable to which he assigned dependent variables such as constitution, body strength, intelligence, emotions, and interests. Quetelet's use of cross-sectional methodology anticipated similar modern studies concerned with relationships between age and physical functions. Karl J. Groffman enumerated nine salient points with regard to Quetelet's studies of the life-span:

- (1) The concept of the average individual.
- (2) The mortality rate with its minimum in the second decade of life.
- (3) The age of about 25 as the age of strong emotions and a period of greater tendency to delinquency.
- (4) The growth of muscular strength at about the same period of life.
- (5) Mental activities of man (indicated by socially successful achievements, e.g., dramas) and mental illness tend to develop at the age of about 25.
- (6) Quetelet (1838, p. 424 ff.) concludes the discussion of the developmental curve of intellectual abilities with the following preview: "Our intellectual abilities have their origin, grow and decline, each of them reaching its maximum at a certain age. It would be important to know which of them matures first and which one last" Furthermore, he is aware of the complex structure of the "intellectual abilities" and recognizes the fact that only after a great number of empirical studies would a precise analysis be possible.

- (7) Maximal frequencies of mental illness and the least chances of their recovery and also the climax of production of dramas occur simultaneously within the period between 30 years and 50 years of age.
- (8) The existence of age specific criminal acts and a maximum of delinquency at about the age of 25.
- (9) The number of suicides relative to the population of an age group increases continually from the age of 20 to that of 70. The various forms of suicide are clearly age specific (in Baltes & Goulet, 1970:60-61).

Life: A Psychological Survey (Pressey, Janney, & Kahlen), was one of the first genuine life-span textbooks. Prior to the 1939 publication of this book, most texts were primarily concerned with infancy, childhood, and adolescence, paying only token homage to adult development. The Pressey et al. book was written for a course (on psychological development through the life span) at Ohio State University. A 1957 revision prompted these comments by Pressey,

. . . the book was a radical departure from those then current. Most seemed to assume that development stopped at eighteen; one venturesome author gave fifteen pages to all the years from puberty till death, but forty-five pages to development from conception till birth . . . (in Baltes & Goulet, 1970:25).

Other life span developmental textbooks were published by J. E. Anderson (1949), Zubeck and Solberg (1954), and Hurlock (1968).

The period surrounding World War I witnessed growing interest in adult development. Such interest was precipitated, in part, by mental testing programs conducted by the army, the Army Alpha. Robert Yerkes and five other psychologists were commissioned to devise a group intelligence test for the military (Army Alpha; Yerkes, 1921). The Army Alpha testing engendered interest in

questions concerning intelligence and age. Psychologists attempted to ascertain the age wherein mental maturity was achieved. Yerkes' group ascribed 13 as the age of mental maturity, whereas Thorndike's (1923) studies indicated that 18 was the age of peak intellectual performance. E. L. Thorndike's Adult Learning (1928) constituted a summary of his studies on the influence of age on ability. In 1935 Thorndike published the book Adult Interests, wherein he reported the results of a series of studies (1931 to 1934) concerning changes in intensity of interest with age. Another major concern of Thorndike was that of modifying and improving personal characteristics at various ages.

C. G. Jung (1875-1961) viewed life-span development as a complex process that continued into old age. The major goal of development was self-realization. Jung recognized two life stages or life cycles: (1) birth to 40, wherein ego was formed; and (2) 40 to death, characterized by the formation of an inner world, and by the completion of the developmental process.

Adult development (the systematic, empirical reporting of the ontogenetic, chronological, age-related change, and evolutionary, biocultural progression, indigenous to adulthood and documented in terms of developmental stages) is rapidly emerging as a significant field of study. The time since 1945 has witnessed increasing interest in defining and researching adult life-stages. Earlier views of adulthood supported the concept of age as being regressive and decremental. Freud, for example, viewed adulthood as the

continuation of patterns and processes determined in early childhood; thus, direction and quality were predetermined and unchangeable.

These views have been countered by empirical investigations conducted by researchers in the areas of life-span development and adult development. Bühler and Massarik (1968) described progressive, later-life changes wherein creative expansion and self-fulfillment were manifest, hence, belying dogmatic assertions of regression and deterioration. Early pioneers in adult development, such as Charlotte Bühler (1933, 1966), Elsie Frenkel-Brunswik (1950), Kuhlen (1959, 1964), Lehman (1953), E. Erikson (1963), and R. Havighurst (1952), studied the sequential, developmental aspects of adulthood, emphasizing growth, adaptation, and transformative change. As a result of their work, adulthood was no longer viewed as a static, monolithic state, but rather as a succession of periods requiring adaptation and change.

Havighurst stated that the developmental aspects of adulthood were predicated upon the social roles or "areas of behavior" assumed by adults, such as worker, mate, parent, homemaker, and citizen. Such social expectations which impinge upon an adult in modern society may be described in a limited number of areas of behavior, as follows:

Parent	User of Leisure
Spouse	Church Member
Child of Aging Parent	Club or Association Member
Home-maker (male or female)	
Worker	
Friend . . . (Havighurst, 1960:6).	

According to Havighurst (1960:1), adulthood "is a developmental period in almost as complete a sense as childhood and adolescence are developmental periods." Developmental tasks produced a degree of readiness, a teachable moment which leads to growth, adjustment, and success. Havighurst continues: "people live successfully when they meet social expectations with a sense of freedom and fulfillment" (1960:6). Success depends upon achievement of developmental tasks which are viewed as the

. . . basic tasks of living which must be achieved if we are to live successfully and to go on with the good promise of success to the later stages of life. The developmental tasks are set for us by three forces: (1) the expectations of values of our society; (2) the maturing and then the aging of our bodies; and, (3) our own personal values or aspirations (Havighurst, 1960:7).

Developmental tasks are essentially delimited by "social expectation" and "individual aspiration."

Bühler defined adulthood as a succession of five stages: growth, exploration, establishment, maintenance, and decline. Her theories were based upon biological and psychological data from performance and production records, as well as autobiographical or biographical records of individuals with varied national, occupational, and social backgrounds. Progression through the five life stages was described in terms of three styles: the biophysical performance of manual workers and athletes, progressions that led to productions and achievements (e.g., businessmen, scientists, artists), and progressions that revealed "contemplative integrations" (e.g., philosophers

and writers). Flexible life stages were determined on an intra-individual basis and delimited by an individual's socio-economic expectations. Delineation of stages involved consideration of "external events (what one did, his/her job, his/her friends), internal events (what one thinks and feels about one's life) and life accomplishments and products" (McCoy, 1978:7). Bühler's concepts of adult life stages were applied in varying degrees by Kuhlen (1959, 1964) and by Lehman (1953).

As a result of extensive biographical studies of famous personages such as Goethe and Queen Victoria, Elsie Frenkel-Brunswik described three stages of adult development: (1) construction, birth to 40; (2) culmination, 40 to 50; and (3) reduction, 60 and over. Internal as well as external events were scrutinized.

Bernice Neugarten et al. described adulthood as proceeding on a continuum in which the first half of life exhibits a characteristically future orientation as opposed to the last half (beginning in the early or mid-forties) which is introspective in nature. In the latter half of life people tend to think in terms of time left to live. Neugarten's studies revealed insights into the ways social and cultural influences affect adult development. The concept of age norms is central to Neugarten's theories. According to Neugarten "age is one of the bases for the ascription of status and one of the underlying dimensions by which social interaction is regulated" (Neugarten, Moore, & Lowe, 1974:22). There is a social consensus concerning proper times to do certain things

(marrying, going to college, parenthood, selection of careers).

According to Chickering, Neugarten

. . . more than any other theorist, elaborates the role of age and timing in adult development. The shift from "time since birth" to "time left to live" sets boundaries for other major changes: from sense of self-determination to sense of inevitability of the life-cycle, from mastery of the outer world, through re-examination, to withdrawal and pre-occupation with inner self and sponsoring others; from achievement to self satisfaction (Chickering, 1975:191).

Erikson described eight successive life stages spanning from infancy to old age. The stages were:

1. Infancy (trust vs. mistrust: hope).
2. Early Childhood (autonomy vs. shame, doubt, will power).
3. Play Age (initiative vs. guilt: purpose).
4. Latency Stage: school age (industry vs. inferiority/competence).
5. Adolescence Stage (identity vs. role diffusion/confusion/fidelity).
6. Young Adulthood Stage (intimacy vs. isolation/love).
7. Adulthood Stage (generativity vs. stagnation/care).
8. Old Age and Maturity Stage (ego integrity vs. despair/disgust/wisdom) (Erikson, 1978; 25; also Evans, 1969:1-53).

Each stage was inclusive of and, in part, ascribed by developmental tasks that must be faced and resolved. The completion of each cycle required all the individual's "emergent strengths" to accomplish and solve the prevailing critical tasks or issues. The important goal of each period was ascendancy, wherein the person adapted and

changed. Erikson recognized the existence of inhibiting qualities and the regressive effects of fear and anxiety. He embraced a dualism that regarded adult development as the interaction of internal and external forces.

Developmental crisis is not viewed as catastrophic. Rather, it is a positive force that leads to change and motivates action and adaptation. Development proceeds by critical steps. Ascendancy within each stage requires resolution of the critical tasks, and eventual achievement of a dynamic equilibrium wherein the external/cultural-social need for change is reconciled with internal, individual constraints and needs. Fulfillment of the life cycle requires that the individual remain responsible and continuously contribute solutions "to the ongoing cycle of generations" (Erikson, 1978:29). The generational cycle is "vital to the maintenance of evolving social structure which must facilitate the emergence of the life stages or else suffer social and political pathology" (Erikson, 1978:29).

Purposefulness and competence are essential personal characteristics contributing to successful completion of life stages. Purposefulness is defined as the courage to imagine and subsequently pursue envisioned personal goals, uninhibited by "infantile fantasies" and their impending guilt and fear of punishment (Erikson, 1978:30). Competence brings into play the forces of "dexterity" and intelligence to solve tasks, free from "infantile inferiority" and inadequacy. The adult, then, acquires a sense of

autonomy wherein "will," adequacy, and competence prevail.

Will is the unbroken determination to exercise free choice as well as self-control, despite early experiences of shame and self-doubt caused by uncontrolled willfulness of rage over being controlled (Erikson, 1978:30).

After analyzing the lives of 40 men ages 18 to 47 years, Levinson identified six eras or stages in the male life-cycle. The six life stages are: (1) departure from family; (2) entrance into the adult world; (3) the thirties transition; (4) settling down; (5) mid-life transition; and (6) restabilization or entry into middle adulthood (Levinson, 1978). Levinson viewed adult development as the evolution of the individual life structure which consisted of alternate periods of building and questioning. Life structure, the basic patterns or designs of a person's life at any particular time, was created by the individual's choices, such as choice of occupation, family, education, etc. The essential task of adulthood was the construction and modification of life structures. Life structure involved both internal and external aspects, including:

. . . the external overall pattern of roles, memberships, interests, condition and style of living, long-term goals and the like--the particular ways he is plugged into society. In its internal aspects, life structure includes the personal meanings these have for the individual, as well as the inner identities, core values, fantasies, psychodynamic qualities that shape and infuse one's engagement in the world and are to some degree fulfilled and changed by it (Levinson, 1974:7-8).

According to Levinson, adult development was also concerned with the resolution of "intrapsychic polarities such as destruction versus

creation, masculine versus feminine, and attachment versus separateness" (Weathersby & Tarule, 1980:8). Development involved resolution of problems, both internal and external, with the goal being maintenance of an equilibrium between life structure and experience of self. Change involved restructuring of the life structure.

George Vaillant (1977) conducted a 34 year longitudinal study of 95 men from the classes of 1942, 1943, and 1944 from an unnamed, elite, "highly competitive college." This study described the adaptive mechanisms used to confront challenges. Vaillant amplified Erikson's eight-stage model to include two additional task areas, "career consolidation" (between the intimacy of young adulthood and the generativity of maturity), and "keeping the meaning" or "rigidity" (after the generativity of maturity and before integrity of old age). Vaillant discovered that "some men reacted ingeniously to life's challenges and succeeded, while others remained locked in patterns of defeat" (Vaillant, 1977:1). He also discovered that people cannot be expected to remember events of previous stages; instead, they reconstruct events in light of the present stage.

Feibleman (1975) described 11 stages of human life: gestation, infancy, childhood, primary school years, adolescence, youth (20-25), early manhood (26-35), maturity (36-45), later middle age (46-65), old age (66-75), and senescence (76+). According to Feibleman, the development of the individual recapitulated the history of the species. Life stages were the result of cultural and biological developments. Development was described by Feibleman

as a series of abrupt changes wherein no one stage provided adequate preparation for the ensuing stage. Each stage was autonomous, and life was viewed as a "series of escarpments, of abrupt conditions prevailing at various age-grades" (Feibleman, 1975:13). Transitions from one stage to another are abrupt, with each age-gradient typified by a personality limit. Emotions do not cross age-gradients. According to Feibleman, maturation involves "development of new faculties and abilities . . . it also means the decline of others," hence, "growing to maturity is a process of forgetting as well as learning, of losing as well as gaining" (Feibleman, 1975:17). The activities of man which typify each stage are explained in terms of basic motivation. In the context of western, European, American culture, Feibleman stated that the chief aim of mankind is self-aggrandizement. Man seeks to control his environment to ensure survival. The aim is to possess and control the environment. The individual seeks "to incorporate the universe within himself, that is his principal aim" (Feibleman, 1975:4). Complete domination of the environment results in reduction of needs. Cessation of the drive to reduce needs does not necessarily occur pending fulfillment of needs. Drive frequently continues on its own; man will continue to seek to alter the environment and he, himself, is altered in turn by the environment. The artifacts with which man changes his environment are socially transmitted and constitute appropriate patterns for action. Artifacts are valued for their instrumentality and are rarely valued as goal objects.

Thus, the artifact primarily provides the means for reducing needs. Needs are not always consistent and vary according to circumstances, giving rise to conflicting drives.

The theories of Baltes (1977, 1978) enunciated a pluralistic holistic, systemic view of life span development, wherein a multitude of causes, processes, and variables is believed to impinge upon individuals causing development and change. Such conceptual and empirical pluralism encompasses a wide range of theories and strategies. Development is concerned primarily with behavioral change across an individual's life-span. Intraindividual and inter-individual factors cause behavioral change. Development involves changes "within and among biocultural ecologies and with the relationships of these changes to changes within and among individuals" (Baltes, 1977:1). The major focus is upon an observable phenomenon that is pervasive and continuous. Development does not cease with adulthood, but is continuous throughout the individual's lifetime. Baltes stated that development is the result of a multitude of causes, processes and variables impinging upon the individual causing change. Due to this multiplicity of cause and the commensurate multidirectionality of the impending change (mediated by individual idiosyncrasies as well as cultural/social proclivities) "theories can no longer be casually shifted from one population to another or from one time period to the next" (Baltes, 1978:6). Baltes disputed the social use of age-relevant measures for documentation of life-span development. Age, according to Baltes, is only one of

many possible correlates for describing adult development and change. "Life experiences and historical events become potentially compelling variables as well" (Baltes, 1978:8). Baltes describes development as behavioral change caused by or resulting from maturation, learning, or the interaction of maturation and learning; and, it is affected by heredity and environment (Baltes, 1978:8).

$$B_a = f(H, E_{pa}, E_{pr})$$

B_a = behavior change with age

E_{pa} = past environment

H = hereditary
(Baltes, 1978:8)

E_{pr} = present environment

Baltes and Schaie (1980) summarized the state of research into development of intellectual capacity in adulthood. Schaie's longitudinal studies revealed four dimensions of intelligence; crystallized intelligence, cognitive flexibility, visual-motor flexibility, and visualization. Crystallized intelligence

. . . encompasses the sorts of skills one acquires through education and acculturation, such as verbal comprehension, numerical skills, and deductive reasoning . . . it reflects the extent to which one has accumulated the collective intelligence of one's own culture . . . it is the dimension tapped by most traditional IQ tests (Baltes & Labouvie, 1974:84).

Cognitive flexibility consisted of the ability to convert from one way of thinking to another within the context of familiar intellectual operations. Visual-motor flexibility involved coordination between visual and motor abilities, while visualization was concerned with the organization and processing of visual materials. Schaie's and

Baltes' studies as well as those of others revealed decline only in visual-motor flexibility. There was no strong age-related change in cognitive flexibility, crystallized intelligence, or visualization. In fact, systematic increases in scores were noted for various age groups. Further research in the area of intelligence and maturation has been conducted by Cattell and Horn, Klaus and Ruth Reigel, G. V. Labouvie, J. R. Nesselroad, Ogden Lindsey, and others.

Gould (1975) described seven successive, age-relevant developmental stages replete with indigenous tasks. The stages are ascribed by the following ages: 16 to 18 years, 18 to 22, 22 to 28, 29 to 34, 35 to 43, and 50+. Each stage involves special conflicts, joys, fears, and beliefs. Change implies acquisition of new beliefs about self and about the environment. Acceptance of such new beliefs is predicated upon thorough and thoughtful confrontation with and scrutiny of the ascendant belief. "Beliefs must be thought about before they can be modified by experience" (Gould, 1975:78). Scrutiny and eventual adoption involve lifting of beliefs to higher levels of consciousness, as well as reconciliation of past and present beliefs. Beliefs are "valid and valuable parts of the self that have to be reconciled before a new value can be created that is reflective of the adult experience" (Gould, 1975:78). The direction of change is generally toward tolerance of self. Development involves acquisition of the ability to understand and appreciate the complexity of the environment. A person's role can serve to be a positive or negative force. As a positive force, role can allow for fluid,

adaptive change wherein growth and understanding of self and of the environment are achieved. However, role can also serve to stifle the individual by providing a "simplified definition of the self that does not do justice to the whole complex human being" (Gould, 1975:74).

In her popular book, Passages: Predictable Crises of Adult Life, Gail Sheehy researched the lives of 115 middle-class Americans from the ages of 18 to 55. This research traced the subjects' internal changes; identified and compared developmental patterns; and studied "predictable crises." Life is punctuated by "marker events" which constitute "concrete happenings in our lives" (Sheehy, 1974:29). According to Chickering, Sheehy identified six stages of adult development: (1) Pulling Up Roots (15 to 20); (2) Provisional Adulthood (20 to 30); (3) Age Thirty/Transition (30 to 35); (4) Rooting and BOOM (Becoming One's Own Man) (35 to 40); and (6) Restabilization and Flowering (50+) (Chickering, 1975:192). Life consists of passages from one stage to another wherein a person sheds a protective structure allowing for subsequent vulnerability which is at the same time embryonic in nature.

We are not unlike a particularly hardy crustacean. The lobster grows by developing and shedding a series of hard, protective shells. Each time it expands from within, the confining shell must be sloughed off. It is left exposed and vulnerable until, in time, a new covering grows to replace the old.

With each passage . . . we, too, must shed a protective structure. We are left exposed and vulnerable--but also yeasty and embryonic again, capable of stretching in ways we hadn't known before (Sheehy, 1974:29).

Developmental stages are defined by internal changes. Passage to a new stage involves changes in four areas of perception: (1) the interior sense of self as related to others; (2) the "proportion of safeness to danger" (Sheehy, 1974:30); (3) individual perception of time; and (4) one's concept of aliveness versus stagnation. Progression or passage from one stage to another is precipitated by changes in internal and external aspects. The external system encompasses "memberships in the culture: our job, social class, family and social roles, how we present ourselves to and participate in the world" (Sheehy, 1974:30). Internal aspects involve inter-individual ascribing of value to the external events. "The interior realm concerns the meanings this participation has for each of us," the way values, goals, and aspirations are "being invigorated by our present life system" (Sheehy, 1974:30).

2. NEEDS ASSESSMENTS

Women and Minorities

Many needs assessments have been conducted in conjunction with, or prior to, development of special new programs for women students. The assessment of students participating in such programs serves to assist in program evaluation, and in subsequent determination of program efficacy. One such assessment was reported by Marilyn R. Berman at the University of Maryland. Subjects were administered pretests and posttests to evaluate efficacy of a program that had been developed to meet the specific needs of returning, adult women students (Berman, 1976).

The practical and psychological needs of adult female students were compared to those of adult reentry males and traditional-age students in a study conducted by Deborah Johnson (ERIC; ED 165 600). Two hundred undergraduate students from the University of Maryland were randomly selected, including reentry women, age 25 or older, returning men, age 25 or older, and traditional-age men and women, ages 18 through 24. Participants were mailed questionnaires. The study revealed the existence of numerous demographic differences between the groups. When comparing reentry women to the reentry men the following differences were ascertained: (1) women were found to be older than the average returning male student; (2) women adult students were generally more affluent than were the men; and (3) the women had been away from school longer than had the male reentry student. For the most part, the returning women were concerned more with family, identity, and personal fulfillment. The study indicated that reentry women were more involved in university life than were the reentry men, who were often preoccupied with their jobs. The study indicated that campus programs and services "need to be tailored differently for the two groups" (Johnson, p. 7).

Mary Taft Norris (1977) surveyed 62 adult, reentry women for the purpose of analyzing and identifying their characteristics and concerns as reentry students. Most of the women surveyed were returning to school after absences of between 11 and 15 years. The most frequent reason for returning was to meet career or vocational goals. Salient problems expressed by the women students were lack

of study time, financial pressures, and husband disapproval. The women overwhelmingly expressed a positive feeling concerning the results of their return to school. The subjects indicated that re-entry "had made them feel more positive about their abilities" (Norris, 1977:42).

Another study was conducted by Peggy J. Demos (1979) to assess a reentry program for women, to determine the needs of reentry women and to provide information to career counselors concerning the needs of reentry women. The study showed that the reentry program was extremely effective in helping women to identify areas of interest. Two-thirds of the subjects indicated that as a result of the program they had identified talents, abilities, and goals. The program also resulted in greater self-assertiveness. When discussing anticipated problems most of the women queried indicated that they anticipated more problems than they actually encountered. Demos suggested that individual and group counseling should continue with the goal of identifying interests, talents/abilities, goals, and to increase assertiveness; that attention should be focused on alleviating the fears of reentry women; and that emphasis should be placed on provision of "relevant career and job market information" (Demos, 1979:1).

The 1974 article, "Dynamics of Community College Women's Programming," by Maxwell C. King and Muriel Kay Elledge-Heimer, discussed a reentry program for women at Brevard Community College in Cocoa, Florida. The program, WENDI (Women's Educational

Development Incentive), was begun with funds secured from the Comprehensive Employment and Training Act (CETA) Title I and Title III. The purpose of the program was to help women adjust to college life by offering a transition course. The course was designed specifically for women who had been out of the "main-stream" of life and who wished to "clarify goals for further training or for entering the work force" (King and Elledge-Heimer, 1979:80). The program proved to be highly successful, as over three-fifths of the WENDI graduates entered the college for further education, one-fifth entered the labor force, and only one-fifth returned to the home environment.

Some needs assessments have been conducted to describe and/or profile prospective students. One such study was reported by Jennifer B. Kahnweiler and Patricia L. Johnson (1979) in an article entitled "A Midlife Development Profile of the Returning Woman Student." A needs assessment administered to determine the midlife developmental concerns of returning women students focused upon such issues as mentor relationships and future needs of women students. In April, 1979 the Commission on Women of the California Community and Junior College Association held a series of hearings concerning women's issues. The hearings were to ascertain potential student needs, with emphasis upon determination of the needs of potential women students in the California Community College system.

Some needs assessments were conducted to answer specific questions concerning adult women students. For example, Mary Lou Wagner (1980) conducted a series of interviews with 60 black and Puerto

Rican women, half of whom were students at Brookdale Community College in New Jersey, and half were non-students. The study sought to ascertain the following: (1) Do adult, minority women enrolled in college demonstrate differences in regard to motivation, personal interests, and aspirations as compared to minority women non-students? (2) Do adult minority women students tend to be more self-directed than those not seeking further education? and (3) What are the obstacles to further education as perceived by both students and non-students? Another study conducted by Mary J. Stephenson (1980) sought to determine how married women students integrated school and family needs. Primary areas of concern were: decision making, home management, and family relations. Women students were queried as to how decisions were made in the home, and how the division of labor was managed since the female counterpart had returned to school. Changes in patterns of home management and decision making were noted. One study conducted by Sandra Adickes and Elizabeth Worthman sought to specify the needs of working-class women enrolled at Staten Island Community College (Adickes & Worthman, 1976). It was determined that the college failed to be responsive to the specific needs of working-class women.

Another category of women's studies has sought to profile or describe the characteristic needs of adult women students (23+) already enrolled in existing college programs. For example, a needs assessment was conducted in 1980 by the Women's Opportunities Network of the University of Georgia to identify characteristic needs of

non-traditional women students enrolled at the University of Georgia. The data included such areas as respondent characteristics, past and present educational and employment profiles, student plans, major fields of study, educational financing, study habits, extra-curricular activities, and problems with school. Carol E. Kasworm (1978) surveyed the needs of "older than average" students. Research findings indicated that the older students were more mature, possessed well developed analytical-problem-solving abilities, studied longer, and stated a preference for instructor-centered instruction. Mature women students enrolled at Skyline College in San Bruno, California were surveyed primarily to obtain demographic data to describe the typical non-traditional woman student (Steele, 1974). Data also supplied information concerning reentry students, goals, expectations, fears, problems encountered, problems generated at home as a result of returning to school, and difficulties with transportation and scheduling.

Some research projects sought to assess needs of special populations, such as educationally disadvantaged women students, minority women students, bilingual students, and disabled students. Lilian S. Richards (1974) conducted a survey of women at Fresno City College to determine the needs of educationally disadvantaged women. In a presentation for the American Association of Community and Junior Colleges, Jorge M. Perez Ponce (1978) discussed the specific needs of the Spanish-speaking student. The needs of disabled students were discussed in a report prepared by Sylvia S. Spenser (1977) for

the California Association of Postsecondary Educators of the Disabled. Spenser discussed the results of a survey wherein the needs of 4,600 disabled college students were analyzed.

Academic Needs

One category of needs assessments is that which surveys student academic needs. A number of studies had as their chief goal the scrutiny of vocational/occupational curricula as they related to adult student learning needs. One such study was conducted by Betsy Steward (1979) at Cerritos Community College, Norwalk, California. A 46-item questionnaire was administered to 1,386 Cerritos College students to assess student needs. Vocational students were queried in areas such as preferences for teaching methodology, suggestions for course content and types of courses offered, what kind of training was needed for upgrading of job skills, and other pertinent information influencing curricular content of vocational courses.

A study of older college students was conducted by Thomas J. Von der Embse and Judith M. Childs (1978) to correlate chronological age with academic performance. Their hypothesis expressed the belief that older students would have higher grade-point averages than younger, traditional-age students. The study confirmed the hypothesis: 23.4 percent of the older students had GPAs greater than 3.39, in contrast to 15.5 per cent of the younger students. The adults' "problem-solving orientation to

learning and a desire to immediately apply new knowledge" (Embse & Childs, 1978) was believed to contribute to their higher academic achievement. Adults also exhibited greater self-directed commitment to educational goals. This commitment was believed to have contributed to the adults' higher GPAs. The study concluded, therefore, that achievement was associated with age and also with marital status (married women were high achievers).

Howard R. Bowen's 1980 study for the College Entrance Examination Board discussed the policy options for American higher education. One major area of concern was the role of higher education in adult learning. Types of adult learning were scrutinized and implications for curricular design discussed. Bowen proposed a set of guidelines for designing adult educational programs predicated upon awareness of adult learning patterns.

Patricia Connors' (1980) study was primarily concerned with adult learning and the teaching of English composition. Subjects surveyed were traditional (ages 18-24) and non-traditional students (ages 25+). The purpose of the study was to determine whether there were differences between traditional students and non-traditional students in terms of their attitudes toward writing. The study also sought to ascertain student opinions concerning methodology used in teaching writing at the college level.

Math anxiety among women and non-traditional students was the major topic of inquiry in a survey conducted by Ronald L.

Bohuslov (1980) at the College of Alameda. Students were queried for anxiety levels, personal feelings of success in math, instructor's role in feelings of success, sex appropriateness of math, and the perceived future usefulness of math.

David A. Churchman and Susan A. Hellweg (1979) suggested strategy for curricular design of courses meeting the needs of a new clientele, the adult student. New student needs could be addressed through implementation of four possible strategies: innovation, development, specialization, and diversification. Linda R. Greer's 1980 study was concerned with academic performance and persistence. Specifically, the study sought to ascertain whether a difference existed between traditional and non-traditional student academic success and persistence. Three separate studies were conducted and significant differences were noted in all three.

Albert C. Hutchens' major concern in a 1975 study was delivery systems, or modes of presentation. Adult student learning needs were assessed to determine whether there was interest in non-traditional delivery systems. Thirty percent of the respondents indicated a willingness to learn in traditional ways; the remainder expressed interest in new methodology, such as credit for non-collegiate learning and knowledge. The author stressed collegial awareness and recognition of non-traditional learning needs.

A similar study by Nancy L. Conrath (1977) sought to discuss learning needs of the non-traditional students in light of social/cultural aspects. The study noted that the special learning

needs of nontraditional students called for new programs and services. Patricia Cross's article (1977), "The Needs of Non-traditional Learners and the Responses of Non-traditional Programs," discussed the learning needs of the adult nontraditional student and proposed possible solutions to perceived problems (Cross & Zusman, 1980). Matching New Needs with New Resources: Issues in Non-traditional Study, Volume I (Hamilton & Valley, 1976), was devoted to learning needs of non-traditional students. The authors suggested that new needs can best be met with the introduction of new, nontraditional methods.

Student Services/Extra-Academic Issues

One category of needs assessments is primarily interested in determination of student needs in light of non-academic issues, such as personnel services, access issues, counseling, and career planning and advisement. Brodzinski et al. (1980) discussed the needs of the adult student in light of personnel services. The new adult student has specific needs that present challenges to student service personnel, and it is necessary for the student service professional to be responsive to and to develop strategies to meet the needs of adult students. The counseling needs of the non-traditional student were studied by Bernard Ancheta (1980). Ancheta's research studied differences between counseling needs of traditional and nontraditional students. No significant differences were found between traditional and nontraditional students; however, counseling services in general were found to be inadequate.

Services should be upgraded to meet the needs of both the traditional and the nontraditional student.

Numerous articles address the issue of the efficacy of student services in light of a new clientele, the adult student. Rita A. White's (1978) study of 15 southern California community colleges revealed that stumbling blocks, inconveniences, unnecessary problems, and inadvertent insults impede program accessibility and constitute barriers to educational participation on the part of the prospective adult student. White's suggestions for improvement included:

1. Catalogue revisions eliminating excessive references to parental approval and involvement.
2. Evening and weekend class offerings.
3. Student services directed toward adult student needs and available during evenings and weekends.
4. Financial aid for adult students.
5. Use of computer-assisted continuous registration wherein students could register via terminals, mail or telephone (White, 1978:14).

In an article entitled "What's so Non-traditional About Non-traditional Students?" Pearl G. Waterhouse (1978) discussed the need for changes in student services to accommodate the influx of adult students. Waterhouse's suggestions closely parallel those suggested by White (1978). Frederick R. Brodzinski (1980) pointed out inappropriate policies and procedures in effect at colleges and universities which constitute barriers to adult students. According to Brodzinski, the primary concern of university personnel should be

recruitment and retention of adult students, especially in light of declining enrollments. "One sector of higher education which has a significant impact on those activities is the student services/student affairs area" (Brodzinski, 1980:2). Brodzinski urged adoption of policies, programs, and procedures "to better serve adult learners or at the very least, avoid creating obstacles to continued adult student enrollment" (Brodzinski, 1980:2). Inappropriate policies were cited such as:

- (1) Institutional correspondence addressed to "Dear Parent."
 - (2) Student government geared to adolescent social programming.
 - (3) Counseling centers oriented to the developmental needs of eighteen to twenty-one year olds.
 - (4) Placement centers that focus on entry-level positions.
 - (5) Student activities or student center programs that emphasize daytime activities on weekdays.
 - (6) Admissions applications requiring letters from high school teachers.
 - (7) Cafeterias that serve "high caloric adolescent food."
 - (8) Closing offices at 5:00 p.m.
 - (9) Scheduling of a major concert on an evening when adult students need the parking space to attend class
- (Brodzinski, 1980:3).

Brodzinski suggested that student service personnel adopt new policies geared to eliminate such barriers, and that programs, policies and procedures to serve the adult student better should be implemented.

Trotsky (1974) studied registration and orientation procedures of Federal City College in light of the adult senior student (undergraduate students age 31+). Analysis of questionnaire data revealed a need for changes in registration and orientation procedures, class scheduling, academic advising, and types of supportive services.

Reentry

Another area for concern has been reentry of the adult student. Reentry students are adult students who return to school after an absence of several years. Larry M. Lance (1979) reported the results of a needs assessment that was conducted at an unnamed, southeastern, public university. Reentry adult students responded to a questionnaire designed to designate student service needs of reentry students. Needs were noted in the areas of counseling, lounge facilities, and specialized credit courses. A number of articles addressed the needs of reentry women students. Eugenia Kelman and Bonnie Staley (1974) administered a questionnaire to adult women reentry students at Colorado State University. "The survey was designed, in accordance with the Moore and Delworth (1972) program/developmental model, to assess the needs" of the returning woman student "for outreach programs to facilitate their educational development" (Kelman & Staley, 1974:7). Most of the returning women expressed confidence in their academic skills, hence giving "skill-building programs" less priority (Kelman & Staley, 1974:18). These women students expressed need for convenient "on campus or near-campus" day-care centers, orientation procedures geared to reentry women students; social skills training; social contact with other reentry adult students; vocational advisement and preparation; and job placement services.

Larry M. Lance, Joan Courie, and Cynthia Mayo (1979) conducted a study to identify needs of reentry adult students

and to ascertain whether differences in expressed needs existed according to sex, age, or length of interruption in schooling. Reentry students were defined as students having been out of school two years or more. Specific concerns were: (1) the kinds of university services being considered for reentry students; (2) existing counseling center services available to reentry students; (3) difficulties encountered by reentry students; and (4) social, demographic characteristics of respondents. Analysis of 583 questionnaires revealed that: (1) reentry students requested assistance aimed at assimilation into the main stream of the college community (the most frequent request, 83.5 percent, being for a re-entry admissions counselor); (2) reentry students expressed a need for educational counseling and workshop services such as courses in speed reading and paper-writing, individual counseling, assistance in career exploration and development, and evening counseling. Women expressed stronger needs for certain services than did male students (women requested services such as day care services, appropriate orientation, and peer counselors). Males expressed greater need than females for areas such as speed-reading and note-taking skills. The conclusion was that reentry students did exhibit some common needs, and that female reentry students tended to "express stronger needs than reentry males" (Lance, Courie, & Mayo, 1979:483).

Under the auspices of the State University of New York at Albany and the New York State Education Bureau, Joseph A. Mangano and Thomas J. Corrado (1978) conducted a study of educational needs of reentry

adult college students. Three groups of subjects (1,177 students and 66 faculty/staff) consisting of faculty/staff, traditional-aged college students (17-24 years), and adult students (25+) were administered the Survey of Student Needs. The survey encompassed the following areas: Academic Survival Skills, Personal Development, Instructional Patterns, Curricular Services, and Support Services. Results indicated: (1) reentry adult students exhibited a greater need for vocabulary and math skill improvement; (2) reentry adults expressed interest in evening and weekend classes, and life-experience credits; (3) both older and younger students expressed needs for remedial services, a preference for memory, concentration, and study skill improvement; and (4) both adult and younger students expressed a preference for competent yet informal and relaxed instructors. Data indicated that faculty/staff perceived and attributed a greater significance to the needs of reentry adult students than did the students themselves.

The special needs of reentry women students at Fresno City College were studied by Lillian S. Richards (1976). Problems identified were: shortage of time; role conflicts; anxiety related to return to school; "feelings of inadequacy, self-consciousness about age, and general disorientation to the college environment" (Richards, 1976:38); financial difficulties; need for child care facilities; need to improve study skills; lack of appropriate counseling; "expressed a desire to have counseling oriented more

toward the older, returning woman student and thereby help her to adjust to school" (Richards, 1976:39); problems with instructors; and lack of family support. Sixty percent of the respondents indicated a lack of family support of their decision to return to school. Recommendations were made, such as expansion of financial aid categories; counseling directed to adult reentry women; institutional commitment to women; and development of reentry programs directed to women.

Kathleen Magill's and Kathryn Cirkse's (1978) study of reentry adult women students attempted to determine reasons for women returning to school. Women who had been out of school were queried as to their reasons for returning, and the degree to which colleges were meeting their specific needs. The greatest reason for reentry was preparation for employment (Magill & Cirkse, 1978:17).

Barriers confronted by reentry adult women students were discussed in an article by Ester Benjamin and Judith A. Levey (1979).

Institutional barriers encountered by reentry women students were in the areas of student services, admissions, and financial aid.

Situational barriers were identified, such as unfamiliarity with the system, financial needs, role conflicts, need for child care, "rusty" skills, and inadequate preparation. Joan Lourie (1977) discussed an assessment conducted at the University of North Carolina at Charlotte. Reentry adult students were questioned to determine the characteristics of this student population, and to ascertain

student needs and problems. A need for services that facilitate transition to academic life was indicated. Other expressed needs were for reentry admissions counselors and special reentry courses.

Descriptive Factors

This category of needs assessment has as its primary goal the description and enumeration of adult student characteristics. The speciality areas include demographic data, psychological attributes, and sociological attributes. Max R. Raines (1977) assigned community college clientele into two major categories: (1) "idiographic or individual-centered types," and (2) "nomothetic or societally centered types" (Raines, 1977). Specific needs arise from each category and result in specific behavioral transaction patterns indigenous to the specified major category. William Hyde (1980) reviewed data collected from the Current Population Survey and arrived at basic descriptors of community college students. He compared the demographic and socioeconomic characteristics of community college students to the average student attending a four-year institution. Thurston L. Cosner (1980) discussed the need for assessing attributes such as anxiety levels, cognitive styles, locus of control, and conceptual levels. Such descriptive attributes should be assessed and used in developing individualized learning modes for non-traditional students. Sometimes descriptive profiles of

prospective students are sought in order to assess community needs as they relate to a specific college. In 1980 a needs assessment was conducted for the Santa Ana College and the Rancho Santiago Community College District to determine the service community's demographic characteristics. The primary purpose was to determine the extent to which community needs were being met, and what improvements could be made (Slark & Gateman, 1980).

Patricia K. Cross has conducted extensive research into adult, non-traditional learners and their educational needs. In 1977, Cross and Zusman published the results of a two-year evaluation of non-traditional students and non-traditional educational programs designed to meet the needs of adult students. Non-traditional adult students were defined as adult part-time learners between the ages of 17 and 80, or older, "who combine adult responsibilities of job, home, and family with educational activities (Cross & Zusman, 1977:7). Specifically, the study sought to ascertain program adequacy to determine how well non-traditional programs served student needs, and to assess the question of accessibility, "equal opportunity issues" (Cross & Zusman, 1977:10). The data were derived from projects conducted by state and national agencies. They discovered that most adult students were disproportionately white, well-educated, white-collar workers of the middle- and upper-classes (Cross & Zusman, 1977:8-45). According to the authors, "adult education is serving the privileged classes out of proportion to their numbers in the population (Cross & Zusman, 1977:17). The underrepresented groups

were ethnic minorities, the elderly (people over 55), people with low educational attainments (less than a twelfth grade education), those from the lower economic strata of society, and part-time workers. The Cross and Zusman research was also concerned with developing a profile of learner needs. State, regional, and national needs assessments were analyzed to arrive at a taxonomy of learner needs. Expressed needs of nontraditional, adult students were categorized according to administrative accommodations (e.g., scheduling and location), teaching/learning considerations (e.g., learning methods, delivery, motives for learning, course content, curricular options), student services (e.g., financial aid, information, guidance, advocacy, orientation), and measurement of educational accomplishments or assessment (e.g., recognition, certification, assessment).

Program responses to learner needs constituted the fourth aspect of the Cross and Zusman study. They discovered that despite an upsurge of interest in the nontraditional student on the part of colleges and universities, the

. . . design and implementation of programs have been mostly "grass roots" affairs, characterized by enormous range and diversity of program characteristics . . . it is virtually impossible to describe a typical non-traditional program for adult part-time learners, and increasingly difficult to describe the diversity in a neat scheme of classification (Cross & Zusman, 1977:104).

They discovered attempts to match program offerings and services student needs and interests:

Where a program can identify a target group of learners with relatively homogeneous needs profile, the range of components offered can be fairly limited. At the other end of the continuum of program complexity might be the very large programs that offer a maximum number of alternatives in the effort to meet the broad spectrum of learner needs (Cross & Zusman, 1977:112).

Essentially, the prevailing trend seems to be deployment of new and different forms of education and services directed specifically to the nontraditional adult learner (e.g., elderhostel, brokerage services, creditation and validation measures which consider work experiences, financial entitlements by non-profit agencies, etc.).

3. PROGRAMMATIC CONCERNS

The second category of needs assessments is concerned with program development. Programs developed primarily to serve the adult student are classified as nontraditional programs. Numerous typologies have emerged to describe the vast array of nontraditional programs. This paper uses the typology (see page 26) developed by J. R. Valley (1972). Although six models were proposed by Valley, only the first two, the administrative-facilitation model and the modes-of-learning model, seemed applicable in this study.

Administrative-Facilitation Model

The administrative-facilitation model involves implementation of administrative arrangements to accommodate student needs. The most common model concerns facilitation of access to a college or university by development of off-campus programs, evening school, registration

by mail correspondence courses. Robert J. Hatala (1977) discussed how colleges can best meet the needs of commuting students, hence attracting more nontraditional students. Loribeth Weinstein (1980) discussed the need for changes in recruitment and admissions policies related to reentry women. Barriers affecting reentry women were discussed, such as "institutional policies and procedures with respect to applications, admissions, enrollment, transfer of credit, scheduling, and situational obstacles such as child care, financial needs, and transportation" (Weinstein, 1980:3-4). Weinstein suggested recruitment of women into areas traditionally "male" academic, or vocational programs. Admissions procedures and requirements for these traditionally "male" programs should be changed to encourage and allow for larger female enrollments.

Elaine M. Dillhunt (1979) described a counseling program developed at Northern Kentucky State University, wherein a program entitled "Peer Support Organization" provided chances for older students to discuss problems with peers. Rennee Creanze (1980) discussed how provision of child care facilities would increase educational access and participation by both sexes. In support of her argument for the inclusion of child care facilities, Creanze cited a study conducted by the Office for Student Services at the University of Michigan. The study found that "one-fifth to one-fourth of the students surveyed would positively seek more employment or education if child care services were available" (Creaenze, 1980:3). Advantages of providing child care included recruitment, retention

aid to academic programs in early childhood education ("provides a laboratory setting for students in childhood education"), attendance (decreases lateness and absenteeism), aid in faculty and staff scheduling by "enabling faculty with small children to teach classes at a variety of times"; and "attract and retain competent employees for secretarial, maintenance, food service, and administrative positions" (Creanze, 1980:4).

Margaret C. Dunkle (1981) discussed the financial needs of reentry female students, and suggested ways institutions could be more responsive to such needs. Suggestions included introduction of tuition deferrals for reentry adult students, more flexible loan payment options, reduced tuition or other cost breaks, financial aid for part-time students, emergency assistance funds, and packaging student aid for the adult student. Weinstein (1981) discussed the counseling needs of reentry women. Weinstein stated that many problems confronted by reentry women could be "alleviated through provision of counseling services specifically designed for these women" (Weinstein, 1981:2). Rollin J. Watson (1981) presented a historical overview of student personnel services, functions, and philosophies. Watson noted that a widely diversified student body (including the influx of the adult learner) was calling for changes in student development personnel functions. He cited the need for "increased personal attention to minorities and the disadvantaged" (Watson, 1981:9). Watson defined student development personnel as educators who create programs contributing to the comprehensive educational growth of

the student. Watson stated that there was a need for programming that addressed the comprehensive educational growth of students through integration of academic and non-academic programming. Three major categories of programs were suggested: (1) courses in human development, life-style planning, and personal understanding; (2) independent study and experimental learning; and (3) remediation and effective learning efforts. Watson stated that colleges needed to provide for a "personalized environment" by changing the counseling emphasis to include peer counselors, specialized counselors, "outreach activities" (counselors act as the student's advocate, going where the students are), satellite counseling centers, and group counseling" (Watson, 1981:10).

Deanna Chitayat and Elsa Rael (1978) discussed a handbook which was developed to assist in pre-admission counseling of women students. The handbook, which served to encourage women in non-traditional career options, was based upon the assumption that women want meaningful careers, but lack the confidence, skills, and training to pursue their aspirations.

The workshop series encouraged women to share their predictable anxieties in the face of an undertaking as major as college enrollment. They shared their feelings of indecision concerning future goals, their feelings of low self-esteem and fear of failure, their ambivalence between the need to fulfill themselves and the desire to maintain the basic structure of their lives (Chitayat & Rael, 1978:2-3).

James R. East and Paul T. McKelvey (1980) described how the Indiana University, Purdue University extension in Indianapolis meets the

access problem by offering courses in suburban shopping centers.

Chickering (1976) addressed the access problem in an article entitled "Problems in the Postsecondary Education of Adults."

Chickering stressed the need to solve problems of distance, scheduling, advising, and financial aid as they relate to the adult student.

The diversity of adult student needs demands educational standards that, while encouraging learning and providing for substantive evaluation, allow for sufficient diversity to meet the wide differences among adult students.

Effective education depends upon clear relationships between purposes and programs. Without access little education can occur. But unless access leads to educational opportunities pertinent to students' motives, learning and persistence will be limited. There are major developmental differences among adults. Educational practices which ignore these will misfire for many (Chickering, 1976:5).

Chickering recommended the development of "standards banks" that would define: (1) criterion-referenced standards; (2) norm-referenced standards; and (3) learner-referenced standards.

A. M. Vener and R. L. Krupka (1980) evaluated the academic advising and career counseling services at Michigan State University. These student services were found deficient and ineffective, especially in light of the growing number of non-traditional students.

Modes-of-Learning Model

The Modes-of-Learning Model involves modification of curriculum to satisfy learning interests and needs of adult

students. The model frequently includes administrative accommodations and/or arrangements found in the administrative-facilitation model. Frequently, curricular trends encompassed in this category tend to be interdisciplinary and depart from standard departmental disciplines. For example, Sandra M. Dylla and Jill B. Gidmark (1980) described a communication skills program at the University of Minnesota. The purpose of the program was strengthening of the communication skills of non-traditional students. The program integrated the nontraditional student into regular college courses. The courses were directed to international and resident alien students and bilingual Chicano students.

Faculty at Chabot College discussed the need for non-traditional course offerings to meet the academic needs of adult students. Don Sherwood Mayo (1979) reported the results of a "brainstorming" session which was held in response to high rates of attrition among nontraditional students. The session showed that additional basic skills instruction should be incorporated for marginally performing students, and that additional courses be added for those desiring instruction in special interest areas at Chabot College. A "Library-College" program is also being considered by the college, which would provide individualized instruction, utilizing materials and equipment under the guidance of professional librarians.

Stephen Jonas (1980) discussed new developmental programs at Lorain County Community College. Developmental programs were designed to improve skills for their own merit and not for remedial purposes, although they could also serve to remediate. Cora de Rowe (1980) likewise addressed the subject of the developmental needs of adult, nontraditional students in a 1979 paper wherein she described a learning center at Glendale Community College. The purpose of the center was to remediate academic deficiencies, especially those of the adult, non-traditional student.

Two innovative programs at Loretto Heights College were described by Elenor Greenberg (1980): Project Transition and the University Without Walls (UWW) Program. Project Transition was designed to assist the adult reentry student in transition to college life. The UWW allows for individualized programming and degree requirements based upon a learner-centered approach. Credit for experiential, non-collegial work is granted and allows for recognition of a vast array of student backgrounds.

Pamela Alexandra (1976) discussed the Women's Reentry to Education Program (WREP) at San Jose City College. The program was designed for women from the lower socioeconomic strata, and assisted in acquisition of necessary skills for new careers. The program sought to assist women seeking new occupational, educational, and/or personal aims. Jack Megirow

(1978) and Amy D. Rose reported that over three hundred community colleges have established special reentry programs designed to assist reentry adult women students. Megirow and Rose discussed how to evaluate and determine efficacy of such programs.

According to George Cheney and Terry F. Bass (1980), nontraditional adult students need custom-designed special course offerings which are highly individualized. Unlike most traditional students, nontraditional students lack of history of active contact with institutions of higher learning, and therefore require special, individualized programs. On the other hand, Evelyn Unes Hansen (1980) reported that the initiation of an individualized baccalaureate degree at the General College of the University of Minnesota was essentially ineffective. The faculty viewed such individualization as a burden. The Southern Association of Colleges and Schools (1979) has published a compilation of essays concerned with the adult student. Numerous articles addressed the academic concerns and needs of the adult student, suggesting curricular and programmatic changes. For example, E. T. Godbey profiled the adult student, discussing needed changes in instructional processes. He argued for changes in teaching methods and general teacher tone and patience (in Southern Association of Colleges & Schools, "The Older Student Phenomenon," 1979:1).

Warren M. Zeik (1980) described innovative programming instituted at the adult education "weekend college" at Marymount

College; in another article, Kathleen M. O'Donnell and William D. Berkeley (1980) described the national Elderhostel program. Karen Lewis Dale (1980) discussed how English programs in two-year colleges could be improved by using the expertise of the older, more experienced, adult student. These nontraditional students often have strengths and experience which can enable them to relate readily to literary characters and their inner conflicts. Elinor Greenberg (1980) presented a series of guidelines aimed at enhancing and building quality programs. Twenty organizing principles based upon theory and practice were suggested. Sal Manna (198) described the Peoples' College of Law in Los Angeles which eschews many traditional academic practices to allow unlimited program accessibility. Oonagh Harnett (1980) described and discussed the growth of university programs designed to bridge the transition of women from home to the college or to the labor force. Iran C. Mohsenin (1980) discussed how peer-sponsored conferences could help bridge the gap between home and school by allowing for contact and counseling with other reentry college women students.

Hermine S. Muskat (1978) listed specific components for the development of curricula directed toward the reentry adult woman student. Theodore J. Marchese (1975) described a project at Barat College designed to enroll and serve the needs of the adult, nontraditional, woman student. The project was designed

to encourage women to return to school; to restructure courses to meet identified academic needs of reentry adult female students; and to provide "cross-generational learning formats for all students" (Marchese, 1975).

Nancy S. Bryan and Richard B. Gregory (1980) discussed implementation of an individualized system of instruction for typing and shorthand for non-traditional, adult students. Another article by William A. Charland (1978) described the Project Transition which resulted from a university without walls program for adult students. The project was predicated upon the theory that adults in mid-life seeking higher education were generally attempting to reshape their personal identity and were in need of supportive reentry experiences. Michael H. Parsons (1976) described a modularized, audio-tutorial, contractual system of instruction instituted by Hagerstown Junior College to meet the academic needs of adult, nontraditional students.

4. SUMMARY

The literature review focused upon two major areas, adult developmental stages and needs assessments. The major thrust of this study is to investigate how needs vary in relation to life stages; hence the need to study literature pertaining to the above listed areas.

"It is at least a testable hypothesis that there are predictable populations of adults who are ready for specially designed educational programs that meet their needs" (Weathersby & Tarule, 1980:11).

Often people's needs grow out of the larger context of life.

Individual developmental changes precipitate ensuing changes in perceived needs. According to Weathersby and Tarule, "education enables the satisfaction of different developmental needs depending on a student's place in the life cycle" (1980:11). Chickering claimed that research into life span developmental psychology and adult development can enable educators to think "more soundly about content and process" (1975:196), and thereby help to clarify the motives behind student investments of time, money, energy, and personal services.

Educators should determine the needs of their clientele and consider such needs as they relate to and change in light of developmental life stages. Correlation of needs and developmental progression can lead to subsequent predictions concerning the possible changes ascribed to various life stages, therefore allowing for programmatic changes which will meet the ensuing needs of clientele. Study of adult developmental psychology can also lead to accurate anticipation and understanding of student problems, yielding valid prognostications and effective program planning. Chickering stated that:

. . . motives for learning, learning processes and orientations toward knowledge are linked to levels of ego development, moral development and intellectual development. These motives and orientations in turn define certain institutional functions or roles. Learning processes, and educational practices consistent with them, are then developed to carry out the institutional functions. Given a particular level of development with its attendant motives, orientations, and learning styles,

a systematic institutional response can be created which best serves students at that level (Chickering, 1975:197).

At present, colleges and universities tend to satisfy the developmental needs of young adults and those of early adulthood, hence addressing only a few developmental levels. Generally schools are failing to recognize, let alone respond to, the needs of students at other developmental levels with their "attendant orientations, motives, and learning styles" (Chickering, 1975:203). Most universities tend to "treat education as though it were a commodity, a collection of discrete items, packaged in a few standard-sized boxes, sold by the Carnegie unit" (Chickering, 1975:203). There is a need to "rethink the role of education in mediating life-structure transitions and in enabling people in middle and late adulthood to find resources for restructuring their lives" (Weathersby & Tarule, 1980:11).

CHAPTER III

METHOD

The objective of the study was to ascertain student needs, and determine whether such needs differ significantly according to age, sex, categorization as traditional aged student (TAS: 18-22) or nontraditional aged student (NTAS: 23+), and especially to ascertain whether needs differ according to adult life stages. Because of the exploratory nature of the study a significance level of .10 was used. The primary analysis was the Kruskal-Wallis one-way analysis of variance (H scores). The following null hypotheses were tested using the Kruskal-Wallis nonparametric one-way analysis of variance.

H₀ 1: There is no difference among the average H scores of the seven adult life stage task categories (ALSTC); therefore, the needs of students do not differ according to adult life stages.

H₀ 1-A(1): There is no difference among the average H scores of female nontraditional aged students (NTAS) in respect to the ALSTC.

H₀ 1-A(2): There is no difference among the average H scores of NTAS male respondents in the various ALSTC.

H₀ 1-B(1): There is no difference among the average H scores of traditional aged student (TAS) females in respect to ALSTC.

- H₀ 1-B(2): There is no difference among the average H scores of TAS male respondents in the various ALSTC.
- H₀ 1-C: There is no difference among the average H scores of NTAS in respect to ALSTC.
- H₀ 1-D: There is no difference among the average H scores of TAS in relation to ALSTC.
- H₀ 2: There is no difference among the average H scores of men and women; therefore, the needs of male students do not differ significantly from those of female students.
- H₀ 3-A: There is no difference among the average H scores of TAS male respondents and TAS female respondents.
- H₀ 3-B: There is no difference among the average H scores of NTAS male students and NTAS female students.
- H₀ 4: There is no difference among the average H scores of students from the different age groupings (see Part II, Question 2, Survey of Student Needs, Appendix A).
- H₀ 5: There is no difference among the average scores of NTAS in various age groups.
- H₀ 6-A: There is no difference among the average H scores of NTAS male students within various age groups (see Part II, Question 2, responses 2-7, Survey of Student Needs, Appendix A).

H₀ 6-B: There is no difference among the average H scores of NTAS female students within various age groups.

H₀ 7: There is no difference among the average H scores of TAS female students.

H₀ 8: There is no difference among the average H scores of NTAS female student response rates.

1. INSTRUMENTATION

Participants were administered a 63-item questionnaire which included demographic characteristics and a variety of academic, service, and psychological needs. The questionnaire, "A Survey of Student Needs," utilized 56 questions from the questionnaire devised by Joseph A. Mangano and Thomas J. Corrado for a 1978 study commissioned by the Grants Administration Bureau of the New York State Department of Education (Mangano & Corrado, 1978). In addition, seven questions comprising the category of Psychological Impediments, were added. These seven questions concerning the area of psychological impediments covered two basic areas: (1) problems anticipated and encountered and (2) personal adjustments or conflicts.

"Needs" encompassed six conceptual categories or facets of the university experience (see Table 1). The six facets consist of five which were identified by Mangano and Corrado and the sixth category, Psychological Impediments, contributed by the author and based upon a literature review.

TABLE 1
ITEM-FACET MEMBERSHIP*

Facet	Item
Academic Survival Skills	8,16,27,39,41,48,56
Personal Development	7,11,19,21,24,26,29,34,35,38, 42,44,51,52,53,54
Psychological Impediments	57,58,59,60,61,62,63
Instructional Patterns	4,5,13,28,30,32,33,36,45,46, 49,55
Institutional Curricular Services	3,9,10,12,14,20,23,40,43,50
Institutional Support Services	1,2,6,15,17,18,22,25,31,37,47

*An item-facet membership is a group of items from the "Survey of Student Needs," that fall within specific categories pertaining to facets of university life. Items from the questionnaire subsumed under a specific facet pertain to one specific area of student needs.

Note: Item-facet categories for the "Survey of Student Needs" were developed by Joseph Mangano and Thomas J. Corrado (1978). Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

Mangano and Corrado (1978:13) presented the following discussion of the instrument:

The Survey of Student Needs was developed with input from two-year college personnel, with recommendations by professionals in the field of educational measurement, and with information gleaned from a literature review in conjunction with an examination of survey instruments used in other needs assessments.

Following a pretesting of the items, the original form was modified to its final version which consists of 75 items tapping the following five conceptual categories or "facets" of a student's college experience

Academic Survival Skills: basic tools of academic competence;

Personal Development: personal-social skills, generalizable to a variety of situations, not typically regarded as curriculum determinants;

Instructional Patterns: instructional policies, practices, and attitudes that affect a student's academic performance;

Institutional Curricular Services: administrative procedures that establish the institutional context;

Institutional Support Services: institutional services that remediate, maintain, or enhance a student's educational experience.

The Survey of Student Needs was then pilot tested on 242 students attending Fulton-Montgomery Community College (Johnstown, New York). These data were presented at the annual meeting of the New England Educational Research Organization (Corrado & Mangano, 1978), thereby providing the staff with additional opportunities for feedback from colleagues.

Various computations have yielded information regarding the resultant survey instrument. The average completion time for two-year college students was 15 minutes. The average readability level (Gunning Formula, 1952) has been computed at 7.5. The Survey of Student Needs has a coefficient of internal consistency (coefficient alpha, a measure of scale reliability of .95; the coefficients of the five facets range from .72 to .92.

2. SUBJECTS

Two hundred and eighty-seven (287) students (men and women) enrolled in graduate, undergraduate, non-degree programs, and non-credit evening-school courses at The University of Tennessee, Knoxville for the Summer and Fall quarters (June-December) 1981 were the subjects for the study. They were enrolled in both day- and evening-school. The sample also included students who were part-time as well as full-time students. A stratified sample was sought according to the following seven age-related categories proposed by Vivian Rodgers McCoy (1978):

1. Ages 18-22: Leaving home
2. Ages 23-28: Becoming adult
3. Ages 29-34: Catch 30
4. Ages 35-43: Midlife reexamination
5. Ages 44-55: Restabilization
6. Ages 56-64: Preparation for retirement
7. Ages 65+: Retirement.

3. DATA COLLECTION

Questionnaires were administered to complete, intact classes at The University of Tennessee, Knoxville. Classes included credit and non-credit courses; evening-school and day classes, and graduate and undergraduate courses. The classes included the following academic majors: business, education, fine arts, and liberal arts.

The following specific academic areas were represented: marketing, physical education, library science, educational administration and supervision, industrial art education, transportation, city planning, and music. The physical education courses were general college requirements involving all undergraduate students, hence allowing for diverse representation. Three hundred questionnaires were administered, yielding 287 usable surveys (a 96 percent return).¹

4. STATISTICAL TESTS

The Kruskal-Wallis one-way analysis of variance by ranks was used to determine whether significant differences existed within stated categories. The following specific categories were considered for analysis and comparison: age, sex, sex and age combined, adult life stages, and combined age, sex, and adult life stages. The sums of responses ($\sum_{j=1}^k R_n$) of k independent samples for each group were compared to the sums of responses of k independent samples for all other groups within a given category for comparison. The responses to each question of the questionnaire were summed for each group, and groups were compared within a given category. Separate analyses were run for each category, yielding at least seven different categories that were analyzed using the

¹Classes participating in the study were taught by professors who agreed to administer the survey.

Kruskal-Wallis one-way analysis of variance. Group differences were analyzed at both item and category levels, with major categories or facets being: Academic Survival Skills, Personal Development, Instructional Patterns, Institutional Curricular Services, Instructional Support Services, and Psychological Impediments. Frequency and percentage tabulations, means, median, mode, standard deviations, and rankings were computed for all relevant variables.

5. ANALYSIS OF DATA

In preparation for computer analysis all data were entered onto scan forms, scanned, and recorded on computer tape. The data analyzed were obtained from the "Survey of Student Needs" questionnaire. The questionnaire contained two sections. Section One, Questions 1 through 63, was concerned with student needs. Subjects responded to each question, indicating the importance of each item by circling one of five choices. The scale ran from 1, denoting no importance, to 5, indicating very high importance (see Appendix A, "Survey of Student Needs"). Section Two, entitled "Current Status," contained demographic data such as age, sex, marital status, employment, amount of schooling. The second section provided the categories for comparison of frequency of responses made to questions from Section One. Numerical data were analyzed by computer. The computer programs (SAS) generated frequency data, group means, median, mode, and standard deviation. Such data were generated for each of the 63

questions of Section One and for the six item-member facets (for item-member facets see Table 1, page 76).

Data were also analyzed by computer for generation of H scores. The Kruskal-Wallis one-way analysis of variance was used to generate H scores. A non-parametric test was used as the major analysis procedure because the data were basically ordinal and sample sizes within various categories were small. Homogeneity of variance could not be assumed because the various groups compared were not equal in size. The non-parametric Kruskal-Wallis was used to determine whether three or more independent samples came from the same population. Hence, k treatments were applied to k independent groups of $n_1, n_2, \dots, n_k$ members, and a measurement obtained for each group (see Ferguson, 1971:336). The Kruskal-Wallis is the non-parametric equivalent to the parametric ANOVA (one-way analysis of variance) and as such compares groups in terms of mean scores. The difference between the Kruskal-Wallis and the Mann-Whitney U lies in the number of groups being compared. The Kruskal-Wallis one-way analysis of variance allows for analysis of numerous categories, as opposed to the Mann-Whitney U test (a non-parametric equivalent to the parametric t-test).

The format for the taxonomies was inspired by research conducted by Mangano and Corrado (1978:18-20), and a portion of the discussion concerning the steps taken to formulate the taxonomies was taken directly from the 1978 article. Some of the phraseology

is exactly that used by Mangano and Corrado and such portions are presented in passim. The taxonomies involved three levels of needs ranking within six item-member facets (see Table 1, page 76, for a listing of item-member facets) across the seven task categories.

Taxonomies were constructed in the following manner:

1. The 63 items from Section One were ranked according to mean, median, mode, and Standard Deviation, and cross tabulated with task categories.
2. The top 25 percent (16 items) and the bottom 25 percent (16 items) of the ranked order were designated as "First Order and Third Order," respectively. The remaining 31 (middle) items were labeled "Second Order." Hence, "priority items, high and low, were differentiated from those which clustered around the midpoint of the overall survey."
3. "All items were placed under their appropriate facets and the facets were placed into two domains, 'Learner' and 'Provider.' The 'Learner' domain included the following facets: Academic Survival Skills, Personal Development," and Psychological Impediments. "Institutional Curricular Services, Institutional Support Services, and Instructional Patterns were the three facets subsumed under the 'Provider' domain."

4. Items were ranked within facets and displayed in the matrix-format similar to that developed by Mangano and Corrado (1978:18).

In summary, data were analyzed as follows:

1. Data were scanned for frequency data including percentages, numbers of responses per item per demographic category, rank ordering of means, means, median, mode, and standard deviation.
2. Mean responses were compared using the Kruskal-Wallis one-way analysis of variance test.
3. Frequencies data for subjects (287) were organized into two separate taxonomies of student needs, one for NTAS and one for the total student population. The resultant rankings were presented in a matrix-format developed by Mangano and Corrado (1978).

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

1. INTRODUCTION

The primary objective of this study was to analyze, determine, and describe the needs of students enrolled at The University of Tennessee for the purpose of contributing to the research literature on adult, nontraditional students, and to test the following general hypothesis: H_0 = There is no difference among the average H scores of the seven adult life stage groups; therefore, the needs of students do not differ according to adult life stages. The study had two additional objectives: (1) to determine whether significant differences existed in the response means of traditional aged students (TAS) and of nontraditional aged students (NTAS); (2) to categorize and prepare a Taxonomy of the means and mode responses of NTAS according to adult life stage task categories (ALSTC), hence facilitating efforts to analyze and describe perceived needs of NTAS as they change over the life-span. A similar taxonomy for the whole sample ($n=287$) was likewise prepared.

The results of the study are presented in four sections consistent with the stated objectives and research design of the study:

1. To study frequency tabulations and measures of central tendency for significant relationships.
2. To compare categories of students and determine whether

significant differences exist between the stated categories. The following categories were considered: age, sex, life stages, or adult life stage task categories (ALSTC), traditional (TAS), and nontraditional students (NTAS).

3. To identify perceived needs of NTAS and to Taxonomize the identified needs as they relate to ALSTC (McCoy's Model, 1978).
4. To categorize adult students according to life stages, discussing relationships in terms of age gradients (seven age groups, see Section II, Question 2, Survey of Student Needs, Appendix A) vs. task categories (ALSTC, see Section II, Question 18, Survey of Student Needs, Appendix A).

The first section presents descriptive data for the sample (n=287). The second section includes results from application of the Kruskal-Wallis one-way analysis of variance by ranks. The results of data analysis relating to the null hypotheses are presented in this section. The third section includes the Taxonomy of Needs for NTAS. A separate taxonomy was constructed for the total sample (n=287). The fourth section includes a discussion of measures pertaining to adult life stages, comparing test results. Two factors contribute to movement through the lifeline, biological and social/psychological factors. In this study ALSTC represents the social/psychological facets. The fourth section presents all data pertaining to these two factors.

2. DESCRIPTIVE CHARACTERISTICS OF THE SAMPLE

The sample (n=287) included traditional college-age students (TAS) between the ages of 18 and 22, and nontraditional adult students (NTAS) ages 23+. There were 145 male students and 138 female students. Approximately 60 percent of the sample were traditional age students (TAS); the remaining 40 percent were nontraditional aged students (NTAS).

Table 2 provides the student demographic data. Seventy-three percent of the participants were single, 23 percent were married, and 3 percent were widowed, divorced, or separated. Forty-one percent of the sample were not employed; while 40 percent were employed part-time, and 19 percent held full-time jobs. Approximately 44 percent of the participants were reentry students, having been out of school two years or more. Sixty-two percent of the subjects were day students, 15 percent were evening school students, and 21 percent attended both day and evening classes. (Two percent did not indicate their student status.) Eighty-two percent of the sample had been enrolled in courses at the university for at least two terms. These were not necessarily consecutive enrollments, hence accounting for reentry enrollments. Approximately 45 percent were business majors, 16 percent were education majors, 10 percent were in liberal arts, and 1 percent were in fine arts. Approximately 17 percent of the respondents were enrolled in non-credit courses and 23 percent were not enrolled in a degree program (matriculated).

TABLE 2
SUMMARY OF DEMOGRAPHICS OF SAMPLE*

Item	Responses	
	No.**	Percent
1. Sex:		
Male	145	50.5
Female	138	48.1***
2. Age:		
TAS	174	60.6
NTAS	113	39.4
3. Age groups:		
18-22	174	60.6
23-28	53	18.5
29-34	17	5.9
35-43	27	9.4
44-55	10	3.5
56-64	6	2.1
65+	0	0.0
4. Marital status:		
Single	211	73.5
Married	66	23.0
Widowed, Divorced, Separated	10	3.5
5. Employment:		
Not employed	117	40.8
Employed part-time	114	39.7
Employed full-time	54	18.8
6. Continuous vs. reentry students:		
Continuous	161	56.1
Reentry	126	43.9
7. Non-credit students	238	82.9
8. Credit, non-degree students	42	14.6
9. Degree students	217	75.6
10. Undergraduate students	206	71.8
11. Graduate students	53	18.5
12. Number of credits:		
6 or fewer	49	17.1
7-12	44	15.3
13 or more	180	62.7

TABLE 2 (continued)

Item	Responses	
	No.**	Percent
13. Terms attended at University:		
First term	49	17.1
2-4 terms	69	24.0
5 or more terms	166	57.8
14. When attend classes:		
Day	179	62.4
Evening	44	15.3
Both day and evening	61	21.3
15. Major field of study:		
Business	128	44.6
Education	47	16.4
Liberal Arts	29	10.1
Fine Arts	4	1.4
16. Highest level of formal education:		
High school	32	11.1
Some college	176	61.3
Bachelor's degree	20	7.0
Bachelor's degree +	41	14.3
Master's degree	15	5.2
Doctoral degree	2	.7
17. Annual salary level:		
Under \$5,000	194	67.6
\$5,000-\$9,999	23	8.0
\$10,000-\$14,999	13	4.5
\$15,000-\$19,999	10	3.5
\$20,000-\$24,999	9	3.1
18. Task category:		
Leaving home	83	28.9
Reaching out	87	30.3
Questions	38	13.2
Midlife explosion	24	8.4
Settling down	16	5.6
Mellowing	6	2.1
Retirement	14	4.9

*From "Survey of Student Needs," collected for a study of the needs of adult university students at The University of Tennessee ("Needs of Adult University Students as Related to Adult Life Stages," 1984).

**Total responses = 287.

***Some respondents did not respond to all items or rounding errors may have caused percent totals to vary slightly from 100.

Note: Data for this study were collected at The University of Tennessee in 1981 and 1982.

Respondents indicated their highest level of formal education in Question 15, Section II of the Survey of Student Needs. Approximately 61 percent of the subjects had some college credit but no earned degree; 14.3 percent held Bachelor's degrees with some additional credits; 11.2 percent were high school graduates with no college credit; 6.9 percent held Bachelor's degrees only; 5.2 percent had earned Master's degrees and 0.7 percent (two respondents) had doctoral degrees. Salary levels ranged from under \$10,000 for 67 percent of the respondents to between \$30,000-\$35,000 for 1.4 percent of the sample. Thirty-one percent of the subjects resided in college dormitories and the remaining 69 percent lived in off-campus accommodations such as apartments, own house, rental house, or a room in a private home.

3. KRUSKAL-WALLIS TESTS: OBJECTIVE 2, COMPARISON OF CATEGORIES OF STUDENTS

Data were analyzed by computer for generation of H scores using the non-parametric Kruskal-Wallis one-way analysis of variance to provide H scores. Eight separate null hypotheses, along with sub-hypotheses, were tested. The hypotheses are as follows:

H₀ 1: There is no difference among the average H scores of the seven adult life stage task categories (ALSTC); therefore, the needs of students do not differ according to adult life stages (Kruskal-Wallis one-way analysis of variance).

- H₀ 1-A(1): There is no difference among the average H scores of female NTAS in respect to the ALSTC.
- H₀ 1-A(2): There is no difference among the average H scores of NTAS male respondents in the various ALSTC.
- H₀ 1-B(1): There is no difference among the average H scores of TAS females in respect to ALSTC.
- H₀ 1-B(2): There is no difference among the average H scores of TAS male respondents in the various ALSTC.
- H₀ 1-C: There is no difference among the average H scores of NTAS in respect to ALSTC.
- H₀ 1-D: There is no difference among the average H scores in relation to ALSTC.
- H₀ 2: There is no difference among the average H scores of men and women; therefore, the needs of male students do not differ significantly from those of female students.
- H₀ 3-A: There is no difference among the average H scores of TAS male respondents and TAS female respondents.
- H₀ 3-B: There is no difference among the average H scores of NTAS male students and NTAS female students.
- H₀ 4: There is no difference among the average H scores of students from the different age groupings (see Part II, Question 2, Survey of Student Needs, Appendix A).

H₀ 5: There is no difference among the average H scores of NTAS in various age groups.

H₀ 6-A: There is no difference among the average H scores of NTAS male students within various age groups (see Part II, Question 2, responses 2-7, Survey of Student Needs, Appendix A).

H₀ 6-B: There is no difference among the average H scores of NTAS female students within various age groups.

H₀ 7: There is no difference among the average H scores of TAS female students.

H₀ 8: There is no difference among the average H scores of NTAS female student response rates.

Discussions of results from application of Kruskal-Wallis tests are presented in separate sections ordered according to the eight null hypotheses. Group mean scores were compared. Because of the exploratory nature of this study a significance level of $p \leq .10$ was used.

Items that had significant between group H values were listed in each section. Questions and concomitant probability levels were presented according to the six item-facet memberships (see Table 1, page 76). Hence group differences were presented at both item and category levels. Figure 2 presents an outline of the ensuing discussion of the Kruskal-Wallis test results. Results are presented according to the six item-facets which include questions pertaining to specific areas of needs. For example, Facet 1, Academic Survival

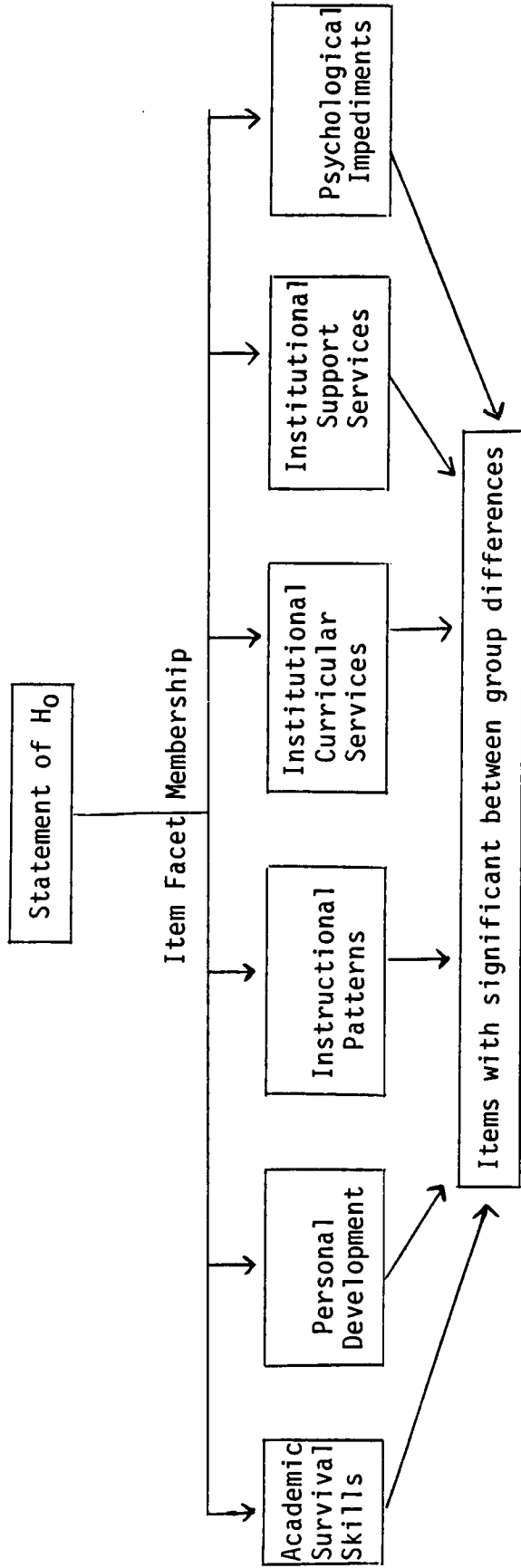


Figure 2. Outline of Section Discussing Kruskal-Wallis Test Results, Needs of Adult University Students as Related to Adult Life Stages, The University of Tennessee 1984.

Skills, contains six questions pertaining to skills needed to succeed academically, skills such as: remedial mathematics, reading, and report writing. The six item-facet categories with listings of items subsumed under each category are presented in Table 1, page 76.

Null Hypothesis 1: Total Sample vs. Adult Life Stage Categories (ALSTC)

There is no difference among the average H scores of the seven ALSTC; therefore, the needs of students do not differ according to adult life stages. Analysis involved comparison of task categories and item response rates for the entire sample (n=287).

Facet 1: Academic Survival Skills. No response in this category (n=7) proved to be significant.

Facet 2: Personal Development. Six of the 16 possible items were found to be significant (37.5 percent).

Facet 3: Psychological Impediments. Two items out of seven were found to register significant between-group differences (28.6 percent).

Facet 4: Institutional Support Services. Three out of 11 items displayed significant between group differences (27.3 percent).

Facet 5: Institutional Curricular Services. Four of the 10 items under this category were significant (40.0 percent).

Facet 6: Instructional Patterns. Out of 12 possible responses, five displayed significant between-group differences (41.7 percent).

The item-facet membership category with the greatest number of items displaying between-group differences was Personal Development.

This was followed by Instructional Patterns, Institutional Curricular Services, Institutional Support Services, and then Psychological Impediments. Academic Survival Skills had no significant items. Lack of between-group differences indicates a prevailing unanimity of response. Hence the total sample as a whole demonstrated greater concurrence in rating of items in the Academic Survival Skills category than in any of the other areas.

Table 3 presents the number and percent of items displaying significant between-group differences for each category.

Null Hypothesis 1-A(1): Female NTAS vs. ALSTC

H₀: There is no difference among the average H scores of female NTAS with respect to the seven adult life stage groups (n=60).

Computer analysis for this hypothesis involved analysis for variables 1-63 classified by ALSTC. The response rates of female NTAS as they related to task category (ALSTC) selection were the primary concern.

Facet 1: Academic Survival Skills. There were no items registering significant between-group differences (n=7).

Facet 2: Personal Development. Three out of 16 items demonstrated significant between-group differences (18.8 percent)

Facet 3: Psychological Impediments. Only one item out of seven was significant at the (14.3 percent)

Facet 4: Institutional Support Services. Out of a total of 11 items, three had significant H values (9.1 percent).

TABLE 3
THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 1:
UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) VS. ADULT LIFE STAGE TASK CATEGORIES*

Items with Significant Between Group Differences	Academic Survival Skills (N= 7)**	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Instit. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	0	6	2	3	4	5	20
Percent	0	37.5	28.6	27.7	40.0	41.7	31.7

*Adult life stage task categories, see Question 18, Section II, "Survey of Student Needs."

**N = Number of items per item-member facet.

Note: Data for this study were collected at the University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

Facet 5: Institutional Curricular Services. Two out of 10 items were found to have significant between-group differences.

Facet 6: Instructional Patterns. None of the 12 items subsumed under item-facet 6 showed significant between-group differences.

The greatest number of between-group differences occurred in the Personal Development and Institutional Support Services categories. The total number of items registering between-group test significance was 9. As with H_0 1, the Academic Survival Skills category had no items registering significant between group differences. For a synopsis of item-facet response rates in terms of items with significant between-group differences see Table 4.

Null Hypothesis 1-A(2): Male NTAS vs. ALSTC

H_0 : There is no difference among the average H scores of male NTAS with respect to the seven adult life stage task categories (ALSTC) ($n=53$).

Male NTAS responses analyzed for variables 1-63 classified by ALSTC were the concern of the analyses.

Facet 1: Academic Survival Skills. Only one item out of seven displayed significant between-group differences (14.3 percent).

Facet 2: Personal Development. Four out of 16 items were found to have significant between-group differences (25 percent)

Facet 3: Psychological Impediments. None of the items subsumed under this facet were significant.

TABLE 4

THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 1-A(1):
FEMALE NONTRADITIONAL AGED STUDENTS (23+) VS. ADULT LIFE STAGE TASK CATEGORIES*

Items with Significant Between Group Differences	Academic Survival Skills (N= 7)**	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Instit. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	0	3	1	3	2	0	9
Percent	0	18.8	14.3	27.3	20.0	0	14.3

*Adult life stage task categories, see Question 18, Section II, "Survey of Student Needs."

**N = Number of items per item-member facet.

Note: Data for this study were collected at the University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

Facet 4: Institutional Support Services. Three items out of 11 displayed significant between-group differences (27.3 percent).

Facet 5: Institutional Curricular Services. Three out of a possible 10 items had significant between-group H scores (30 percent)

Facet 6: Instructional Patterns. Out of 12 possible items, 7 were found to have significant between-group differences (58.3 percent).

Male NTAS had twice as many items with significant between-group differences as did the female NTAS (nine items for the female NTAS vs. 18 items for the male NTAS). The greatest difference between the male and female respondents occurred in Instructional Patterns category where female NTAS had no significant items and male NTAS had seven, or 58.3 percent. See Table 5 for a summary of the test results.

Null Hypothesis 1-B(1): Female TAS vs. ALSTC

H₀: There is no difference among the average H scores of TAS females with respect to adult life stage task categories (ALSTC) (n=82).

The analysis sought to determine whether the needs of TAS female subjects would vary according to ALSTC. Computer analysis was conducted for variables 1-63 classified by ALSTC for female TAS. classified by variable V81 ALSTC

Facet 1: Academic Survival Skills. Only one out of seven possible items was found to be significant in this item-facet membership (14.3 percent).

TABLE 5

THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 1-A(2):
MALE NONTRADITIONAL AGED STUDENTS (23+) VS. ADULT LIFE STAGE TASK CATEGORIES*

Items with Significant Between Group Differences	Academic Survival Skills (N=7)**	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Instit. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	1	4	0	3	3	7	18
Percent	14.3	25.0	0	30/0	30.0	58.3	28.6

*Adult life stage task categories, see Question 18, Section II, "Survey of Student Needs."

**N = Number of item per item-member facet.

Note: Data were collected for this study at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

Facet 2: Personal Development. Four items out of 16 in this category were significant (25 percent).

Facet 3: Psychological Impediments. Only one out of seven items was found to be significant (14.3 percent).

Facet 4: Institutional Support Services. Three items out of 11 were found to have significant between-group differences (27.3 percent).

Facet 5: Institutional Curricular Services. One item in 10 displayed significant between-group differences (10 percent).

Facet 6: Instructional Patterns. None of the 12 possible items posited under this item-facet demonstrated significant between-group differences.

The category with the greatest number of responses registering significant between-group differences for female TAS was Personal Development (four responses). Females within the entire sample seemed to have fairly consistent rates of significantly different items, e.g., female TAS rates as classified with task categories (ALSTC) were very similar to the response rates of the NTAS females (a total of nine significant items for the NTAS vs. 10 for the TAS group). For a summary of the results see Table 6.

Null Hypothesis 1-B(2): Male TAS vs. Task Categories

H₀: There is no difference among the average H scores of TAS male respondents in the various adult life stage task groups (ALSTC) (n=91).

TABLE 6

THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 1-B(1):
FEMALE TRADITIONAL AGED STUDENTS (18-22) VS. ADULT LIFE STAGE TASK CATEGORIES*

Items with Significant Between Group Differences	Academic Survival Skills (N=7)**	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Instit. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=10)
Frequency	1	4	1	3	1	0	10
Percent	14.3	25.0	14.3	27.3	10.0	0	14.3

*Adult life stage task categories, see Question 18, Section II, "Survey of Student Needs."

**N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

Analysis was conducted for items 1-63 classified by ALSTC for male TAS.

Facet 1: Academic Survival Skills. None of the seven items under this facet displayed significant between-group differences.

Facet 2: Personal Development. This item-facet category, like category 1, contained no items which displayed significant between-group differences. The facet has a total of 16 items.

Facet 3: Psychological Impediments. Two items out of seven under this category were significant (28.6 percent).

Facet 4: Institutional Support Services. Out of 11 items, 2 were found to have significant between-group differences (18.2 percent).

Facet 5: Institutional Curricular Services. One item out of ten displayed significant between-group differences (10 percent).

Facet 6: Instructional Patterns. Of 12 items listed under this heading only one was significant (8.3 percent).

Male TAS responses under this category were highest in the Institutional Support Services item-facet domain and in Psychological Impediments area (two items per category with significant between-group differences). Percents were 18.1 and 28.6, respectively.

Male TAS responses were considerably lower in terms of items registering significant test results than NTAS male scores (nine for the TAS males and 18 for the NTAS males). For a summary of the results, see Table 7.

TABLE 7

THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 1-B(2):
MALE TRADITIONAL AGED STUDENTS (18-22) VS. ADULT LIFE STAGE TASK CATEGORIES*

Items with Significant Between Group Differences	Academic Survival Skills (N=7)	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Instit. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	0	0	2	2	1	1	6
Percent	0	0	28.6	18.1	10.0	8.3	9.5

*Adult life stage task categories, see Question 18, Section II, "Survey of Student Needs."

**N = Number of items per item-member facet.

Note: The data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

Null Hypothesis 1-C: NTAS vs. ALSTC

H₀: There is no difference among the average H scores of NTAS in respect to the seven adult life stage task categories (ALSTC) (n=113).

NTAS response rates on items 1-63 were analyzed for variances which might be attributable to ALSTC selection.

Facet 1: Academic Survival Skills. None of the seven items under this category were found to have significant between-group differences.

Facet 2: Personal Development. Four of the 16 items were found to have significant between-group differences (25 percent).

Facet 3: Psychological Impediments. Of the seven available items, two were significant (28.6 percent).

Facet 4: Institutional Support Services. Three items out of 11 displayed significant H scores (27.3 percent).

Facet 5: Institutional Curricular Services. Four out of 10 items displayed significant between-group differences in response means (40 percent).

Facet 6: Instructional Patterns. One item out of 12 was significant, registering between-group differences (8.3 percent).

The item-facets with the largest number of items with significant between-group differences were, Personal Development and Institutional Curricular Services. Item facet areas with few items with significant between-group H scores were, Academic Survival

Skills and Instructional Patterns. For a summary of items with significant between-group differences see Table 8.

Null Hypothesis 1-D: TAS vs. ALSTC

H₀: There is no difference among the average H scores of TAS in relation to the seven adult life stage task categories (ALSTC).

The purpose of conducting this particular analysis procedure is to determine the relationship of ALSTC selection to response rates in Questions 1-63 for all TAS (n=173).

Facet 1: Academic Survival Skills. None of the seven items was found to differ significantly.

Facet 2: Personal Development. Only one of 16 items in this facet was found to be significant (6.3 percent)

Facet 3: Psychological Impediments. Out of 7 possible items, only one registered significant between-group differences (14.3 percent).

Facet 4: Institutional Support Services. One item out of 10 displayed significant between-group differences (10 percent).

Facet 5: Institutional Curricular Services. Of the 11 possible items, one was significant (9.1 percent).

Facet 6: Instructional Patterns. One item out of 12 had a significant H score (8.3 percent).

Table 9 presents a summary of items with significant between-group H scores. Only one item-facet category, Institutional Curricular Services, had over 10 percent of the items registering significant

TABLE 8

THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 1-C:
TOTAL NUMBER OF NONTRADITIONAL AGED STUDENTS (23+) VS. ADULT LIFE STAGE TASK CATEGORIES*

Items with Significant Between Group Differences	Academic Survival Skills (N=7)	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Instit. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	0	4	2	3	4	1	14
Percent	0	25.0	28.6	27.3	40.0	8/3	22.2

*Adult life stage task categories, see Question 18, Section II, "Survey of Student Needs."

**N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 9
THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 1-D:
TOTAL NUMBER OF TRADITIONAL AGED STUDENTS (18-22) VS. ADULT LIFE STAGE TASK CATEGORIES*

Items with Significant Between- Group Differences	Academic Survival Skills (N=7)**	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Instit. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	0	1	1	1	2	1	6
Percent	0	6.3	14.3	9.0	20.0	8.3	9.6

*Adult life stage task categories, see Question 18, Section II, "Survey of Student Needs."

**N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

between-group H scores. The TAS over the ALSTC displayed a high degree of cohesiveness and lack of diversity in their response ratings relative to ALSTC.

Null Hypotheses 1-C and 1-D: NTAS vs. ALSTC and TAS vs. ALSTC, Compared

As a group, the NTAS respondents demonstrated more diversity in response rates over adult life stage task categories (ALSTC) than did the TAS group. The NTAS had over twice as many items with between-group differences (NTAS 14 vs. TAS 6). This indicates greater cohesiveness and response concurrence on the part of the TAS group than by the NTAS group. The largest number of items displaying differences were in the Personal Development category.

Null Hypothesis 2: Male vs. Female

H₀: There is no difference among the average H scores of men and women; therefore, the needs of male students do not differ significantly from those of female students (n=283).

Analysis of this hypothesis involved comparison of the mean responses of male (n=145) subjects to female (n=138) subjects cross-tabulated with item variables 1-63.

Facet 1: Academic Survival Skills. Three out of seven items under the Academic Survival Skills facet were significant (42.9 percent).

Facet 2: Personal Development. Sixteen questions are posited under the Personal Development category. Of the 16 questions, six demonstrated significant between-group differences (37.5 percent).

Facet 3: Psychological Impediments. All seven of the questions under this heading displayed significant between group differences between male and female respondents (100 percent).

Facet 4: Institutional Support Services. Response rates to four of the 11 questions belonging to this category showed significant between-group differences between males and females (15.9 percent).

Facet 5: Institutional Curricular Services. Of the 10 questions posited under this category, none displayed significant between-group differences.

Facet 6: Instructional Patterns. This facet category includes 12 questions. Of the 12, only three displayed significant between group differences between male and female respondents (25 percent).

The male-female comparisons yielded one of the larger group differences in response rates. Large numbers of reported items with significant differences indicate considerable divergence in response rates, whereas greater cohesiveness is evident when fewer items with significant differences are reported. The large number of items with significant between-group differences ($n=23$, 36.5 percent) supports rejection of the null hypothesis on a general level, hence acknowledging differing response rates between males and females. The item-facet categories with the highest percent of items with significant between group H scores were, Psychological Impediments

(100 percent), Academic Survival Skills (50 percent) Personal Development (37.5 percent), and Institutional Support Services (36.3 percent). For a summary of items with significant between-group H scores see Table 10.

Null Hypothesis 3-A: NTAS Male vs. NTAS Female

H₀: There is no difference among the average H scores of nontraditional male students and nontraditional female students.

This hypothesis involved the following analysis: variables or items 1-63 classified by sex, cross-tabulated with NTAS (age-cross-tabulated with NTAS (age categories 2-7, Question 2, Section II of "Survey of Student Needs," Appendix A). Responses were tested for significant between-group differences between NTAS males (n=53) and NTAS females (n=60).

Facet 1: Academic Survival Skills. Two out of seven items in this facet displayed significant between-group differences (28.6 percent).

Facet 2: Personal Development. Of the 16 questions listed under this item-facet membership, seven were found to have significant between-group differences (43.8 percent).

Facet 3: Psychological Impediments. Of the seven items posited under this category, six displayed significant between-group differences between NTAS male and NTAS female response rates (85.7 percent).

Facet 4: Institutional Support Services. Response rates to

TABLE 10
THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 2:
MALE VS. FEMALE

Items with Significant Between- Group Differences	Academic Survival Skills (N=7) *	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Instit. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	3	6	7	4	0	3	23
Percent	42.9	37.5	100.0	36.3	0	25.0	36.5

*N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

two items out of 11 were found to have significant between-group differences (18.2 percent).

Facet 5: Institutional Curricular Services. This category had no items indicating significant between-group differences. There were 10 items under this facet.

Facet 6. Instructional Patterns. None of the 12 items under this category was found to have significant between-group differences. Male NTAS and female NTAS responses in this area of instructional patterns were similar.

The largest number of items with significant between-group differences occurred in the Psychological Impediments facet (85.7 percent). This indicated that the greatest degree of response diversity between NTAS males and NTAS females occurred in the area of Psychological Impediments. Other facet areas displaying diversity were: Personal Development (43.8 percent) and Academic Survival Skills (33.3 percent). Two facet categories, Instructional Patterns and Institutional Curricular Services, had no items displaying significant between-group differences. For a summary of items with significant between-group H scores, see Table 11.

Null Hypothesis 3-B: TAS Male (n=82) vs. TAS Female (n=91)

H₀: There is no difference among the average H scores of traditional male students and traditional female students.

Analysis for Hypothesis 3 involved the following variables: items 1-63 classified by sex, involving data sets pertaining to TAS or response 1 to Question 1 in Section II of the "Survey of

TABLE 11

THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 3(A):
MALE NONTRADITIONAL AGED STUDENTS (23+) VS. FEMALE NONTRADITIONAL AGED STUDENTS (23+)

Items with Significant Between- Group Significance	Academic Survival Skills (N=7)*	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Instit. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	2	7	6	2	0	0	17
Percent	28.6	43.8	85.7	18.0	0	0	27.0

*N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

Student Needs" questionnaire (see Appendix A for the "Survey of Student Needs").

Facet 1: Academic Survival Skills. One question out of seven in this facet category was found to have a significant between-group difference between male TAS and female TAS (14.3 percent).

Facet 2: Personal Development. Only responses to one item out of 16 were significant (6.3 percent).

Facet 3: Psychological Impediments. Response rates of male TAS and female TAS differed significantly in two out of seven possible items (28.6 percent)

Facet 4: Institutional Support Services. None of the 11 items under this category displayed significant between-group differences.

Facet 5: Institutional Curricular Services. Out of a total of 10 items, only one displayed significant between-group mean differences (10 percent).

Facet 6: Instructional Patterns. Three questions out of 12 registered significant between-group differences between male TAS and female TAS response rates (25 percent).

Male TAS and female TAS response rates displayed a high degree of unanimity. Only 12.7 percent of the 63 items had H scores with significant between-group differences. The relatively few number with between-group differences indicated that male and female response rates were similar and, hence, the needs of TAS males and females do not differ greatly. See Table 12 for a summary of male TAS and female TAS response rates.

TABLE 12

THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 3-B:
MALE TRADITIONAL AGED STUDENTS (18-22) VS. FEMALE TRADITIONAL AGED STUDENTS (18-22)

Items with Significant Between- Group Differences	Academic Survival Skills (N=7)*	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Instit. Curric. Services (N=10)	Instr. Patterns (N=12)	Total Total (N=63)
Frequency	1	1	2	0	0	3	8
Percent	14.3	6.3	28.6	0	0	25.0	12.7

*N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

Null Hypothesis 3-A and 3-B: NTAS Male vs. NTAS Female and
TAS Male vs. TAS Female

The NTAS groups demonstrated greater response diversity than did the TAS groups. The responses of male NTAS (n=53) were compared to the response rates of females (n=60) and 17 items were found to have significant between-group differences. This is nearly double the rate when compared to the 8 significant items for the TAS male vs. TAS female group. (This finding is very similar to other male/female differences in responses obtained in this study.)

Null Hypothesis 4: Total Sample vs. Age Categories

H₀: There is no difference among the average H scores of students (n=287) from the different age groupings (see Part II, Question 2, "Survey of Student Needs," Appendix A).

Data were analyzed to determine whether significant differences occurred between response rates of students in relation to specified age categories. The purpose was to ascertain if educational needs vary according to age. Analysis consisted of items or variables 1-63 classified by age categories (see Appendix A, "Survey of Student Needs.")

Facet 1: Academic Survival Skills. Three items out of seven under this item-facet membership category were significant (42.9 percent).

Facet 2: Personal Development. Response rates to 13 out of 16 possible items were significant (81.3 percent).

Facet 3: Psychological Impediments. Four items out of seven within this item-facet category were found to have significant between-group differences (57.1 percent).

Facet 4: Institutional Support Services. Out of a possible 11 items, 10 were adjudged to be significant (90.9 percent).

Facet 5: Institutional Curricular Services. There were 8 out of 10 items with significant between-group differences (80 percent).

Facet 6: Instructional Patterns. Nine items out of 12 within this group displayed significant between-group differences (75 percent).

Among all analyses in this study, the greatest number of items with between-group differences occurred in this grouping. The preponderance of items with significant differences at $p \leq 0.10$ indicates a greater divergence in terms of needs between the age groups. Hence, the test results support the main thesis of the study that anticipated variance in student needs over the life line. The areas of greatest divergence were Institutional Support Services (90.9 percent), Personal Development (81.3 percent), and Institutional Curricular Services (80 percent). See Table 13 for a summary of results.

Null Hypothesis 5: NTAS as Related to Age Categories

H₀: There is no difference among the average H scores of NTAS (n=113) in various age groups.

This area of the study tests for within-group differences between response rates of NTAS as they relate to age categories (see Appendix A, "Survey of Student Needs," Section II, Question 2, responses 2-7). Computer analysis involved manipulation of the following variables, items 1-63 classified by seven age categories, and cross-tabulated with NTAS, hence

TABLE 13
THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 4:
TOTAL NUMBER UNIVERSITY OF TENNESSEE STUDENTS VS. AGE CATEGORIES

Items with Significant Between- Group Differences	Academic Survival Skills (N=7)*	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Inst. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	3	13	4	10	8	9	47
Percent	42.9	81.3	57.1	90.9	80.0	75.0	75.0

*N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

limiting selection of age category responses to responses 2-7 only (use of NTAS excludes response 1 from the age categories).

Facet 1: Academic Survival Skills. Response rates to one question out of seven displayed significant between-group differences (14.3 percent).

Facet 2: Personal Development. Six items out of 16 displayed significant between-group differences (37.5 percent).

Facet 3: Psychological Impediments. This category had two items out of seven which displayed significant between-group differences (28.6 percent).

Facet 4: Institutional Support Services. Response rates to four out of 11 items were significant (36.4 percent).

Facet 5: Institutional Curricular Services. Of the 10 items under this category, four displayed significant between-group differences in respect to response levels of NTAS students distributed across the various age groups (40 percent).

Facet 6: Instructional Patterns. Response rates to only one item out of 12 in this category displayed significant between-group differences (8.3 percent).

NTAS responses as they relate to age categories displayed 18 (28.7 percent) items with between-group differences. This result is compared to 22.2 percent in the NTAS vs. task category section (H₀ 1-C). A summary of the test results in NTAS group as it relates to age categories and to task category selection is presented in Table 14. The great similarity of the

TABLE 14

THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 5:
TOTAL NUMBER OF NONTRADITIONAL AGED STUDENTS (23+) VS. AGE CATEGORIES

Items with Significant Between- Group Differences	Academic Survival Skills (N=7) *	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Inst. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	1	6	2	4	4	1	18
Percent	14.3	37.5	28.6	36.4	40.0	8.3	29.0

*N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

results of the two sections suggests a stability of response rates between the two variables, task categories and age categories.

As stated earlier, it was anticipated that there would be concurrence between task and age response ratings. Such consistency is supportive of the McCoy model (1978). In order to support the McCoy model, the response rates for task and age should follow approximately the same pattern, increasing and decreasing at similar rates.

Null Hypothesis 6-A: NTAS Males vs. Age Categories

H₀: There is no difference among the average H scores of non-traditional male students within various age groups (see Part II, Question 2, responses 2-7, Survey of Student Needs, Appendix A).

The response rates of NTAS males (n=53) were compared with the age category variable to determine whether between-group differences occurred. Computer analysis involved analysis of variables or items 1-63 classified by the seven age categories minus category 1 due to use of the NTAS descriptor (NTAS was defined as responses 2-7, Question II, Part II, Survey of Student Needs, Appendix A).

Facet 1: Academic Survival Skills. Response rates to four of seven items proved to be significant (57.1 percent).

Facet 2: Personal Development. This section contained 16 items, eight of which displayed significant between-group differences (50 percent).

Facet 3: Psychological Impediments. Two out of seven items subsumed under this facet displayed significant between-group H scores (28.6 percent).

Facet 4: Institutional Support Services. This category had 11 items, two of which displayed significant between-group H scores (18.1 percent).

Facet 5: Institutional Curricular Services. Four out of ten items under this item-facet had significant between-group H scores (40 percent).

Facet 6: Instructional Patterns. Three out of 12 items had significant between-group H scores (25 percent).

Male NTAS respondents displayed a high degree of diversity over the age categories (23 of 63 items, or 36.5 percent). The areas with the greatest percent of items displaying a significant between-group differences were: Academic Survival Skills, Personal Development, and Institutional Curricular Services. Table 15 summarizes the results. No facet category had less than 18 percent of the items with significant between-group H scores. Male NTAS needs vary considerably across the various age categories.

Null Hypothesis 6-B: NTAS Female vs. Age Categories

H₀: There is no difference among the average H scores of nontraditional female students within various age groups.

Response rates of NTAS females (n=60) were scrutinized for significant between-group differences as related to age categories.

TABLE 15
THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 6-A:
MALE NONTRADITIONAL AGED STUDENTS (23+) VS. AGE CATEGORIES

Items with Significant Between- Group Differences	Academic Survival Skills (N=7)*	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Inst. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	4	8	2	2	4	3	23
Percent	57.1	50.0	28.6	18.0	40.0	25.0	36.5

*N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

Analysis involved variables 1-63 classified by age categories and also classified by the variable sex, female.

Facet 1: Academic Survival Skills. None of the seven items in this category registered significant between-group differences.

Facet 2: Personal Development. Four items out of 16 displayed significant between-group differences (25 percent).

Facet 3: Psychological Impediments. Response rates to only one item out of 16 displayed significant between-group differences (6.3 percent).

Facet 4: Institutional Support Services. Of the 11 items posited in this category, only two demonstrated significant between-group differences (18.2 percent).

Facet 5: Institutional Curricular Services. Two items out of 16 had significant between-group differences (12.5 percent).

Facet 6: Instructional Patterns. None of the 12 items listed under this category was significant

Only 9, or 14.3 percent, of the 63 possible items had significant between-group H scores. The item-facet with the largest number of items displaying significant H scores was Personal Development (25 percent). The low number of items with significant H scores indicated unanimity of response rates. Hence, NTAS females expressed similar needs across the various age categories. See Table 16 for a summary of the results.

Null Hypothesis 7: TAS Female (Within Group Differences)

H₀: There is no difference among the average H scores of TAS female students (n=82).

TABLE 16

THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 6-B:
FEMALE NONTRADITIONAL AGED STUDENTS (23+) VS. AGE CATEGORIES

Items with Significant Between- Group Differences	Academic Survival Skills (N=7)*	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Inst. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	0	4	1	2	2	0	9
Percent	0	25.0	14.3	18.0	20.0	0	14.3

*N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

This hypothesis sought to determine whether within-group differences would occur between TAS female respondents. The purpose was to ascertain the degree of difference within the group in terms of perceived needs across age groups. Responses to items 1-63 were cross-tabulated with sex (female) and age group response, level one.

Facet 1: Academic Survival Skills. Two out of seven items were found to have significant between-group differences (28.6 percent).

Facet 2: Personal Development. Response rates to only one item out of 16 displayed significant between-group differences (6.3 percent).

Facet 3: Psychological Impediments. Two out of seven items displayed significant between-group differences (28.6 percent).

Facet 4: Institutional Support Services. None of the 11 items under this category demonstrated significant differences in the response rates of female TAS.

Facet 5: Institutional Curricular Services. Out of 10 possible items none had significant between-group scores.

Facet 6: Instructional Patterns. None of the 12 questions under this heading registered significant differences between groups.

Only three of the six item-facet categories had items with significant between-group H scores. The three facets were: Academic Survival Skills, Personal Development, and Psychological Impediments. The total number of items with significant between-group H scores was very small, only 7.9 percent (n=5) of the total number of items (n=63). Such a low number indicates a high rate of cohesiveness and great within group stability. See Table 17 for a summary of test results pertaining to this hypothesis.

TABLE 17

THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 7:
FEMALE TRADITIONAL AGED STUDENTS (18-22)

Items with Significant Between- Group Differences	Academic Survival Skills (N=7)*	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Inst. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	2	1	2	0	0	0	5
Percent	28.6	6.3	28.6	0	0	0	7.9

*N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

Null Hypothesis 8: NTAS Female (Within Group Differences)

H_0 : There is no difference among the average H scores of NTAS female student response rates.

This hypothesis sought to determine the degree of within group differences with respect to the response rates of female NTAS (n=60). Analysis involved the following responses to items 1-63 classified by sex, female, cross-tabulated with age classification response rates 2-17 (Question 2, Section II, Survey of Student Needs, Appendix A). Only two facet categories had items that were significant. The facet categories with the significant items are as follows:

Personal Development (one item) and Psychological Impediments (one item). See Table 18 for summary of test results.

4. SUMMARY: KRUSKAL-WALLIS

Results of the Kruskal-Wallis tests are presented in order of the null hypotheses and sub-hypotheses. Each discussion is accompanied by tables summarizing test results. These table summaries are presented as matrices. Cells within these matrices contain numerical figures indicating the number of items that were significant at $\alpha \leq 0.10$. Hypotheses for the Kruskal-Wallis tests postulate homogeneity of response levels, hence respondent needs (as measured by the survey) were said to be similar. Significant H scores indicated that the "value of the statistic used to test" the hypothesis "lies outside acceptable limits, that is to say, if the

TABLE 18

THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY FOR NULL HYPOTHESIS 8:
FEMALE NONTRADITIONAL AGED STUDENTS (23+)

Items with Significant Between- Group Differences	Academic Survival Skills (N=7)*	Personal Develop- ment (N=16)	Psycho- logical Impediments (N=7)	Instit. Support Services (N=11)	Inst. Curric. Services (N=10)	Instr. Patterns (N=12)	Total (N=63)
Frequency	0	1	1	0	0	0	2
Percent	0	6.3	14.3	0	0	0	3.2

*N = Number of items per item-member facet.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

hypothesis that the effect is not present is rejected" (Kendall, 1960: 265). Rejection of the null hypothesis in this case constitutes rejection of the notion of group equivalency. That is, if an item was significant at $\alpha \leq 0.10$ the null hypothesis was rejected and student needs were adjudged to be dissimilar and disparate (in respect to the particular item tested). Table 19 presents the null hypotheses according to the number of items (and percent tabulations) with significant between-group differences. The highest percentage of items displaying significant H scores pertained to H₀ 4. The large number of significant items indicated that group needs do differ according to age groupings, and that 75 percent of the needs measured by the survey had significant differences with respect to subject response rates. The group demonstrating the greatest degree of response agreement was the NTAS female group. Only 3.2 percent of the responses were different in terms of between-group levels. Male NTAS and female NTAS respondents demonstrated considerable divergence in response rates. This was supported by the higher number of items displaying between-group differences (27 percent: H₀ 3-A, Male NTAS vs. Female NTAS). Male NTAS response rates registered considerable within-group divergence, a thesis which was supported by the results of tests performed on null hypotheses 1-A, 3-A, and 6-A. The test results of mean response rates of male TAS and female TAS demonstrated greater unanimity of test results, as compared to the NTAS male/female analysis (see H₀ 1-A, 1-B, 1-D, H₀ 3, and H₀ 7).

TABLE 19
COMPARISON OF THE NUMBER OF SIGNIFICANT ITEMS PER ITEM-FACET MEMBERSHIP CATEGORY AS RELATED TO THE EIGHT NULL HYPOTHESES AND THE SIX SUB-HYPOTHESES

Null Hypotheses and Sub-hypotheses	Item-Facet Membership Categories																		
	Academic Survival Skills (N=7)			Personal Development (N=16)			Psychological Impediments (N=7)			Institutional Support Services (N=11)			Institutional Curricular Services (N=10)			Instructional Patterns (N=12)			Total (N=63)
	No.	%	No.	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
H ₀ 1: Task categories vs. ESs	0	0.0	6	37.5	2	28.6	3	27.3	4	40.0	5	41.6	20	31.7					
H ₀ 1-A(1):Female NTAS vs. ALSTC (N=60)	0	0.0	3	18.8	1	14.3	3	27.3	2	20.0	0	0.0	9	14.3					
H ₀ 1-A(2):Male NTAS vs. ALSTC (N=53)	1	14.9	4	25.0	0	0.0	3	27.3	3	30.0	7	58.3	18	28.6					
H ₀ 1-B(1):Female TAS vs. ALSTC (N=82)	1	14.9	4	25.0	1	14.3	3	27.3	1	10.0	0	0.0	10	15.9					
H ₀ 1-B(2):Male TAS vs. ALSTC (N=91)	0	0.0	0	0.0	2	28.6	2	18.1	1	10.0	1	8.3	6	9.6					
H ₀ 1-C: ESs NTAS vs. ALSTC (N=113)	0	0.0	4	25.0	2	28.6	3	27.3	4	40.0	1	8.3	14	22.2					
H ₀ 1-D: ESs TAS vs. ALSTC (N=173)	0	0.0	1	6.3	1	14.3	1	9.0	2	20.0	1	8.3	6	9.6					
H ₀ 2: Male vs. Female (N=287)	3	42.9	6	37.5	7	100.0	4	36.3	0	0.0	3	25.0	23	36.5					
H ₀ 3-A: NTAS Male vs. NTAS Female (N=113)	2	28.6	7	43.8	6	85.7	2	18.0	0	0.0	0	0.0	17	27.0					
H ₀ 3-B: TAS Male vs. TAS Female (N=173)	1	14.9	1	6.3	2	28.6	0	0.0	1	10.0	3	25.0	8	12.7					
H ₀ 4: ESs vs. Age Category (N=287)	3	42.9	13	81.3	4	57.2	10	90.9	8	80.0	9	75.0	47	75.0					
H ₀ 5: NTAS vs. Age Category (N=113)	1	14.9	6	37.5	2	28.6	4	36.4	4	40.0	1	8.3	18	28.6					
H ₀ 6-A: NTAS Male vs. Age Category (N=53)	4	57.1	8	50.0	2	28.6	2	18.0	4	40.0	3	25.0	23	36.5					
H ₀ 6-B: NTAS Female vs. Age Category (N=60)	0	0.0	4	25.0	1	14.3	2	18.0	2	20.0	0	0.0	9	14.3					
H ₀ 7: TAS Female (N=82)	2	28.6	1	6.3	2	28.6	0	0.0	0	0.0	0	0.0	5	7.4					
H ₀ 8: NTAS Female (N=60)	0	0.0	1	6.3	1	14.3	0	0.0	0	0.0	0	0.0	2	3.2					
Totals	18		69		36		42		36		33		234						

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

5. TAXONOMY OF STUDENTS NEEDS: OBJECTIVE 3,
IDENTIFICATION AND CATEGORIZATION OF THE
PERCEIVED NEEDS OF NONTRADITIONAL AGED
STUDENTS AND THE TOTAL SAMPLE

Results obtained from measures of central tendency, computation of group means and mode, were used to construct a Taxonomy of Needs for nontraditional aged students (NTAS: n=113) and for the entire sample (n=287). Mean and mode were selected as principal measures of central tendency because the response categories used in the survey were adjudged to be at least ordinal measurements. Response categories were ordered on a continuum from low importance to high importance (response 1 = Of No Importance, response 5 = Very High Importance). Mode was used as a measure for the ordinal aspects of the data. According to Ferguson (1971:44-45) "median and mode are sometimes viewed as appropriate measures for ordinal and nominal variables," hence the present reliance upon mode as one of the measures of central tendency. Mean was also used because the five-point scale used in the survey was likewise adjudged to be a better-than-ordinal measure. Measurement of psychological phenomena is difficult and often lacking the precision inherent in the physical sciences. Fruchter and Guilford (1978) addressed the issue of measurement of psychological phenomenon. According to Fruchter and Guilford:

Most measurements in the behavioral sciences can not possess the advantages of physical scales. Typical measurements in testing and in laboratory experiments, as in studies of learning, memory, or thinking, are in terms of number of correct answers or responses. Although it is rarely known whether the units of such scales are equal, it is generally assumed that they approach equality (1978:24).

The formats for the taxonomies were inspired by research conducted by Mangano and Corrado and a portion of the discussion concerning the steps taken to formulate the Taxonomies was taken directly from the 1978 article. Some of the phraseology is exactly that used by Mangano and Corrado and such portions are presented in passim. The taxonomies involved three levels of needs ranking within six item-member facets (see Table 1, page 76, for a listing of item-member facets) across the seven task-categories.* Taxonomies were constructed as follows:

1. The 62 items from Section One were ranked according to mean, median, mode and Standard Deviation, and cross tabulated with task categories.
2. The top 25 percent (16 items) and the bottom 25 percent (16 items) of the ranked order were designated as "First Order and Third Order," respectively. The remaining 31 (middle) items were labeled "second Order." Hence, "priority items, high and low, were differentiated from those which clustered around the midpoint of the overall survey."

*Item 38 of the "Survey of Student Needs" will be omitted in the Taxonomies (item 41 is the same as 38). Each group of three taxonomies (top 25 percent, middle 50 percent, bottom 25 percent) will have 62 items instead of the 63 used in other sections of the study.

3. "All items were placed under their appropriate facets and the facets were placed into two domains, 'Learner' and 'Provider.' The 'Learner' domain included the following facets: Academic Survival Skills, Personal Development" and Psychological Impediments. "Institutional Curricular Services, Institutional Support Services, and Instructional Patterns were the three facets subsumed under the 'Provider' domain."
4. Items were ranked within facets and displayed in the matrix-format similar to that developed by Mangano and Corrado (1978:18).

One of the major purposes of this study was to determine whether student needs vary according to adult life-stages. ✓

Taxonomies were constructed in such a way as to display response rates as they related to Adult Life Stage Task Category (ALSTC) selection. ALSTC represented, for the most part, sociological/psychological aspects of adult development. These tasks (ALSTC) were postulated by McCoy (1978) and based upon Havighurst/Gould models. Respondents were grouped according to life stages which were defined by ALSTC selection. Hence subjects choosing the same task category (ALSTC) were grouped together. Mean responses to variables 1-62 (Section I, Survey of Student Needs, Appendix A) were ranked, along with the corresponding measure of mode. Separate Taxonomies were presented for every ALSTC (a total of seven task categories) and are represented in Tables 20-40 (for NTAS and Tables 41-61 (for all subjects (N=287).

TABLE 20

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 1* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	7	8. Improving my study skills	4.13	5
Personal Development	4	44. Getting "A's" and "B's" in my courses	4.42	5
	9	19. Encouragement from my family	4.04	4
	10	7. Learning to organize my time better	4.00	5
	14	52. Improving my motivation for college work	3.92	4
	16	24. Improving my concentration	3.79	4
Psychological Impediments			0.0	0
<u>Provider</u>				
Institutional Support Services	1	22. Speedy registration procedures	4.67	5
	2	6. Preregistration	4.58	5
	11	18. Being able to get occupational counseling	4.00	4
Institutional Curricular Services	3	20. Courses providing specific skills that will be useful on a job	4.54	5
Instructional Patterns	5	4. Instructors who are personally interested in my progress	4.38	4
	6	13. Instructors who have a realistic view of my responsibilities outside class	4.22	4
	8	36. Instructors who are relaxed and informal in the classroom	4.08	4
	12	28. Instructors who use many examples in their teaching	4.00	4
	13	33. Instructors who modify the course outline to satisfy student interests	3.92	4
	15	49. Encouragement from my instructors	3.88	4

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority items, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 21

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 1* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	18	27. Improving my note-taking skills	3.79	4
	23	56. Improving my reading skills	3.62	3
	29	39. Learning to give better oral reports	3.50	4
	31	38. Improving my writing skills	3.45	3
	37	16. Learning to prepare better term papers	3.29	4
	39	48. Improving my vocabulary skills	3.25	3
Personal Development	26	26. "Fitting in" with other students	3.52	3
	28	51. Learning to set better goals for myself	3.50	3
	30	21. Working with other students on class projects	3.45	3
	32	11. Studying with other students	3.45	4
	36	29. Learning to cope with failure	3.33	4
	38	35. A place to study at home	3.25	4
	40	34. Improving my social interactions with other students	3.16	4
Psychological Impediments	43	42. "Keeping up" with other students in class	3.12	3
	35	63. Loss of contact with old friends	3.41	4
<u>Provider</u>				
Institutional Support Services	19	1. A place to study on campus	3.78	5
	21	31. Extracurricular activities	3.69	4
	24	25. Financial aid	3.62	3
	44	17. Tutoring services	3.12	3
Institutional Curricular Services	20	23. Being able to obtain credit for out-of-college experiences	3.75	4
	25	14. Being able to take a variety of courses before deciding on a major	3.52	3
	27	10. Being able to drop a course at any time without receiving a penalty	3.50	4
	41	3. Being able to take a course as an independent study	3.16	3
	46	12. Being able to take a course with "pass-fail" grading instead of "A to F" grading	3.00	3
Instructional Patterns	17	30. Instructors who provide more than one way to meet course requirements	3.79	4
	22	32. Being able to take "re-tests" to improve my grade	3.69	4
	33	5. The use of films, tapes, and other audio-visual materials in a course	3.45	3
	34	46. Courses with many class discussions	3.41	3
	42	55. Instructors who follow the course outline very closely	3.16	4
	45	45. Instructors who let students decide what should be covered in a course	3.04	3

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall survey.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 22

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 1* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.0	0
Personal Development	52	54. Students my own age in my classes	2.70	3
	55	53. Reducing my uneasiness about going to college	2.54	3
Psychological Impediments	48	62. Lack of time for home responsibilities	3.00	3
	53	61. Lack of acceptance by students and co-workers	2.66	3
	56	58. Family feeling neglected	2.41	3
	57	59. Fear of appearing unintelligent	2.41	2
	58	60. Disapproval by significant others	2.41	3
	59	57. Fear of appearing awkward	3.27	1
<u>Provider</u>				
Institutional Support Services	49	37. Evening and weekend registration	2.95	3
	50	2 Bus service to the campus	2.87	2
	54	15 A campus tour during my first semester	2.56	1
	61	47. Child care facilities on campus	1.54	1
Institutional Curricular Services	47	50. Summer classes	3.00	3
	51	9. Evening classes	2.79	2
	60	43. Off-campus courses	2.04	3
	62	40. Weekend classes	1.62	1
Instructional Patterns			0.0	0

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 23
NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
CATEGORY NO. 2* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	4	8. Improving my study skills	4.41	5
Personal Development	1	44. Getting "A's" and "B's" in my courses	4.70	5
	5	7. Learning to organize my time better	4.37	5
	9	52. Improving my motivation for college work	4.30	4
	16	24. Improving my concentration	4.06	4
Psychological Impediments			0.0	0
<u>Provider</u>				
Institutional Support Services	6	6. Preregistration	4.33	5
	10	22. Speedy registration procedures	4.28	5
	11	31. Extracurricular activities	4.23	5
	12	18. Being able to get occupational counseling	4.20	5
Institutional Curricular Services	8	20. Courses providing specific skills that will be useful on a job	4.30	5
Instructional Patterns	2	36. Instructors who are relaxed and informal in the classroom	4.53	5
	3	4. Instructors who are personally interested in my progress	4.44	5
	7	28. Instructors who use many examples in their teaching	4.33	4
	13	13. Instructors who have a realistic view of my responsibilities outside class	4.13	4
	14	30. Instructors who provide more than one way to meet course requirements	4.13	4
	15	33. Instructors who modify the course outline to satisfy student interests	4.10	4

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority items, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 24

NEED TAXONOMY ON NONTRADITIONAL AGED STUDENTS GROUPED ACCORDING TO
TASK CATEGORY NO. 2* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	18	27. Improving my note-taking skills	4.03	5
	27	16. Learning to prepare better term papers	3.66	5
	28	48. Improving my vocabulary skills	3.66	5
	32	39. Learning to give better oral reports	3.53	3
	35	41. Improving my writing skills	3.50	5
	36	56. Improving my reading skills	3.50	4
Personal Development	17	19. Encouragement from my family	4.03	5
	20	26. "Fitting in" with other students	3.89	5
	23	34. Improving my social interactions with other students	3.86	3
	25	35. A place to study at home	3.83	4
	26	51. Learning to set better goals for myself	3.80	4
	31	21. Working with other students on class projects	3.55	3
	37	29. Learning to cope with failure	3.43	3
	40	42. "Keeping up" with other students in class	3.30	3
Psychological Impediments	45	11. Studying with other students	3.00	3
	33	63. Loss of contact with old friends	3.53	3
	38	62. Lack of time for home responsibilities	3.40	3
	43	61. Lack of acceptance by students or co-workers	3.06	3
<u>Provider</u>				
Institutional Support Services	21	1. A place to study on campus	3.86	5
	29	25. Financial aid	3.65	5
	46	17. Tutoring services	2.93	3
Institutional Curricular Services	22	23. Being able to obtain credit for out-of- college experiences	3.86	4
	30	10. Being able to drop a course at any time without receiving a penalty	3.58	3
	34	14. Being able to take a variety of courses before deciding on a major field of study	3.51	3
	42	50. Summer classes	3.06	4
	44	3. Being able to take a course as an independent study	3.00	3
Instructional Patterns	19	49. Encouragement from my instructors	4.03	5
	24	32. Being able to take "re-tests" to improve my grade	3.83	4
	39	5. The use of films, tapes, and other audio-visual materials in a course	3.33	3
	41	46. Courses with many class discussions	3.26	3

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 25
NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 2* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.0	0
Personal Development	48	53. Reducing my uneasiness about going to college	2.90	3
	52	54. Students my own age in my classes	2.70	3
Psychological Impediments	50	58. Family feeling neglected	2.86	2
	53	57. Fear of appearing awkward	2.70	3
	55	60. Disapproval by significant others	2.56	3
	56	59. Fear of appearing unintelligent	2.53	3
<u>Provider</u>				
Institutional Support Services	55	15. A campus tour during my first semester	2.55	2
	58	37. Evening and weekend registration	2.46	3
	59	2. Bus service to the campus	2.13	1
	61	47. Child care facilities on campus	1.53	1
Institutional Curricular Services	51	12. Being able to take a course with "pass- fail" grading instead of "A to F" grading	2.70	3
	57	9. Evening classes	2.48	3
	60	43. Off-campus courses	2.10	1
	62	40. Weekend classes	1.43	1
Instructional Patterns	47	45. Instructors who let students decide what should be covered in a course	2.90	3
	49	55. Instructors who follow the course outline very closely	2.86	3

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 26

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 3* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	4	8. Improving my study skills	4.50	4
	11	56. Improving my reading skills	4.12	4
	13	16. Learning to prepare better term papers	4.00	5
	15	31. Extracurricular activities	3.87	5
Personal Development	3	7. Learning to organize my time better	4.50	5
	5	24. Improving my concentration	4.50	4
	8	52. Improving my motivation for college work	4.25	5
	9	19. Encouragement from my family	4.12	5
Psychological Impediments			0	
<u>Provider</u>				
Institutional Support Services	1	6. Preregistration	5.00	5
	7	22. Speedy registration procedures	4.25	5
	16	1. A place to study on campus	3.87	4
Institutional Curricular Services	2	20. Courses providing specific skills that will be useful on a job	4.62	5
	12	14. Being able to take a variety of courses before deciding on a major field of study	4.00	4
Instructional Patterns	6	4. Instructors who are personally interested in my progress	4.37	5
	10	36. Instructors who are relaxed and informal in the classroom	4.12	4
	14	13. Instructors who have a realistic view of my responsibilities outside class	3.87	5

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority items, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 27

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 3* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic	17	39. Learning to give better oral reports	3.87	5
Survival	25	27. Improving my note-taking skills	3.62	3
Skills	28	48. Improving my vocabulary skills	3.62	4
	33	41. Improving my writing skills	3.50	5
Personal	18	51. Learning to set better goals for myself	3.87	4
Development	22	34. Improving my social interactions with other students	3.75	4
	23	44. Getting "A's" and "B's" in my courses	3.75	4
	34	11. Studying with other students	3.37	4
	36	26. "Fitting in" with other students	3.37	3
	41	21. Working with other students on class projects	3.12	4
	42	29. Learning to cope with failure	3.12	3
Psychological	19	63. Loss of contact with old friends	3.87	4
Impediments	29	57. Fear of appearing awkward	3.62	4
	30	59. Fear of appearing unintelligent	3.62	4
	39	61. Lack of acceptance by students or co-workers	3.25	3
	44	60. Disapproval by significant others	3.00	3
	45	62. Lack of time for home responsibilities	3.00	3
<u>Provider</u>				
Institutional	35	18. Being able to get occupational counseling	3.37	4
Support	38	25. Financial aid	3.25	5
Services	40	17. Tutoring services	3.12	3
Institutional	31	23. Being able to obtain credit for out-of-college experiences	3.50	2
Curricular	37	10. Being able to drop a course at any time without receiving a penalty grade	3.25	4
Services				
Institutional	20	5. The use of films, tapes, and other audio-visual materials in a course	3.75	4
Patterns	21	28. Instructors who use many examples in their teaching	3.75	4
	24	49. Encouragement from my instructors	3.75	4
	26	30. Instructors who provide more than one way to meet course requirements	3.62	4
	27	33. Instructors who modify the course outline to satisfy student interests	3.62	4
	32	32. Being able to take "re-tests" to improve my grade	3.50	3
	43	45. Instructors who let students decide what should be covered in a course	3.00	4

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 28

NEED TAXONOMY OF NON-TRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 3* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	47	35. A place to study at home	2.87	4
	48	42. "Keeping up" with other students in class	2.87	2
Personal Development	49	53. Reducing my uneasiness about going to college	2.87	2
	54	54. Students my own age in my classes	2.75	1
Psychological Impediments	55	58. Family feeling neglected	2.75	3
<u>Provider</u>				
Institutional Support Services	51	37. Evening and weekend registration	2.75	3
	58	15. A campus tour during my first semester	2.37	1
	60	2. Bus service to the campus	1.75	1
	62	47. Child care facilities on campus	0.87	1
Institutional Curricular Services	46	12. Being able to take a course with "pass-fail" grading instead of "A to F" grading	2.87	3
	50	3. Being able to take a course as an independent study	2.75	1
	52	43. Off-campus courses	2.75	1
	57	50. Summer classes	2.50	1
	59	9. Evening classes	2.00	1
	61	40. Weekend classes	1.25	1
Instructional Patterns	53	46. Courses with many class discussions	2.75	3
	56	55. Instructors who follow the course outline very closely	2.62	1

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

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TABLE 29

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 4* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic	1	8. Improving my study skills	4.7	5
Survival	7	27. Improving my note-taking skills	4.4	5
Skills	13	16. Learning to prepare better term papers	4.2	5
Personal	2	19. Encouragement from my family	4.7	5
Development	4	7. Learning to organize my time better	4.5	4
	14	24. Improving my concentration	4.2	4
	15	52. Improving my motivation for college work	4.2	5
	16	35. A place to study at home	4.1	5
Psychological Impediments			0.0	0
<u>Provider</u>				
Institutional	5	22. Speedy registration procedures	4.4	5
Support	8	1. A place to study on campus	4.3	5
Services				
Institutional	3	20. Courses providing specific skills that will be useful on a job	4.7	5
Curricular	6	23. Being able to obtain credit for out-of- college experiences	4.4	5
Services				
Instructional	9	4. Instructors who are personally interested in my progress	4.3	5
Patterns	10	28. Instructors who use many examples in their teaching	4.3	4
	11	36. Instructors who are relaxed and informal in the classroom	4.3	5
	12	49. Encouragement from my instructors	4.3	5

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority items, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 30

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 4* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic	19	48. Improving my vocabulary skills	4.0	5
Survival	25	56. Improving my reading skills	3.9	5
Skills	30	41. Improving my writing skills	3.5	3
	38	39. Learning to give better oral reports	3.3	4
Personal	20	51. Learning to set better goals for myself	4.0	5
Development	22	29. Learning to cope with failure	3.9	5
	25	56. Improving my reading skills	3.9	5
	36	26. "Fitting in" with other students	3.3	3
	37	34. Improving my social interactions with other students	3.3	5
	39	42. "Keeping up" with other students in class	3.3	4
	41	21. Working with other students on class projects	3.2	4
Psychological	32	63. Loss of contact with old friends	3.5	4
Impediments	43	60. Disapproval by significant others	3.0	4
	44	61. Lack of acceptance by students or co-workers	3.0	4
	45	62. Lack of time for home responsibilities	3.0	3
<u>Provider</u>				
Institutional	18	31. Extracurricular activities	4.0	3
Support	21	18. Being able to get occupational counseling	3.9	5
Services	28	6. Preregistration	3.6	5
	33	5. The use of films, tapes, and other audio-visual materials in a course	3.3	4
	35	17. Tutoring services	3.3	4
	42	25. Financial aid	3.1	4
	46	15. A campus tour during my first semester	2.9	3
Institutional	26	14. Being able to take a variety of courses before deciding on a major field of study	3.8	5
Curricular	31	46. Courses with many class discussions	3.5	3
Services	34	10. Being able to drop a course at any time without receiving a penalty grade	3.3	3
Instructional	23	32. Being able to take "re-tests" to improve my grade	3.9	4
Patterns	24	33. Instructors who modify the course outline to satisfy student interests	3.9	5
	27	30. Instructors who provide more than one way to meet course requirements	3.8	5
	29	13. Instructors who have a realistic view of my responsibilities outside class	3.6	5
	40	55. Instructors who follow the course outline very closely	3.3	4

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

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TABLE 31

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 4* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.0	0
Personal Development	48	11. Studying with other students	2.8	3
	51	53. Reducing my uneasiness about going to college	2.6	1
	52	54. Students my own age in my classes	2.6	1
Psychological Impediments	53	58. Family feeling neglected	2.6	1
	55	57. Fear of appearing awkward	2.5	1
	56	59. Fear of appearing unintelligent	2.5	1
<u>Provider</u>				
Institutional Support Services	59	37. Evening and weekend registration	2.1	3
	60	2. Bus service to the campus	1.7	1
	61	47. Child care facilities on campus	1.4	1
Institutional Curricular Services	47	3. Being able to take a course as an independent study	2.8	4
	49	50. Summer classes	2.8	3
	50	12. Being able to take a course with "pass- fail" grading instead of "A to F" grading	2.6	1
	57	9. Evening classes	2.4	1
	58	43. Off-campus courses	2.2	1
	62	40. Weekend classes	1.2	1
Instructional Patterns	54	45. Instructors who let students decide what should be covered in a course	2.5	1

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

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TABLE 32

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 5* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	7	8. Improving my study skills	4.5	4
	9	27. Improving my note-taking skills	4.5	4
	12	39. Learning to give better oral reports	4.5	4
	16	7. Learning to organize my time better	4.0	3
Personal Development	1	19. Encouragement from my family	5.0	5
	3	44. Getting "A's" and "B's" in my courses	5.0	5
	11	35. A place to study at home	4.5	4
	14	54. Students my own age in my classes	4.5	4
Psychological Impediments	10	31. Extracurricular activities	4.5	4
<u>Provider</u>				
Institutional Support Services	2	22. Speedy registration procedures	5.0	5
	4	1. A place to study on campus	4.5	4
	6	6. Preregistration	4.5	4
Institutional Curricular Services	8	20. Courses providing specific skills that will be useful on a job	4.5	4
Instructional Patterns	5	4. Instructors who are personally interested in my progress	4.5	4
	13	49. Encouragement from my instructors	4.5	4
	15	55. Instructors who follow the course outline very closely	4.5	4

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority items, marked high in importance, top 25 percent.

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TABLE 33

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 5* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	25	41. Improving my writing skills	4.0	3
	26	48. Improving my vocabulary skills		
	30	56. Improving my reading skills	4.0	3
Personal Development	19	21. Working with other students on class projects	4.0	3
	21	26. "Fitting in" with other students	4.0	4
	28	51. Learning to set better goals for myself	4.0	3
	29	52. Improving my motivation for college work	4.0	3
	31	11. Studying with other students	3.5	3
	35	24. Improving my concentration	3.5	3
	38	42. "Keeping up" with other students in class	3.5	3
	39	53. Reducing my uneasiness about going to college	3.5	3
	43	29. Learning to cope with failure	3.0	3
Psychological Impediments	40	61. Lack of acceptance by students or co-workers	3.5	3
	46	57. Fear of appearing awkward	3.0	3
<u>Provider</u>				
Institutional Support Services	17	10. Being able to drop a course at any time without receiving a penalty	4.0	3
	18	18. Being able to get occupational counseling	4.0	4
	20	25. Financial aid	4.0	3
	42	15. A campus tour during my first semester	3.0	2
Instructional Curricular Services	27	50. Summer classes	4.0	3
	33	14. Being able to take a variety of courses before deciding on a major field of study	3.5	3
	34	23. Being able to obtain credit for out-of-college experiences	3.5	3
Instructional Patterns	22	28. Instructors who use many examples in their teaching	4.0	4
	23	32. Being able to take "re-tests" to improve my grade	4.0	3
Instructional Patterns	24	36. Instructors who are relaxed and informal in the classroom	4.0	3
	32	13. Instructors who have a realistic view of my responsibilities outside class	3.5	3
	36	30. Instructors who provide more than one way to meet course requirements	3.5	3
	37	33. Instructors who modify the course outline to satisfy student interests	3.5	3
	41	5. The use of films, tapes, and other audio-visual materials in a course	3.0	3
	44	45. Instructors who let students decide what should be covered in a course	3.0	3
	45	46. Courses with many class discussions	3.0	2

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

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TABLE 34

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 5* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	49	16. Learning to prepare better term papers	2.5	2
Personal Development	59	34. Improving my social interactions with other students	1.5	0
Psychological Impediments	47	62. Lack of time for home responsibilities	3.0	3
	52	58. Family feeling neglected	2.5	2
	53	63. Loss of contact with old friends	2.5	2
	56	59. Fear of appearing unintelligent	2.0	2
	57	60. Disapproval by significant others	2.0	2
<u>Provider</u>				
Institutional Support Services	50	37. Evening and weekend registration	2.5	1
	55	17. Tutoring services	2.0	2
	60	2. Bus service to the campus	1.0	1
	62	47. Child care facilities on campus	1.0	1
Instructional Curricular Services	48	12. Being able to take a course with "pass- fail" grading instead of "A to F" grading	2.5	1
	51	43. Off-campus courses	2.5	2
	54	9. Evening classes	2.0	1
	58	3. Being able to take a course as an independent study	1.5	1
	61	40. Weekend classes	1.0	1
Instructional Patterns			0.0	0

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 35

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 6* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	4 9 13	8. Improving my study skills 39. Learning to give better oral reports 56. Improving my reading skills	5.00 5.00 5.00	5 5 5
Personal Development	3 5 10	7. Learning to organize my time better 19. Encouragement from my family 44. Getting "A's" and "B's" in my courses	5.00 5.00 5.00	5 5 5
Psychological Impediments	14	61. Lack of acceptance by students and co-workers	5.00	5
<u>Provider</u>				
Institutional Support Services	1 6 15	1. A place to study on campus 22. Speedy registration procedures 6. Preregistration	5.00 5.00 4.66	5 5 5
Institutional Curricular Services	11 16	50. Summer classes 10. Being able to drop a course at any time without receiving a penalty grade	5.00 4.66	5 5
Instructional Patterns	2 7 8 12	4. Instructors who are personally interested in my progress 28. Instructors who use many examples in their teaching 32. Being able to take "re-tests" to improve my grade 55. Instructors who follow the course outline very closely	5.00 5.00 5.00 5.00	5 5 5 5

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority item, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 36

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 6* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	27	27. Improving my note-taking skills	4.33	4
	29	41. Improving my writing skills	4.33	5
	31	48. Improving my vocabulary skills	4.33	5
	34	16. Learning to prepare better term papers	4.00	4
Personal Development	18	21. Working with other students on class projects	4.66	5
	19	24. Improving my concentration	4.66	5
	20	26. "Fitting in" with other students	4.66	5
	28	29. Learning to cope with failure	4.33	5
	30	42. "Keeping up" with other students in class	4.33	4
	32	51. Learning to set better goals for myself	4.33	4
	36	52. Improving my motivation for college work	4.00	3
	38	11. Studying with other students	3.66	3
	39	34. Improving my social interactions with other students	3.66	3
	40	35. A place to study at home	3.66	5
Psychological Impediments	46	53. Reducing my uneasiness about going to college	3.33	1
	22	57. Fear of appearing awkward	4.66	5
	33	60. Disapproval by significant others	4.33	5
	37	59. Fear of appearing unintelligent	4.00	5
<u>Provider</u>				
Institutional Support Services	17	18. Being able to get occupational counseling	4.66	5
	26	25. Financial aid	4.33	5
	35	31. Extracurricular activities	4.00	5
	43	2. Bus service to the campus	3.33	1
Institutional Curricular Services	24	14. Being able to take a variety of courses before deciding on a major field of study	4.33	5
	25	23. Being able to obtain credit for out-of-college experiences	4.33	5
	41	40. Weekend classes	3.66	5
	44	20. Courses providing specific skills that will be useful on a job	3.33	5
Instructional Patterns	21	36. Instructors who are relaxed and informal in the classroom	4.66	5
	23	13. Instructors who have a realistic view of my responsibilities outside class	4.33	4
	42	46. Courses with many class discussions	3.66	3
	45	30. Instructors who provide more than one way to meet course requirements	3.33	2

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 37

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 6* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.0	0
Personal Development	48	54. Students my own age in my classes	3.33	1
Psychological Impediments	49	62. Lack of time for home responsibilities	3.33	5
	50	63. Loss of contact with old friends	3.33	5
	60	58. Family feeling neglected	2.00	1
<u>Provider</u>				
Institutional Support Services	53	17. Tutoring services	3.00	3
	54	37. Evening and weekend registration	3.00	4
	57	15. A campus tour during my first semester	2.66	1
	59	47. Child care facilities on campus	2.66	1
Institutional Curricular Services	51	3. Being able to take a course as an independent study	3.00	3
	52	9. Evening classes	3.00	2
	61	12. Being able to take a course with "pass-fail" grading instead of "A to F" grading	1.66	1
	63	43. Off-campus courses	1.66	1
Instructional Patterns	55	49. Encouragement from my instructors	3.00	0
	56	5. The use of films, tapes, and other audio-visual materials in a course	2.66	1
	58	45. Instructors who let students decide what should be covered in a course	2.66	1
	62	33. Instructors who modify the course outline to satisfy student interests	1.66	0

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 38
NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 7* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	4	48. Improving my vocabulary skills	4.40	5
	5	8. Improving my study skills	4.20	4
	10	56. Improving my reading skills	4.20	4
	12	39. Learning to give better oral reports	4.00	4
Personal Development	14	52. Improving my motivation for college work	4.00	4
	15	7. Learning to organize my time better	3.80	3
	16	24. Improving my concentration	3.80	3
Psychological Impediments			0.0	0
<u>Provider</u>				
Institutional Support Services	3	22. Speedy registration procedures	4.40	5
	8	31. Extracurricular activities	4.20	4
Institutional Curricular Services	1	20. Courses providing specific skills that will be useful on the job	4.00	3
	11	23. Being able to obtain credit for out-of- college experiences	4.00	3
Instructional Patterns	2	4. Instructors who are personally interested in my progress	4.50	4
	6	13. Instructors who have a realistic view of my responsibilities outside class	4.20	4
	7	28. Instructors who use many examples in their teaching	4.20	4
	9	36. Instructors who are relaxed and informal in the classroom	4.20	4
	13	46. Courses with many class discussions	4.00	4

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority items, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 39

NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 7* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	18	27. Improving my note-taking skills	3.80	4
	31	16. Learning to prepare better term papers	3.40	3
	33	41. Improving my writing skills	3.40	4
Personal Development	20	44. Getting "A's" and "B's" in my courses	3.80	5
	26	19. Encouragement from my family	3.60	4
	27	21. Working with other students on class projects	3.60	4
	28	34. Improving my social interactions with other students	3.60	3
	30	11. Studying with other students	3.40	4
	35	51. Learning to set better goals for myself	3.40	4
	37	42. "Keeping up" with other students in class	3.20	3
	40	26. "Fitting in" with other students	3.00	2
	41	29. Learning to cope with failure	3.00	3
	42	35. A place to study at home	3.00	1
	46	53. Reducing my uneasiness about going to college	2.80	4
Psychological Impediments	22	63. Loss of contact with old friends	3.80	5
	43	61. Lack of acceptance by students or co-workers	3.00	3
<u>Provider</u>				
Institutional Support Services	17	25. Financial aid	3.80	3
	23	6. Preregistration	3.75	5
	24	1. A place to study on campus	3.60	4
	44	18. Being able to get occupational counseling	2.80	3
Institutional Curricular Services	25	12. Being able to take a course with "pass-fail" grading instead of "A to F" grading	3.60	3
	29	50. Summer classes	3.60	4
	36	3. Being able to take a course as an independent study	3.20	3
	39	14. Being able to take a variety of courses before deciding on a major field of study	3.00	2
Instructional Patterns	19	30. Instructors who provide more than one way to meet course requirements	3.80	3
	21	45. Instructors who let students decide what should be covered in a course	3.80	3
	32	33. Instructors who modify the course outline to satisfy student interests	3.40	3
	34	49. Encouragement from my instructors	3.40	4
	38	55. Instructors who follow the course outline very closely	3.20	4
	45	32. Being able to take "re-tests" to improve my grade	2.80	3

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 40
NEED TAXONOMY OF NONTRADITIONAL AGED STUDENTS (23+) GROUPED ACCORDING TO
TASK CATEGORY NO. 7* THIRD ORDER NEEDS (BOITOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.0	0
Personal Development	54	54. Students my own age in my classes	2.20	1
Psychological Impediments	48	62. Lack of time for home responsibilities	2.80	3
	53	60. Disapproval by significant others	2.60	3
	58	58. Family feeling neglected	2.00	2
	59	59. Fear of appearing unintelligent	1.80	1
	62	57. Fear of appearing awkward	1.60	2
<u>Provider</u>				
Institutional Support Services	52	17. Tutoring services	2.60	3
	55	2. Bus service to the campus	2.00	1
	56	15. A campus tour during my first semester	2.00	2
	57	37. Evening and weekend registration	2.00	1
	63	47. Child care facilities on campus	1.20	1
Institutional Curricular Services	50	9. Evening classes	2.60	1
	51	10. Being able to drop a course at any time without receiving a penalty grade	2.60	1
	60	40. Weekend classes	1.60	2
	61	43. Off-campus courses	1.60	2
Instructional Patterns	49	5. The use of films, tapes, and other audio- materials in a course	2.75	2

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 41

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 1* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	8	8. Improving my study skills	4.12	5
Personal Development	4	44. Getting "A's" and "B's" in my courses	4.41	5
	5	19. Encouragement from my family	4.40	4
	11	7. Learning to organize my time better	4.00	5
	13	52. Improving my motivation for college work	3.91	4
Psychological Impediments			0.0	0
<u>Provider</u>				
Institutional Support Services	1	22. Speedy registration procedures	4.66	5
	2	6. Preregistration	4.58	5
	12	18. Being able to get occupational counseling	4.00	4
Institutional Curricular Services	3	20. Courses providing specific skills that will be useful on a job	4.54	5
Instructional Patterns	6	4. Instructors who are personally interested in my progress	4.37	4
	7	13. Instructors who have a realistic view of my responsibilities outside class	4.27	4
	9	36. Instructors who are relaxed and informal in the classroom	4.08	4
	10	28. Instructors who use many examples in their teaching	4.00	4
	14	33. Instructors who modify the course outline to satisfy student	3.91	4
	15	49. Encouragement from my instructors	3.87	4
	16	30. Instructors who provide more than one way to meet course requirements	3.79	4

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority items, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 42

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED
ACCORDING TO TASK CATEGORY NO. 1* SECOND ORDER NEEDS (MIDDLE 50 PERCENT**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	17	27. Improving my note-taking skills	3.79	4
	25	56. Improving my reading skills	3.62	3
	26	41. Improving my writing skills	3.50	3
	27	39. Learning to give better oral reports	3.50	4
	37	16. Learning to prepare better term papers	3.29	4
	46	48. Improving my vocabulary skills	3.25	3
Personal Development	18	24. Improving my concentration	3.79	4
	28	26. "Fitting in" with other students	3.52	3
	31	31. Working with other students on class projects	3.45	4
	35	11. Studying with other students	3.41	4
	36	29. Learning to cope with failure	3.33	4
	38	35. A place to study at home	3.25	4
	41	34. Improving my social interactions with other students	3.16	4
	42	42. "Keeping up" with other students in class	3.12	4
Psychological Impediments	33	63. Loss of contact with old friends	3.41	4
<u>Provider</u>				
Institutional Support Services	19	1. A place to study on campus	3.78	5
	22	31. Extracurricular activities	3.69	4
	23	25. Financial aid	3.62	3
	43	17. Tutoring services	3.12	3
Institutional Curricular Services	20	23. Being able to obtain credit for out-of-college experiences	3.75	4
	24	51. Learning to set better goals for myself	3.50	3
	29	14. Being able to take a variety of courses before deciding on a major field of study	3.52	3
	30	10. Being able to drop a course at any time without receiving a penalty grade	3.50	4
	39	3. Being able to take a course as an independent study	3.16	3
	44	50. Summer classes	3.06	3
Instructional Patterns	21	32. Being able to take "re-tests" to improve my grade	3.69	4
	32	5. The use of films, tapes, and other audio-visual materials in a course	3.45	3
	34	46. Courses with many class discussions	3.41	4
	40	55. Instructors who follow the course outline very closely	3.16	4
	45	45. Instructors who let students decide what should be covered in a course	3.41	3

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 43

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED
ACCORDING TO TASK CATEGORY NO. 1* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.00	0
Personal Development	52	54. Students my own age in my classes	2.70	3
	55	53. Reducing my uneasiness about going to college	2.54	3
Psychological Impediments	47	62. Lack of time for home responsibilities	3.00	3
	53	61. Lack of acceptance by students or co-workers	2.66	4
	46	60. Disapproval by significant others	2.41	3
	57	59. Fear of appearing unintelligent	2.41	2
	58	58. Family feeling neglected	2.41	3
	59	57. Fear of appearing awkward	2.37	1
<u>Provider</u>				
Institutional Support Services	49	37. Evening and weekend registration	2.95	3
	50	2. Bus service to the campus	2.87	5
	54	15. A campus tour during my first semester	2.56	1
	62	47. Child care facilities on campus	1.54	1
Institutional Curricular Services	48	12. Being able to take a course with "pass- fail" grading instead of "A to F" grading	3.00	3
	51	9. Evening classes	2.79	2
	60	43. Off-campus courses	2.04	3
	61	40. Weekend classes	1.62	1
Instructional Patterns			0.0	0

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 44

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED
ACCORDING TO TASK CATEGORY NO. 2* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.0	0
Personal Development	1	44. Getting "A's" and "B's" in my courses	4.70	5
	5	7. Learning to organize my time better	4.37	5
	16	24. Improving my concentration	4.06	4
Psychological Impediments			0.0	0
<u>Provider</u>				
Institutional Support Services	6	6. Preregistration	4.33	5
	10	22. Speedy registration procedures	4.28	5
	11	31. Extracurricular activities	4.23	5
	12	18. Being able to get occupational counseling	4.20	5
Institutional Curricular Services	8	20. Courses providing specific skills that will be useful on a job	4.30	5
	9	52. Improving my motivation for college work	4.30	4
Instructional Patterns	2	36. Instructors who are relaxed and informal in the classroom	4.53	5
	3	4. Instructors who are personally interested in my progress	4.44	5
	4	8. Improving my study skills	4.41	5
	7	28. Instructors who use many examples in their teaching	4.33	4
	13	30. Instructors who provide more than one way to meet course requirements	4.13	4
	14	13. Instructors who have a realistic view of my responsibilities outside class	4.13	4
	15	33. Instructors who modify the course outline to satisfy student interests	4.10	4

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority items, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 45

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 2* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	18	27. Improving my note-taking skills	4.03	5
	27	16. Learning to prepare better term papers	3.66	5
	28	48. Improving my vocabulary skills	3.66	3
	32	39. Learning to give better oral reports	3.53	3
	34	56. Improving my reading skills	3.50	4
	35	41. Improving my writing skills	3.50	5
Personal Development	17	19. Encouragement from my family	4.03	5
	20	26. "Fitting in" with other students	3.89	5
	21	34. Improving my social interactions with other students	3.86	3
	24	35. A place to study at home	3.83	4
	26	51. Learning to set better goals for myself	3.80	4
	30	21. Working with other students on class projects	3.55	3
	36	29. Learning to cope with failure	3.43	3
	39	42. "Keeping up" with other students in class	3.30	3
	43	11. Studying with other students	3.00	3
Psychological Impediments	31	63. Loss of contact with old friends	3.53	3
	37	62. Lack of time for home responsibilities	3.40	3
	42	61. Lack of acceptance by students or co-workers	3.06	3
<u>Provider</u>				
Institutional Support Services	22	1. A place to study on campus	3.86	5
	29	25. Financial aid	3.65	5
	45	17. Tutoring services	2.93	3
Institutional Curricular Services	23	23. Being able to obtain credit for out-of-college experiences	3.86	4
	33	14. Being able to take a variety of courses before deciding on a major field of study	3.51	3
	41	50. Summer classes	3.06	4
	44	3. Being able to take a course as an independent study	3.00	3
Instructional Patterns	19	49. Encouragement from my instructors	4.03	5
	25	32. Being able to take "re-tests" to improve my grade	3.83	4
	38	5. The use of films, tapes, and other audio-visual materials in a course	3.33	5
	40	46. Courses with many class discussions	3.26	3
	46	45. Instructors who let students decide what should be covered in a course	2.90	3

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 46

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 2* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.0	0
Personal Development	47	53. Reducing my uneasiness about going to college	2.90	3
	50	54. Students my own age in my classes	2.70	3
Psychological Impediments	55	58. Family feeling neglected	2.53	3
	51	57. Fear of appearing awkward	2.70	3
	53	60. Disapproval by significant others	2.56	3
	56	59. Fear of appearing unintelligent	2.53	3
<u>Provider</u>				
Institutional Support Services	54	15. A campus tour during my first semester	2.55	2
	58	37. Evening and weekend registration	2.46	3
	59	2. Bus service to the campus	2.13	1
	61	47. Child care facilities on campus	1.53	1
Institutional Curricular	52	10. Being able to drop a course at any time without receiving a penalty grade	2.58	3
	49	12. Being able to take a course with "pass-fail" grading instead of "A to F" grading	2.70	3
	57	9. Evening classes	2.48	3
	60	43. Off-campus courses	2.10	1
	62	40. Weekend classes	1.43	1
Instructional Patterns	48	55. Instructors who follow the course outline very closely	2.86	3

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 47

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 3* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	4	8. Improving my study skills	4.50	4
	9	56. Improving my reading skills	4.12	4
	12	16. Learning to prepare better term papers	4.00	5
	14	51. Learning to set better goals for myself	3.88	4
Personal Development	3	24. Improving my concentration	4.50	4
	5	7. Learning to organize my time better	4.50	5
	7	52. Improving my motivation for college work	4.25	5
	11	19. Encouragement from my family	4.12	5
Psychological Impediments	15	63. Loss of contact with old friends	3.87	4
<u>Provider</u>				
Institutional Support Services	1	6. Preregistration	5.00	5
	8	22. Speedy registration procedures	4.25	5
Institutional Curricular Services	2	20. Courses providing specific skills that will be useful on a job	4.62	5
	13	14. Being able to take a variety of courses before deciding on a major field of study	4.00	4
Institutional Patterns	6	4. Instructors who are personally interested in my progress	4.37	5
	10	36. Instructors who are relaxed and informal in the classroom	4.12	4
	16	13. Instructors who have a realistic view of my responsibilities outside class	3.87	5

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority items, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 48

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING
TO TEST CATEGORY NO. 3* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic	17	39. Learning to give better oral reports	3.90	5
Survival	27	48. Improving my vocabulary skills	3.62	4
Skills	30	27. Improving my note-taking skills	3.62	3
	31	41. Improving my writing skills	3.50	5
Personal	22	44. Getting "A's" and "B's" in my courses	3.75	4
Development	23	34. Improving my social interactions with other students	3.75	4
	34	26. "Fitting in" with other students	3.37	3
	36	11. Studying with other students	3.37	4
	40	29. Learning to cope with failure	3.12	3
	41	21. Working with other students on class projects	3.12	4
Psychological	25	59. Fear of appearing unintelligent	3.62	4
Impediments	26	57. Fear of appearing awkward	3.62	4
	37	61. Lack of acceptance by students or co-workers	3.25	3
	43	62. Lack of time for home responsibilities	3.00	3
	44	60. Disapproval by significant others	3.00	3
<u>Provider</u>				
Institutional	18	31. Extracurricular activities	3.87	5
Support	19	1. A place to study on campus	3.87	4
Services	35	18. Being able to get occupational counseling	3.37	4
	38	25. Financial aid	3.25	5
	42	17. Tutoring services	3.13	3
Institutional	33	23. Being able to obtain credit for out-of-college experiences	3.50	2
Curricular	39	10. Being able to drop a course at any time without receiving a penalty grade	3.25	4
Services	46	3. Being able to take a course as an independent study	2.75	1
Instructional	20	28. Instructors who use many examples in their teaching	3.75	4
Patterns	21	49. Encouragement from my instructors	3.75	4
	24	5. The use of films, tapes, and other audio-visual materials in a course	3.75	4
	28	33. Instructors who modify the course outline to satisfy student interests	3.62	4
	29	30. Instructors who provide more than one way to meet course requirements	3.62	4
	32	32. Being able to take "re-tests" to improve my grade	3.50	3
	45	45. Instructors who let students decide what should be covered in a course	3.00	3

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 49

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 3* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.0	0
Personal Development	48	53. Reducing my uneasiness about going to college	2.87	2
	49	42. "Keeping up" with other students in class	2.87	2
	51	35. A place to study at home	2.87	4
	53	54. Students my own age in my classes	2.75	1
Psychological Impediments	47	58. Family feeling neglected	2.75	3
<u>Provider</u>				
Institutional Support Services	50	37. Evening and weekend registration	2.75	3
	58	15. A campus tour during my first semester	2.37	1
	60	2. Bus service to the campus	1.75	1
	62	47. Child care facilities on campus	0.88	1
Institutional Curricular Services	52	12. Being able to take a course with "pass-fail" grading instead of "A to F" grading	2.87	3
	55	43. Off-campus courses	2.75	1
	57	50. Summer classes	2.50	1
	59	9. Evening classes	2.00	1
	61	40. Weekend classes	1.25	1
Instructional Patterns	54	46. Courses with many class discussions	2.75	3
	56	55. Instructors who follow the course outline very closely	2.62	1

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 50

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 4* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	3	8. Improving my study skills	4.70	5
	8	27. Improving my note-taking skills	4.40	5
	14	16. Learning to prepare better term papers	4.20	5
	16	52. Improving my motivation for college work	4.20	5
Personal Development	1	19. Encouragement from my family	4.70	5
	4	44. Getting "A's" and "B's" in my courses	4.60	5
	5	7. Learning to organize my time better	4.50	4
	15	24. Improving my concentration	4.20	4
Psychological Impediments			0.0	0
<u>Provider</u>				
Institutional Support Services	6	22. Speedy registration procedures	4.40	5
	13	1. A place to study on campus	4.30	5
Institutional Curricular Services	2	20. Courses providing specific skills that will be useful on a job	4.70	5
	7	23. Being able to obtain credit for out-of-college experiences	4.40	5
Instructional Patterns	9	49. Encouragement from my instructors	4.30	5
	10	36. Instructors who are relaxed and informal in the classroom	4.30	4
	11	28. Instructors who use many examples in their teaching	4.30	4
	12	4. Instructors who are personally interested in my progress	4.30	5

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority item, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 51

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING
TO TASK CATEGORY NO. 4* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic	19	48. Improving my vocabulary skills	4.00	5
Survival	21	56. Improving my reading skills	3.90	5
Skills	30	41. Improving my writing skills	3.50	3
	35	39. Learning to give better oral reports	3.30	4
Personal	17	35. A place to study at home	4.10	5
Development	18	51. Learning to set better goals for myself	4.00	5
	24	29. Learning to cope with failure	3.90	5
	34	42. "Keeping up" with other students in class	3.30	4
	36	34. Improving my social interactions with other students	3.30	5
	37	26. "Fitting in" with other students	3.30	3
	41	21. Working with other students on class projects	3.20	4
Psychological	32	63. Loss of contact with old friends	3.50	4
Impediments	43	60. Disapproval by significant others	3.00	4
	44	61. Lack of acceptance by students or co-workers	3.00	4
	45	62. Lack of time for home responsibilities	3.00	3
<u>Provider</u>				
Institutional	20	31. Extracurricular activities	4.00	3
Support	25	18. Being able to get occupational counseling	3.90	5
Services	28	6. Preregistration	3.60	5
	38	17. Tutoring services	3.30	4
	42	25. Financial aid	3.10	4
	46	15. A campus tour during my first semester	2.90	3
Institutional	27	14. Being able to take a variety of courses before deciding on a major field of study	3.80	5
Curricular	39	10. Being able to drop a course at any time without receiving a penalty grade	3.30	3
Services				
Instructional	22	33. Instructors who modify the course outline to satisfy student interests	3.90	5
Patterns	23	32. Being able to take "re-tests" to improve my grade	3.90	4
	26	30. Instructors who provide more than one way to meet course requirements	3.80	5
	29	13. Instructors who have a realistic view of my responsibilities outside class	3.60	5
	31	46. Courses with many class discussions	3.50	3
	33	55. Instructors who follow the course outline very closely	3.30	4
	40	5. The use of films, tapes, and other audio-visual materials in a course	3.30	4

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered round the midpoint of the overall study.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 52

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING
TO TASK CATEGORY NO. 4* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.0	0
Personal Development	48	11. Studying with other students	2.80	3
	51	54. Students my own age in my classes	2.60	1
	52	53. Reducing my uneasiness about going to college	2.60	1
Psychological Impediments	50	58. Family feeling neglected	2.60	1
	55	57. Fear of appearing awkward	2.50	1
	56	59. Fear of appearing unintelligent	2.50	1
<u>Provider</u>				
Institutional Support	59	37. Evening and weekend registration	2.10	3
	60	2. Bus service to the campus	1.70	1
	61	47. Child care facilities on campus	1.40	1
Institutional Curricular Services	47	50. Summer classes	4.00	5
	49	3. Being able to take a course as an independent study	2.80	4
	53	12. Being able to take a course with "pass- fail" grading instead of "A to F" grading	2.60	1
	57	9. Evening classes	2.40	1
	58	43. Off-campus courses	2.20	1
	62	40. Weekend classes	1.20	1
Instructional Patterns	54	45. Instructors who let students decide what should be covered in a course	2.50	1

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 53

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 5* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	7	8. Improving my study skills	4.50	4
	9	27. Improving my note-taking skills	4.50	4
	12	39. Learning to give better oral reports	4.50	4
Personal Development	1	44. Getting "A's" and "B's" in my courses	5.00	5
	2	19. Encouragement from my family	5.00	5
	11	35. A place to study at home	4.50	4
	14	54. Students my own age in my classes	4.50	4
Psychological Impediments			0.0	0
<u>Provider</u>				
Institutional Support Services	3	22. Speedy registration procedures	5.00	5
	4	1. A place to study on campus	4.50	4
	6	6. Preregistration	4.50	4
	10	31. Extracurricular activities	4.50	4
Institutional Curricular Services	8	20. Courses providing specific skills that will be useful on a job	4.50	4
	16	10. Being able to drop a course at any time without receiving a penalty grade	4.00	3
Instructional Patterns	5	4. Instructors who are personally interested in my progress	4.50	4
	13	49. Encouragement from my instructors	4.50	4
	15	55. Instructors who follow the course outline very closely	4.50	4

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority items, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 54

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING
TO TASK CATEGORY NO. 5* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic	25	41. Improving my writing skills	4.00	3
Survival	26	48. Improving my vocabulary skills	4.00	3
Skills	30	56. Improving my reading skills	4.00	3
Personal	17	7. Learning to organize my time better	4.00	3
Development	19	21. Working with other students on class projects	4.00	3
	21	26. "Fitting in" with other students	4.00	4
	28	51. Learning to set better goals for myself	4.00	3
	29	52. Improving my motivation for college work	4.00	3
	31	11. Studying with other students	3.50	3
	32	24. Improving my concentration	3.50	3
	33	42. "Keeping up" with other students in class	3.50	3
	34	53. Reducing my uneasiness about going to college	3.50	3
	42	29. Learning to cope with failure	3.00	3
Psychological	35	61. Lack of acceptance by students or co-workers	3.50	3
Impediments	46	57. Fear of appearing awkward	3.00	3
<u>Provider</u>				
Institutional	18	18. Being able to get occupational counseling	4.00	4
Support	20	25. Financial aid	4.00	3
Services	45	15. A campus tour during my first semester	3.00	2
Institutional	27	50. Summer classes	4.00	3
Curricular	36	14. Being able to take a variety of courses before deciding on a major field of study	3.50	3
Services	37	23. Being able to obtain credit for out-of-college experiences	3.50	3
Instructional	22	28. Instructors who use many examples in their teaching	4.00	4
Patterns	23	32. Being able to take "re-tests" to improve my grade	4.00	3
	24	36. Instructors who are relaxed and informal in the classroom	4.00	3
	38	30. Instructors who provide more than one way to meet course requirements	3.50	3
	39	33. Instructors who modify the course outline to satisfy student interests	3.50	3
	40	13. Instructors who have a realistic view of my responsibilities outside class	3.50	3
	41	45. Instructors who let students decide what should be covered in a course	3.00	3
	43	5. The use of films, tapes, and other audio-visual materials in a course	3.00	3
	44	46. Courses with many class discussions	3.00	2

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 55

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 5* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	48	16. Learning to prepare better term papers	2.50	2
Personal Development	58	34. Improving my social interactions with other students	1.50	0
Psychological Impediments	47	62. Lack of time for home responsibilities	3.00	3
	52	58. Family feeling neglected	2.50	2
	53	63. Loss of contact with old friends	2.50	2
	54	60. Disapproval by significant others	2.00	2
	55	59. Fear of appearing unintelligent	2.00	2
<u>Provider</u>				
Institutional Support Services	51	37. Evening and weekend registration	2.50	1
	56	17. Tutoring services	2.00	2
	60	2. Bus service to the campus	1.00	1
	61	47. Child care facilities on campus	1.00	1
Institutional Curricular Services	49	12. Being able to take a course with "pass-fail" grading instead of "A to F" grading	2.50	1
	50	43. Off-campus courses	2.50	2
	57	9. Evening classes	2.00	1
	59	3. Being able to take a course as an independent study	1.50	1
	62	40. Weekend classes	1.00	1
Instructional Patterns			0.00	0

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 56

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING
TO TASK CATEGORY NO. 6* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic	4	8. Improving my study skills	5.00	5
Survival Skills	9	39. Learning to give better oral reports	5.00	5
Personal Development	5	19. Encouragement from my family	5.00	5
	10	44. Getting "A's" and "B's" in my courses	5.00	5
Psychological Impediments	14	61. Lack of acceptance by students or co-workers	5.00	5
<u>Provider</u>				
Institutional Support Services	1	1. A place to study on campus	5.00	5
	6	22. Speedy registration procedures	5.00	5
	15	6. Preregistration	4.66	5
Institutional Curricular Services	3	7. Learning to organize my time better	5.00	5
	11	50. Summer classes	5.00	5
	13	56. Improving my reading skills	5.00	5
	16	10. Being able to drop a course at any time without receiving a penalty grade	4.66	5
Instructional Patterns	2	4. Instructors who are personally interested in my progress	5.00	5
	7	28. Instructors who use many examples in their teaching	5.00	5
	8	32. Being able to take "re-tests" to improve my grade	5.00	5
	12	55. Instructors who follow the course outline very closely	5.00	5

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority item, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 57

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 6* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	26	27. Improving my note-taking skills	4.33	4
	28	41. Improving my writing skills	4.33	5
	30	48. Improving my vocabulary skills	4.00	5
	33	16. Learning to prepare better term papers	4.00	3
Personal Development	18	21. Working with other students on class projects	4.66	5
	19	24. Improving my concentration	4.66	5
	20	26. "Fitting in" with other students	4.66	5
	27	29. Learning to cope with failure	4.33	5
	29	42. "Keeping up" with other students in class	4.33	4
	31	51. Learning to set better goals for myself	4.33	4
	35	52. Improving my motivation for college work	4.00	3
	38	11. Studying with other students	3.66	3
	39	34. Improving my social interactions with other students	3.66	3
	40	35. A place to study at home	3.66	5
Psychological Impediments	46	53. Reducing my uneasiness about going to college	3.33	1
	34	57. Fear of appearing awkward	4.66	5
	32	60. Disapproval by significant others	4.33	5
	37	59. Fear of appearing unintelligent	4.00	5
<u>Provider</u>				
Institutional Support Services	17	18. Being able to get occupational counseling	4.66	5
	25	25. Financial aid	4.33	5
	36	31. Extracurricular activities	4.00	5
	43	2. Bus service to the campus	2.08	1
Institutional Curricular Services	23	14. Being able to take a variety of courses before deciding on a major field of study	4.33	5
	24	23. Being able to obtain credit for out-of-college experiences	4.33	5
	41	40. Weekend classes	3.66	5
	44	20. Courses providing specific skills that will be useful on a job	2.88	5
Instructional Patterns	21	36. Instructors who are relaxed and informal in the classroom	4.66	5
	22	13. Instructors who have a realistic view of my responsibilities outside class	4.33	4
	42	46. Courses with many class discussions	3.66	3
	45	30. Instructors who provide more than one way to meet course requirements	3.66	3

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 58

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 6* THIRD ORDER NEEDS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.0	0
Personal Development	47	54. Students my own age in my classes	3.33	1
Psychological Impediments	48	62. Lack of time for home responsibilities	3.33	5
	49	63. Loss of contact with old friends	3.33	5
	59	58. Family feeling neglected	2.00	1
<u>Provider</u>				
	51	17. Tutoring services	3.00	3
Institutional Support Services	52	37. Evening and weekend registration	3.00	4
	57	15. A campus tour during my first semester	2.66	1
	58	47. Child care facilities on campus	2.66	1
Institutional Curricular Services	50	3. Being able to take a course as an independent study	3.00	3
	53	9. Evening classes	3.00	2
	60	12. Being able to take a course with "pass-fail" grading instead of "A to F" grading	1.66	1
	62	43. Off-campus courses	1.66	1
Instructional Patterns	54	49. Encouragement from my instructors	3.00	0
	55	5. The use of films, tapes, and other audio-visual materials in a course	2.66	1
	56	45. Instructors who let students decide what should be covered in a course	2.00	1
	61	33. Instructors who modify the course outline to satisfy student interests	1.66	0

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 59

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 7* FIRST ORDER NEEDS (TOP 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	4	48. Improving my vocabulary skills	4.4	5
	5	8. Improving my study skills	4.20	4
	10	56. Improving my reading skills	4.20	4
	12	39. Learning to give better oral reports	4.00	4
Personal				
Development	14	52. Improving my motivation for college work	4.00	4
	15	7. Learning to organize my time better	3.80	3
	16	24. Improving my concentration	3.80	3
Psychological Impediments			0.0	0
<u>Provider</u>				
Institutional Support Services	3	22. Speedy registration procedures	4.40	5
	8	31. Extracurricular activities	4.20	4
Institutional Curricular Services	1	20. Courses providing specific skills that will be useful on a job	4.80	5
	11	23. Being able to obtain credit for out-of- college experiences	4.00	3
Instructional Patterns	2	4. Instructors who are personally interested in my progress	4.50	4
	6	13. Instructors who have a realistic view of my responsibilities outside class	4.20	4
	7	28. Instructors who use many examples in their teaching	4.20	4
	9	36. Instructors who are relaxed and informal in the classroom	4.20	4
	13	46. Courses with many class discussions	4.00	4

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Top priority items, marked high in importance, top 25 percent.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 60

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 7* SECOND ORDER NEEDS (MIDDLE 50 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills	18	27. Improving my note-taking skills	3.80	4
	31	16. Learning to prepare better term papers	3.40	3
	33	41. Improving my writing skills	3.40	4
	35	51. Learning to set better goals for myself	3.40	4
Personal Development	20	44. Getting "A's" and "B's" in my courses	3.80	5
	23	19. Encouragement from my family	3.60	4
	27	21. Working with other students on class projects	3.60	4
	28	34. Improving my social interactions with other students	3.60	3
	30	11. Studying with other students	3.40	4
	36	42. "Keeping up" with other students in class	3.40	4
	40	26. "Fitting in" with other students	3.00	2
	41	29. Learning to cope with failure	3.00	3
	42	35. A place to study at home	3.00	1
	46	53. Reducing my uneasiness about going to college	2.80	4
Psychological Impediments	22	63. Loss of contact with old friends	3.80	5
	43	61. Lack of acceptance by students or co-workers	.	
<u>Provider</u>				
Institutional Support Services	17	25. Financial aid	3.80	3
	21	1. A place to study on campus	3.80	3
	24	6. Preregistration	3.75	5
	44	18. Being able to get occupational counseling	2.80	3
Institutional Curricular Services	25	12. Being able to take a course with "pass-fail" grading instead of "A to F" grading	3.60	3
	26	50. Summer classes	3.60	4
	37	3. Being able to take a course as an independent study	3.20	3
	39	14. Being able to take a variety of courses before deciding on a major field of study	3.00	2
Instructional Patterns	19	45. Instructors who let students decide what should be covered in a course	3.80	3
	29	30. Instructors who provide more than one way to meet course requirements	3.60	4
	32	33. Instructors who modify the course outline to satisfy student interests	3.40	3
	34	49. Encouragement from my instructors	3.40	4
	38	55. Instructors who follow the course outline very closely	3.20	4
	45	32. Being able to take "re-tests" to improve my grade	2.80	3

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, *The Adult Life Cycle Training Manual and Reader* (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of medium importance; items whose means clustered around the midpoint of the overall study.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 61

NEED TAXONOMY OF UNIVERSITY OF TENNESSEE STUDENTS (TOTAL SAMPLE) GROUPED ACCORDING TO TASK CATEGORY NO. 7* THIRD ORDER MEANS (BOTTOM 25 PERCENT)**

Facet	Rank Order	Item from the SURVEY OF STUDENT NEEDS	Mean	Mode
<u>Learner</u>				
Academic Survival Skills			0.0	0
Personal Development	53	54. Students my own age in my classes	2.2	1
Psychological Impediments	47	62. Lack of time for home responsibilities	2.80	3
	52	60. Disapproval by significant others	2.60	3
	57	58. Family feeling neglected	2.00	2
	58	59. Fear of appearing unintelligent	1.80	1
	61	57. Fear of appearing awkward	1.60	2
<u>Provider</u>				
Institutional Support Services	51	17. Tutoring services	2.60	3
	54	2. Bus service to the campus	2.00	1
	55	15. A campus tour during my first semester	2.00	2
	56	37. Evening and weekend registration	2.00	1
	62	47. Child care facilities on campus	1.20	1
Institutional Curricular Services	49	9. Evening classes	2.60	1
	50	10. Being able to drop a course at any time without receiving a penalty grade	2.60	1
	59	40. Weekend classes	1.60	2
	60	43. Off-campus courses	1.60	2
Instructional Patterns	48	5. The use of films, tapes, and other audio-visual materials in a course	2.75	2

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

**Items designated as being of low or no importance; items whose means were ranked in the bottom 25 percent of the "Survey of Student Needs."

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

6. ADULT LIFE STAGES: AGE GRADIENT MEASURES VS. TASK CATEGORIES

Objective 4: Categorization of adult students (NTAS into developmental stages.

Objective 4 involves categorization of adults into developmental stages using frequency analysis as well as Kruskal-Wallis test results. Two factors contribute to human development, biological and social/psychological factors. According to Neugarten and Moore (in Neugarten, 1974:5):

. . . in all societies, age is one of the important factors in determining the ways people behave toward each other. Certain biological and social events come to be regarded as significant punctuation marks in the life line and to signify the transition points from one age status to the next. . . . In all societies age-status systems emerge, in which duties, rights, and rewards are differentially distributed to age groups which themselves have been socially defined.

In this study biological aspects were defined by the age categories (Item 2, Section II, "Survey of Student Needs"), whereas task-categories defined the social psychological factors (variable (item 18, Section II, "Survey of Student Needs," in Appendix A). Subsequent organization of subjects into life-stages was achieved through application of these two measures, age categories and task categories. The task and age categories were taken from the McCoy model (1978). This model is presented in Table 62. Table 63 presents further enumeration of aspects pertaining to the McCoy model. This model postulates a direct relationship between the age-gradient (biological) measurement and task (psychological/social)

TABLE 62
REVIEW OF ADULT LIFE CYCLE STAGES

Developmental Stages	Tasks
Leaving Home 18-22	Break psychological ties Choose careers Enter work Handle peer relationships Manage home Manage time Adjust to life on own Problem solve Marriage stress accompanying change
Reaching Out 23-28	Select mate Settle in work, begin career ladder Parent Become involved in community Consume wisely Hometown Socially interact Achieve autonomy Problem solve Manage stress accompanying change
Questions/Questions 29-34	Search for personal values Reappraise relationships Progress in career Accept growing children Put down roots, achieve "permanent" home Problem solve Manage stress accompanying change
Midlife Explosion 35-43	Search for meaning Reassess marriage Reexamine work Relate to teenage children Relate to aging parents Reassess personal priorities and values Adjust to single life Problem solve Manage stress accompanying change
Settling Down 44-55	Adjust to realities of work Launch children Adjust to empty nest

TABLE 62 (continued)

Developmental Stages	Tasks
	Become more deeply involved in social life Participate actively in community concerns Handle increased demands of older parents Manage leisure time Manage budget to support college-age children and ailing parents Adjust to single state Problem solve Manage stress accompanying change
The Mellowing 56-64	Adjust to health problems Deepen personal relations Prepare for retirement Expand avocational interests Finance new leisure Adjust to loss of mate Problem solving Manage stress accompanying change
Retirement 65+	Disengage from paid work Reassess finances Be concerned with personal health care Search for new achievement outlets Manage leisure time Adjust to more constant marriage companion Search for meaning Adjust to single state Be reconciled to death Problem solve Manage stress accompanying change

Source: Adult Life Cycle Tasks prepared by Vivian Rogers McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle, Training Manual and Reader (Lawrence: University of Kansas, 1979), pp. 13-14.

TABLE 63

ADULT LIFE CYCLE TASKS/ADULT CONTINUING EDUCATION PROGRAM RESPONSE *

Developmental Stages	Tasks	Program Response	Outcomes Sought
Leaving Home 18-22	1. Break psychological ties 2. Choose careers 3. Enter work 4. Handle peer relationships 5. Manage home 6. Manage time 7. Adjust to life on own 8. Problem solve 9. Manage stress accompanying change	1. Personal development, assertive training workshops 2. Career workshops, values clarification, education/career preparation 3. Education/career preparation 4. Human relations groups 5. Consumer education/homemaking skills 6. Time/leisure use workshop 7. Living alone; successful singles workshops 8. Creative problem solving workshops 9. Stress management, biofeedback, relaxation, TM workshops	1. Strengthened autonomy 2. Appropriate career decisions 3. Successful education/career entry 4. Effective social interaction 5. Informed consumer, healthy homelife 6. Wise use of time 7. Fulfilled single state, autonomy 8. Successful problem solving 9. Successful stress management, personal growth
Becoming Adult 23-28	1. Select mate 2. Settle in work, begin career ladder 3. Parent 4. Becoming involved in community 5. Consume wisely 6. Hometown 7. Socially interact 8. Achieve autonomy 9. Problem solve 10. Manage stress accompanying change	1. Marriage workshops 2. Management, advancement training 3. Parenting workshops 4. Civic education; volunteer training 5. Consumer education, financial management training 6. Homeowning, maintenance workshops 7. Human relations groups, TA 8. Living alone, divorce workshops 9. Creative problem solving workshops 10. Stress management, biofeedback, relaxation TM workshops	1. Successful marriage 2. Career satisfaction and advancement 3. Effective parents; healthy offspring 4. Informed, participating citizen 5. Sound consumer behavior 6. Satisfying home environment 7. Social skills 8. Fulfilled single state, autonomy 9. Successful problem solving 10. Successful stress management, personal growth
Catch-30 29-34	1. Search for personal values 2. Reappraise relationships 3. Progress in career 4. Accept growing children 5. Put down roots, achieve "permanent" home 6. Problem solve 7. Manage stress accompanying change	1. Values clarification 2. Marriage counseling and communication workshops; human relations groups; creative divorce workshops 3. Career advancement training, job redesign workshops 4. Parent-child relationship workshops 5. Consumer education 6. Creative problem solving workshops 7. Stress management, biofeedback, relaxation, TM workshops	1. Examined and owned values 2. Authentic personal relationships 3. Career satisfaction, economic reward, a sense of competence and achievement 4. Growth producing parent-child relationships 5. Sound consumer behavior 6. Successful problem solving 7. Successful stress management, personal growth

TABLE 63 (continued)

Developmental Stages	Tasks	Program Response	Outcomes Sought
Midlife Re-examination 35-43	1. Search for meaning 2. Reassess marriage 3. Reexamine work 4. Relate to teenage children 5. Relate to aging parents 6. Reassess personal priorities and values 7. Adjust to single life 8. Problem solve 9. Manage stress accompanying change	1. Search for meaning workshops 2. Marriage workshops 3. Mid-career workshops 4. Parenting: focus on raising teen-age children 5. Relating to aging parents workshops 6. Value clarification; goalsetting workshops 7. Living alone, divorce workshops 8. Creative problem solving workshops 9. Stress management, biofeedback, relaxation, TM workshops	1. Coping with existential anxiety 2. Satisfying marriages 3. Appropriate career decisions 4. Improved parent-child relations 5. Improved child-parent relations 6. Autonomous behavior 7. Fulfilled single state 8. Successful problem solving 9. Successful stress management, personal growth
Restabilization 44-55	1. Adjust to realities of work 2. Launch children 3. Adjust to empty nest 4. Become more deeply involved in social life 5. Participate actively in community concerns 6. Handle increased demands of older 7. Manage leisure time 8. Manage budget to support college-age children and aging parents 9. Adjust to single state 10. Problem solve 11. Manage stress accompanying change	1. Personal, vocational counseling, career workshops 2. Parenting education 3. Marriage, personal counseling workshops 4. Human relations groups 5. Civic and social issues education 6. Gerontology workshops 7. Leisure use workshops 8. Financial management workshops 9. Workshops on loneliness and aloneness 10. Creative problem solving workshops 11. Stress management, biofeedback, relaxation, TM workshops	1. Job adjustment 2. Civil letting go parental authority 3. Exploring new sources of satisfaction 4. Effective social relations 5. Effective citizenship 6. Better personal and social adjustment of elderly 7. Creative use of leisure 8. Sound consumer behavior 9. Fulfilled single state 10. Successful problem solving 11. Successful stress management, personal growth
Preparation for Retirement 56-64	1. Adjust to health problems 2. Deepen personal relations 3. Prepare for retirement 4. Expand avocational interests 5. Finance new leisure 6. Adjust to loss of mate 7. Problem solving 8. Manage stress accompanying change	1. Programs about nutrition, health 2. Human relations groups 3. Preretirement workshops 4. Art, writing, music courses in performing and appreciation; sponsored educational travel 5. Money management training 6. Workshops on aloneness and loneliness, death and dying 7. Creative problem solving workshops 8. Stress management, biofeedback, relaxation, TM workshops	1. Healthier individuals 2. Effective social skills 3. Wise retirement planning 4. Satisfaction of aesthetic urge; broadening of knowledge; enjoyment of travel 5. Sound consumer behavior 6. Adjustment to loss, fulfilled single state 7. Successful problem solving 8. Successful stress management, personal growth

TABLE 63 (continued)

Developmental Stages	Tasks	Program Response	Outcomes Sought
Retirement 65+	1. Disengage from paid work 2. Reassess finances 3. Be concerned with personal health care 4. Search for new achievement outlets 5. Manage leisure time 6. Adjust to more constant marriage companion 7. Search for meaning 8. Adjust to single state 9. Be reconciled to death 10. Problem solve 11. Manage stress accompanying change	1, 4, 5, 6. Workshops on retirement, volunteering, aging; conferences on public issues affecting aged 2. Financial management training 3. Health care programs 7. Religious exploration 8. Workshops on aloneness and loneliness 9. Death and dying workshops 10. Creative problem solving workshops 11. Stress management, biofeedback, relaxation, TM workshops	1, 4, 5, 6. Creative, active retirement; successful coping with life disengagement; public policies responsive to needs of aged 2. Freedom from financial fears 3. Appropriate health care 7. Help in search for life's meaning, value of past life 8. Fulfilled single state 9. Philosophic acceptance of death, help caring for dying and handling of grief 10. Successful problem solving 11. Successful stress management, personal growth

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categories. For example, age group one (ages 18-22) is defined and circumscribed by the activities described in task category one. Hence, the assumption is made that if a person were within the first age group (age 18-22), he/she would choose task group one as an appropriate descriptor of his/her prevailing life activities. In this study, however, such coincidental relationships between task and age category are not necessarily asserted. Frequency distributions, measures of central tendency, and Kruskal-Wallis tests were used to determine the strength and direction of the age/task coordinates. Histograms representative of frequency distributions as related to the age and task coordinates are presented in Figures 3 and 4.

The histograms suggest a divergence from the model as it was postulated by McCoy. The age and ALSTC correlates should vary at approximately the same rate and in the same direction. The largest number of respondents are in the first age group. According to the McCoy model a commensurate number of respondents should have selected ALSTC-1. The tasks described in ALSTC-1 describe the supposed activities of age category one. In this sample, however, such a coincidental relationship between age and ALSTC was not evident. The largest number of responses was to ALSTC-2, as opposed to ALSTC-1, which had the largest number of respondents. Fourteen respondents chose ALSTC-7, retirement, as being most characteristic of their present life activities; however, no subjects selected age category seven which, according to the McCoy model, corresponds to ALSTC-7.

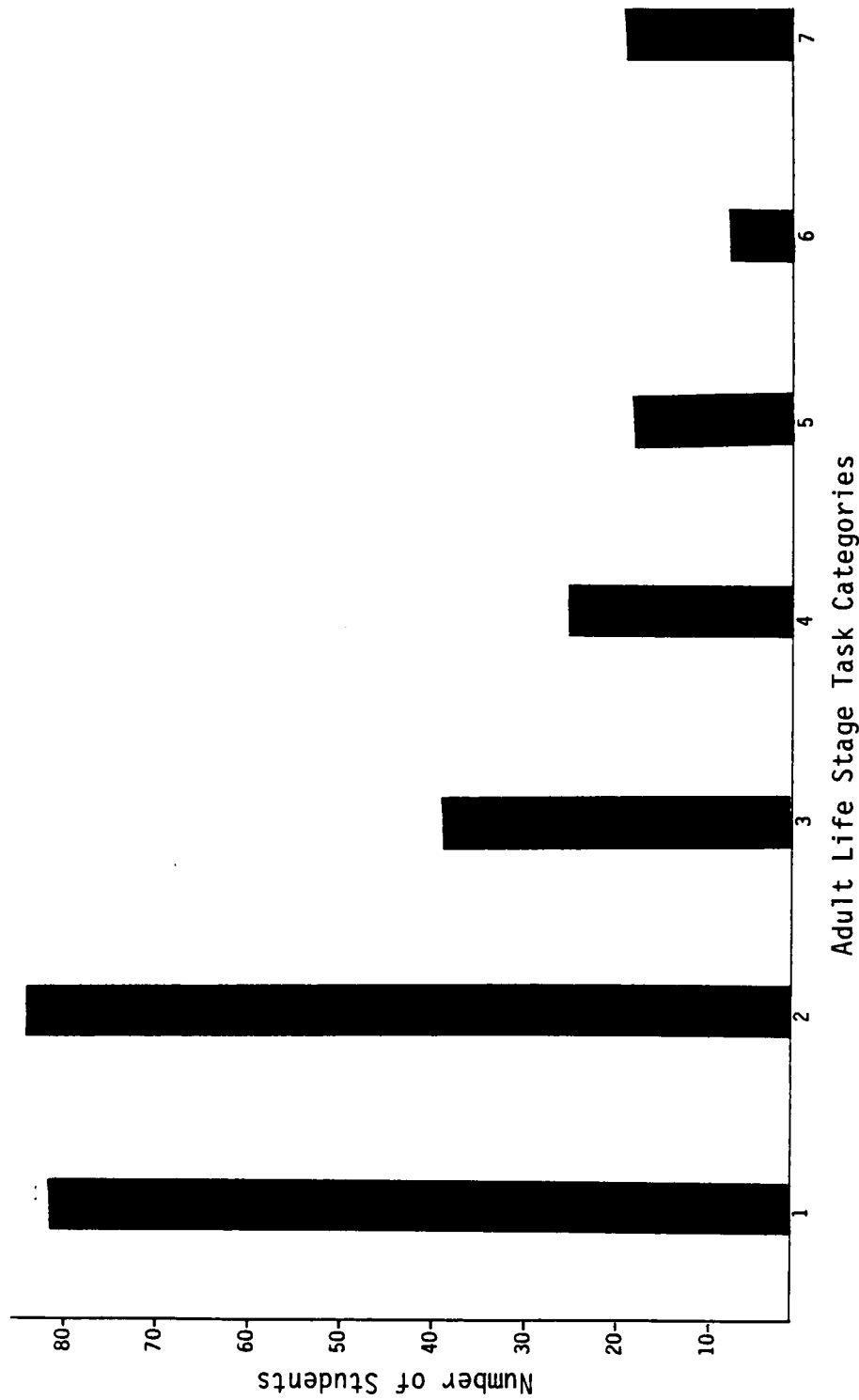


Figure 3. Response Rates of Subjects from The University of Tennessee (1981-82) to Adult Life Stage Task Categories*

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

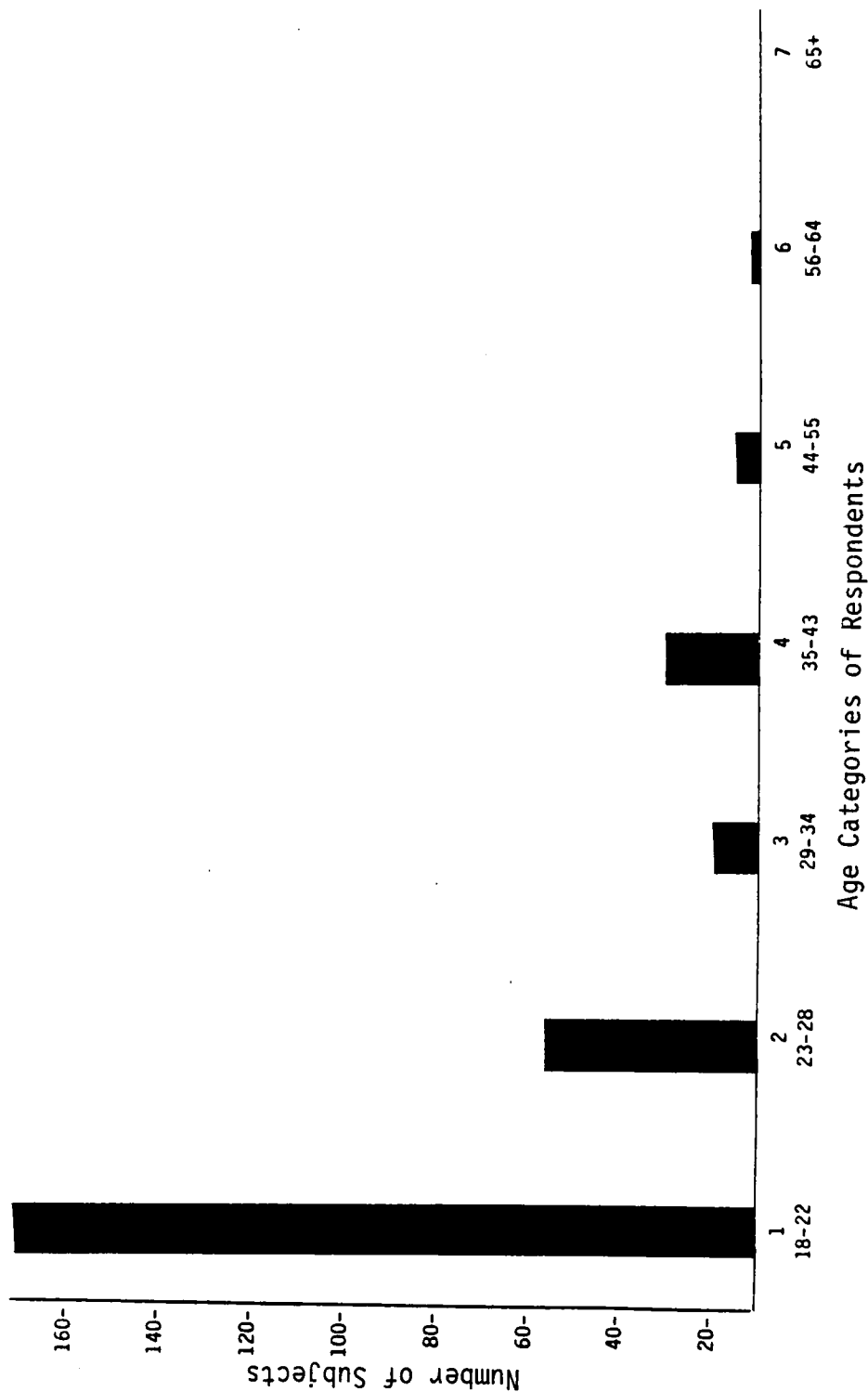


Figure 4. Response Rate of Subjects from The University of Tennessee (1981-82) to Age Categories*

*Defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), p. 229.

Table 64 presents a comparison of age and ALSTC, listing the number and percent of respondents per category.

Four hypotheses and five sub-hypotheses from the Kruskal-Wallis tests pertain to this section and are concerned with subject response rates to age and task categories. The relevant null hypotheses are as follows:

H₀ 1: There is no difference among the average H scores of the seven adult life stage task categories (ALSTC); therefore, the needs of students do not differ according to adult life stages

H₀ 1-A(1): There is no difference among the average H scores of female NTAS in respect to the ALSTC.

H₀ 1-A(2): There is no difference among the average H scores of NTAS male respondents in the various ALSTC.

H₀ 1-B(1): There is no difference among the average H scores of TAS females in respect to ALSTC.

H₀ 1-B(2): There is no difference among the average H scores of TAS male respondents in the various ALSTC.

H₀ 1-C: There is no difference among the average H scores of NTAS in respect to ALSTC.

H₀ 1-D: There is no difference among the average H scores of TAS in relation to ALSTC.

H₀ 4: There is no difference among the average H scores of students from the different age groupings (see Part II, Question 2, Survey of Student Needs, Appendix A).

TABLE 64

A COMPARISON OF AGE AND TASK CATEGORY RESPONSE RATES

No.	Age Category	Response Rate		Task Category	Response Rate	
		No.	Percent		No.	Percent
1	18-22	174	60.6	Leaving home	83	28.9
2	23-28	53	18.5	Reaching out	87	30.3
3	29-34	17	5.9	Questions	38	13.2
4	35-43	27	9.4	Midlife explosion	24	8.4
5	44-55	10	3.5	Settling down	16	5.6
6	56-64	6	2.1	Mellowing	16	5.6
7	65+	0	0.0	Retirement	14	4.9
Totals		287*	100.0		278*	97.0

*Some respondents (N=9) did not answer the task category items.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

H₀ 5: There is no difference among the average H scores of NTAS in various age groups.

H₀ 6-A: There is no difference among the average H scores of NTAS male students within various age groups (see Part II, Question 2, responses 2-7, Survey of Student Needs, Appendix A).

H₀ 6-B: There is no difference among the average H scores of NTAS female students within various age groups.

Table 65 presents a summary of test results for the nine relevant hypotheses and sub-hypotheses. Items marked with an X were significant at $\alpha \leq 0.10$. The items with significant between-group H scores differ from one null hypothesis to another, especially when comparing the null hypotheses pertaining to ALSTC issues to those concerned with the comparable age category issue.

7. SUMMARY: GENERAL

One of the primary objectives of this study was to define and describe the needs of university students as they relate to adult life stages. The results of the study were presented in five sections consistent with the specified objective of the study. Kruskal-Wallis tests and measures of central tendency provided the preponderance of information. The information derived from the measures of central tendency were used to compile the need taxonomies. These taxonomies prioritized perceived needs of the respondents into three levels, "First order" (top 25 percent), "Third Order" (the bottom 25 percent),

TABLE 65
ITEMS WITH SIGNIFICANT H SCORES BETWEEN GROUPS*

Item (Modified)	Is (N=287)		Female-NTAS		Male-NTAS		E-NTAS		F-TAS	M-TAS	E-TAS
	H ₁	H ₂	H ₁	H ₂	H ₁	H ₂	H ₁	H ₂	H ₁	H ₂	H ₁
	ALSTC	Age Cat.	ALSTC	Age Cat.	ALSTC	Age Cat.	ALSTC	Age Cat.	ALSTC	ALSTC	ALSTC
1. A place to study on campus	x	x	x		x	x	x	x			
2. Bus service to the campus										x	
3. Independent study		x	x								
4. Instructors are personally interested					x						
5. A-V materials in course		x			x			x		x	x
6. Preregistration	x	x			x				x		
7. Learning to organize time better		x									
8. Improving study skills		x									
9. Evening classes	x	x		x		x	x	x			
10. Dropping course without penalty	x	x									
11. Studying with other students	x	x				x		x			
12. Pass-fail grading		x	x			x					
13. Instructors have realistic view		x									
14. Taking a variety of courses									x		
15. Campus tour		x									
16. Learning to prepare better term papers		x									
17. Tutoring services		x	x								
18. Occupational counseling		x							x		
19. Encouragement from family		x	x								
20. Courses providing specific job skills											
21. Working with other students	x	x									
22. Speedy registration procedures		x			x				x		
23. Credit for out-of-college-experiences		x			x				x		
24. Improving concentration		x	x	x		x					
25. Financial aid		x	x	x							
26. "Fitting in" with other students	x	x				x			x		
27. Improving note-taking skills		x			x						
28. Instructors use many examples	x	x									
29. Learning to cope with failure					x			x			
30. Instructors provide alternatives	x					x		x	x		
31. Extracurricular activities	x	x									
32. Taking "re-tests" to improve grade		x								x	x
33. Instructors modify course outline	x	x			x			x			
34. Improving social interactions	x	x			x	x	x	x			
35. A place to study at home			x								
36. Instructors are relaxed and informal	x	x			x			x	x		
37. Evening and weekend registration		x		x							
38. Improving memory						x					
39. Learning to give better oral reports						x		x		x	x
40. Weekend classes	x	x			x	x	x	x			
41. Improving writing skills					x						
42. "Keeping up" with other students	x	x				x	x	x			
43. Off-campus courses	x	x		x		x	x	x	x		x
44. Getting "A's" and "B's" in courses	x	x			x						
45. Instructors let student design course		x				x					
46. Discussion classes								x	x		
47. Child care facilities on campus		x				x					
48. Improving vocabulary skills		x			x	x					
49. Encouragement from instructors	x				x			x	x		
50. Summer classes		x				x			x		
51. Learning to set better goals		x									
52. Improving motivation for college work		x				x			x		
53. Reducing uneasiness		x		x		x			x		
54. Age-mates in classes		x				x					
55. Instructors follow course outline		x									
56. Improving reading skills				x						x	x
57. Fear of appearing awkward	x	x				x		x			
58. Family feeling neglected						x					
59. Fear of appearing unintelligent		x						x			
60. Disapproval by significant others										x	
61. Lack of acceptance by students or co-workers		x									
62. Lack of home responsibilities			x				x	x	x		
63. Loss of contact with old friends	x	x									

*From "Survey of Student Needs," see Appendix A.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982 for "Needs of Adult University Students as Related to Adult Life Stages."

and "Second Order" (middle scores). Items in the first order represented those which were considered most important, whereas third order needs were of low importance.

CHAPTER V

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The central problem of this study was to answer the question: Do the needs of students differ significantly according to biological and perceived psychological/sociological life stages? In addressing this question a major hypothesis evolved:

1. There is no difference among the average H scores of seven adult life stage categories (ALSTC); therefore, the needs of students do not differ according to adult life stages.

The study explored relationships between stated needs and adult life-stage categories (ALSTC). Results should aid in development of appropriate curricular, support services, and counseling for non-traditional aged students (NTAS) and traditional aged students (TAS).

Multiplicity of variables and diversity of research questions necessitated several levels of analysis. Discussion of the results of this study corresponded with the order in which statistical tests were applied. The order, which parallels the research objectives, was as follows:

1. Findings, discussion, analysis and interpretation of Kruskal-Wallis tests and the attendant eight hypotheses and sub-hypotheses.
2. Summary and discussion of Needs Taxonomies for NTAS and all of the subjects, according to ALSTC.

3. Discussion of any statistical test results applicable to analysis of the McCoy Task model.

1. FINDINGS, SUMMARY, AND INTERPRETATION OF
KRUSKAL-WALLIS TEST RESULTS

Kruskal-Wallis tests were administered to determine whether there were between-group differences in response ratings. The eight hypotheses and eight sub-hypotheses postulated no significant differences between groups. The differences measured were ranked grouped means for individual questions concerning student needs. Subjects responded to each item on the "Survey of Student Needs" according to the following:

- 1 = Of No Importance
- 2 = Of Low Importance
- 3 = Of Medium Importance
- 4 = Of High Importance
- 5 = Of Very High Importance

If the Kruskal-Wallis test of a particular question on the "Survey of Student Needs" provided a statistically significant result, then differences in response ratings occurred among or between the groups studied. The actual mean response rate, or the ranking of items in terms of importance, was addressed in the needs taxonomies (see pages 135-176, Chapter IV) and later in this chapter. The null hypothesis was rejected if over 15 percent of the 65 items from the "Survey of Student Needs" had significant between-group H scores.

Fifteen percent was considered a conservative level of rejection. In their discourse on tests of significance for series of statistical tests (1954), Sakoda, Cohen, and Beal suggested that about seven of 67 need items (10 percent) would be expected to be significant by chance (Sakoda, Cohen, & Beal, 1954:172-175). The discussion in this section proceeds as follows:

1. Statement of null hypotheses and sub-hypotheses with a discussion and interpretation of test results according to the various item-facet categories.

2. General discussion comparing group test results.

H₀ 1: Total Number of Subjects vs. Adult Life Stage Task Categories (ALSTC). There is no difference among the average H scores of the seven ALSTC; therefore, the needs of students do not differ according to adult life stages. (REJECTED)

Over 31 percent (31.7) of the items on the "Survey of Student Needs" had significant H scores; hence, student needs differed according to adult life stages 31.7 percent of the time. The area wherein the greatest divergence occurred was the Personal Development facet (six items with significant between-group scores).

H₀ 1-A(1): Female NTAS vs. ALSTC. There is no difference among the average H scores of female NTAS with respect to the ALSTC. (NOT REJECTED)

Only 14.3 percent of the 63 items (nine items) had significant H scores. Female NTAS generally demonstrated unanimity of response

rates and test results, in general, supported the null hypothesis that the needs of female NTAS do not vary appreciably over the seven ALSTC.

H₀ 1-A(2): Male NTAS vs. ALSTC. There is no difference among the average scores of male NTAS with respect to the seven ALSTC. (REJECTED)

There were twice as many male NTAS differences as female NTAS differences (28 percent) on the "Survey of Student Needs" with respect to ALSTC. This indicates that male NTAS respondents displayed greater diversity over the adult life stages than female NTAS. The needs of NTAS males are more diverse and change over the adult life line.

H₀ 1-B(1): Female TAS vs. ALSTC. There is no difference among the average H scores of TAS females with respect to ALSTC. (NOT REJECTED)

Ten items (15.9 percent) produced significant between-group H scores. The results indicated a high degree of stability among the response rates of the female TAS with respect to needs. The low number of significant items indicated that the needs of female TAS respondents do not vary considerably; results tend to verify the null hypothesis.

H₀ 1-B(2): Male TAS vs. ALSTC. There is no difference among the average H scores of TAS male respondents in the various adult life stage task categories (ALSTC). (NOT REJECTED)

The male TAS group has only six items (9.5 percent) with significant between-group differences. The low number of significant items supports the null hypothesis; needs of male TAS do not vary appreciably over the ALSTC. However, 33 percent of the subjects selected ALSTC-2 as indicative of their present life tasks; this task group purports to describe life activities of adults from the ages of 23 to 28 years. Fifty-eight respondents (63.7 percent) chose adult life stages purporting to describe the life activities of adults ages 23 to 65+, but the TAS male group ranged from 18 to 22 years. A surprising 5.5 percent of the TAS males chose ALSTC-7, which included the following tasks:

. . . disengage from paid work, reassess finances, be concerned with personal health care, search for new achievement outlets, manage leisure time, adjust to more constant marriage companion, search for meaning, adult to single state, be reconciled to death, problem solve, and manage stress accompanying change (McCoy, 1977:13-14).

Male TAS demonstrated diversity in terms of classification in two ALSTC but in terms of actual needs they were in agreement.

H₀1-C: NTAS vs. ALSTC. There is no difference among the average H scores of NTAS in respect to the seven ALSTC. (REJECTED)

The NTAS group demonstrated considerable diversity over the life line, with respect to ALSTC. Just over 22 percent of the items had significant H scores. The item facets with the greatest number of significant items were Institutional Curricular Services and Personal

Development. These figures support the thesis that the needs of NTAS do vary with respect to certain facet areas over the seven adult life stage categories.

H₀ 1-D: TAS vs. ALSTC. There is no difference among the average H scores of TAS in relation to the seven ALSTC.

(NOT REJECTED)

In contrast to NTAS, TAS (n=173) demonstrated a great deal of uniformity with respect to expressed needs. Only six items out of 63 (9.6 percent) had significant between-group H scores. The test results support the null hypothesis, asserting that the needs of TAS do not differ with respect to ALSTC. The high degree of uniformity may be indicative of the "age-segregated environment" of TAS. Kimmel discusses the phenomenon of the "age-segregated environment" of a university. He said:

The period of youth has been stretched out so that it now extends into the mid-twenties for many young people. This provides more time to question and to evaluate society and social values from a position of (often) economic security, personal freedom, and intellectual inquiry. It also provides growing numbers of young people who are attending college (over 8 million today) with an age-segregated environment. This means that there is little contact with people of grandparental age, almost no contact with people of parental age (such as teachers and professors--an atypical type of adult). One result of such an environment is to stimulate the growth of shared values and attitudes among college-age young people through mutual socialization by peers rather than the more traditional intergenerational socialization. The result is what may be termed a de-facto youth culture (Kimmel, 1980:27-28).

H₀ 2: Male vs. Female. There is no difference among the average H scores of men and women; therefore, the needs

of male students do not differ significantly from those of female students. (REJECTED)

Men and women displayed considerable diversity in their response rates, hence the expressed needs of men and women did differ. On 36.5 percent (23 items) of the 63 items there were significant between-group H scores. Several facet areas had several items with significant H scores: Psychological Impediments, Personal Development, Institutional Support Services, Academic Survival Skills, and Instructional Patterns. Males and females agreed on the Institutional Curricular Services facet (no items with significant H scores), but differed on all seven items in the Psychological Impediments facet.

H₀ 3-A: NTAS Male vs. NTAS Female. There is no difference among the average scores of NTAS male students and NTAS female students. (REJECTED)

The response rates of NTAS males differed from those of NTAS females on 27 percent of the items (17 items). Two facet areas displayed considerable diversity (Personal Development, Psychological Impediments) and two others (Instructional Patterns and Institutional Curricular Services) had no items with significant between-group H scores. The expressed needs of NTAS males differ from those of NTAS females. The facet areas with the greatest number of items with significant between-group differences were the same as those reported for null hypothesis 2, males vs. females. The diversity between male and female NTAS respondents is supported by research conducted by Johnson (see page 43 of this study). Johnson's study

revealed differences between NTAS male and female needs and she suggested that campus programs and services needed "to be tailored differently for the two groups" (Johnson, ERIC: ED 165 600).

H₀ 3-B: TAS Male vs. TAS Female. There is no difference among the average H scores of traditional male students and traditional female students.

(NOT REJECTED)

Eight (12.7 percent) items displayed significant between-group H scores, hence the response rates of male TAS and female TAS showed considerable unanimity. These results closely parallel those reported for null hypothesis 1-D. The high uniformity of the response rates, even when comparing males and females, may be due to the "de-facto young culture" described by Kimmel (Kimmel, 1980:28).

H₀ 4: Σ s vs. Age Categories. There is no difference among the average H scores of students from the different age groupings (see Part II, Question 2, "Survey of Student Needs," Appendix A). (REJECTED)

Analysis for this hypothesis provided the greatest number of items (75 percent) with significant between-group H scores. The results rejected the hypothesis and supported the major thesis that the needs of students do vary over the life line according to age-gradient life-stages. All facet areas demonstrated considerable diversity with Institutional Support Services and Personal Development displaying the greatest number of items with significant between-group H scores.

H₀ 5: NTAS vs. Age Categories. There is no difference among the average H scores of NTAS in various age groups.

(REJECTED)

NTAS respondents displayed considerable diversity with respect to response rates over the age categories. Twenty-nine percent of the items were significant at $\alpha \leq 0.10$, hence differences in expressed needs as related to age categories were evident. The item facets with the largest number of items with significant H scores were: Personal Development, Institutional Curricular Services, and Institutional Support Services.

H₀ 6-A: NTAS Males vs. Age Categories. There is no difference among the average H scores of nontraditional male students within various age groups (see Part II, Question 2, responses 2-7, "Survey of Student Needs," Appendix A). (REJECTED)

The needs of male NTAS varied considerably over the age categories on 36.5 percent of the items. Needs of older male students vary over the life line. The areas of greatest divergence were: Personal Development, Academic Survival Skills, and Institutional Curricular Services.

H₀ 6-B. NTAS Female vs. Age Categories. There is no difference among the average H scores of nontraditional female students within various age groups. (NOT REJECTED)

Female NTAS respondents displayed great consistency in their response rates as related to age categories. The response rates

of NTAS females in null hypothesis 1-A(1) and this hypothesis are almost identical, displaying consistency of response rate. Table 66 displays the test results of the two hypotheses. The response rate similarities between the two hypotheses tend to support the McCoy model, wherein ALSTC are related to the specific age categories outlined in this study (see Section II, Question 2, "Survey of Student Needs," Appendix A).

H₀ 7: TAS Female (Within-Group Differences). There is no difference among the average H scores of TAS female students. (NOT REJECTED)

Only 7.9 percent of the items had significant between-group H scores. Such a low number of items with significant H scores indicates a high rate of cohesiveness. These test results might be viewed as further support of Kimmel's thesis concerning the "de-facto youth culture" among college-aged (TAS) youth.

H₀ 8: NTAS Female (Within-Group Differences). There is no difference among the average H scores of NTAS female student response rates. (NOT REJECTED)

NTAS females displayed the lowest number of items with between-group differences. Only two (3.2 percent) of the items had significant H values.

Summary of Kruskal-Wallis Test Results

Table 67 and Table 19, page 131, in Chapter IV provide summaries of significant items for all of the hypotheses. Greater differences existed between male-female response rates than between

TABLE 66
COMPARISON OF KRUSKAL-WALLIS TEST RESULTS FROM THE "SURVEY OF STUDENT NEEDS"
FOR H₀ 1-A(1) AND H₀ 6-B

Null Hypotheses and Sub-hypotheses	Academic Survival Skills (N=7)		Personal Development (N=16)		Psychological Impediments (N=7)		Institutional Support Services (N=11)		Institutional Curricular Services (N=10)		Instructional Patterns (N=12)		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
H ₀ 1-A(1): Female NTAS vs. ALSTC	0	0	3	18.8	0	0	3	30.0	2	20.0	0	0	9	14.3
H ₀ 6-B: NTAS Female vs. Age Categories	0	0	4	25.0	1	14.3	2	18.0	2	20.0	0	0	9	14.3

*Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 67
SUMMARY OF KRUSKAL-WALLIS ANALYSIS OF VARIOUS RESPONDENT
GROUPS ON "SURVEY OF STUDENT NEEDS"

Null Hypothesis	Items (of 63) with Between-group Differences		Reject	Not Reject
	No.	%		
H ₀ 1: Σs vs. ALSTC	21	31.7	x	
H ₀ 1-A(1): Female NTAS vs. ALSTC	9	14.3		x
H ₀ 1-A(2): Male NTAS vs. ALSTC	18	28.0	x	
H ₀ 1-B(1): Female TAS vs. ALSTC	10	15.9		x
H ₀ 1-B(2): Male TAS vs. ALSTC	6	9.6		x
H ₀ 1-C: NTAS vs. ALSTC	14	22.6	x	
H ₀ 1-D: TAS vs. ALSTC	6	9.6		x
H ₀ 2: Male vs. Female	23	36.5	x	
H ₀ 3-A: NTAS Male vs. NTAS Female	17	27.0	x	
H ₀ 3-B: TAS Male vs. TAS Female	8	12.7		x
H ₀ 4: Σs vs. Age Categories	47	75.0	x	
H ₀ 5: NTAS vs. Age Categories	18	29.0	x	
H ₀ 6-A: NTAS Male vs. Age Categories	23	36.5	x	
H ₀ 6-B: NTAS Female vs. Age Categories	9	14.3		x
H ₀ 7: TAS Female	5	7.4		x
H ₀ 8: NTAS Female	2	3.2		x

*Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

any other of the groups. Review of data for H₀ 2 will help to clarify the male vs. female differences. The existence of large differences between male and female student needs was verified by other studies. For example, Lance, Lourie, and Mayo (1979:481) reported significant differences in male and female needs for student services. Likewise, Lowenthal (1975:217) described "dramatic sex differences" in the needs, goals and problems of men and women. She said:

Dramatic sex differences are a running theme, one recurring, with variations, across all four life stages. In fact, sex differences were consistently of a higher magnitude than life stage differences, and this was true in nearly all of the psychosocial areas covered in the very detailed interview sessions. Indeed, the life course trajectories--and in turn the needs, goals, and problems of men and women not only do not parallel each other, but at points seem to threaten a potential collision course (Lowenthal, 1975:217).

H₀ 3-A compared NTAS males vs. NTAS females; H₀ 3-B compared TAS males vs. TAS females. NTAS males vs. NTAS females had over twice as many items with significant between group differences than did the TAS groups. The TAS groups were more homogeneous in responses than the NTAS groups. The TAS group unity may reflect peer group cohesiveness of the young adult stage, especially with regard to the relatively secluded university atmosphere and its "age-segregated environment" (Kimmel, 1980:27). The wider age span of the NTAS group (ages 23 to 64) encompassing more life-stages, may help account for the large number of items with significant between-group differences. The unanimity of response rates for TAS females (H₀ 7) could indicate strong peer group orientation.

The greatest cohesiveness was manifest in response rates of NTAS females. Similar patterns of stable female response rates were noted by Malin, Bray, Dougherty, and Skinner (1980) in their research on factors affecting performance and satisfaction of adult male and female college students. They reported results that were not supportive of "the general contention that adult women have special problems in coping with the college experience (Brandenburg, 1974; Roach, 1976)" (Malin, Bray, Dougherty, & Skinner, 1980:126-127). Malin et al. stated that "in general, better performance, satisfaction, and positive affective changes were associated with being female, older, in a higher income bracket, out of school longer, and enrolled in technology" (Malin et al., 1980:123).

In contrast to NTAS females, male NTAS showed considerable diversity of response rates over ALSTC (the H_0 1-A(2) was rejected at 28 percent). The best explanation for this divergence in male NTAS response rates (as well as the divergence noted in NTAS response rates as a group, including males and females) was given by Knox. According to Knox (1977) "statistical evidence indicates that at least through the first six decades of life, as people grow older, they become increasingly different from each other" (Knox, 1977:11). This may likewise explain why the TAS response rates, male and female, were considerably more stable and reflected far less differences than did the response rates of the older NTAS groups.

The large number of statistically significant items (75 percent) for H_0 4 and for H_0 1 (31.7 percent) are supportive of the major

thesis that the needs of students do vary over the life line. The age categories (H₀ 4) demonstrated the greatest diversity and may be the better of the two measures of adult life stages (the two measures being ALSTC measured by H₀ 1 and age categories measured by H₀ 4). Several trends emerged from the test results:

1. Results, especially from H₀ 1 and H₀ 4 supported the major thesis of the study, which is, the needs of adult students vary over the life line according to adult life-stages.
2. The needs of males and females differ, but more so for NTAS than for TAS.
3. The response rates of TAS were stable and uniform, indicating a "de-facto youth culture" which unified the group in terms of expressed needs.
4. Female respondents, TAS and NTAS, showed high degrees of agreement. The response rates of NTAS female respondents were consistent from all vantage points (e.g. the results of analysis under H₀ 1-A(1) were very similar to H₀ 6-B).
5. The response rates of male NTAS show considerable variance and between-group differences over the life line. The male NTAS group differences over ALSTC and age categories were more than twice those of the female NTAS, male TAS, and female TAS.

2. TAXONOMY OF STUDENT NEEDS: OBJECTIVE 3, IDENTIFICATION AND
CATEGORIZATION OF THE PERCEIVED NEEDS OF NTAS (N=113)
AND TOTAL NUMBER OF STUDENTS (N=287)

Results obtained from measures of central tendency were used to construct a Taxonomy of Needs for nontraditional aged students (NTAS) and for the entire sample (TAS and NTAS). Responses to the 63 items from Section I of the "Survey of Student Needs" were ranked according to mean and mode, and then, the top 25 percent and the bottom 25 percent were designated as "First Order" and "Third Order" items, respectively. The "First Order," or top priority items, as well as the "Third Order," or lowest priority items (items rated by respondents as being "of no importance") are discussed in the ensuing sections. The discussions begin with a presentation of "First Order" items for NTAS and TAS, then the "Third Order" items for both groups are discussed and compared.

A Summary of NTAS First Order Needs

Respondents were grouped according to ALSTC selection. Table 68 displays the number and percent of NTAS and TAS respondents per ALSTC. The respondent needs, grouped according to seven ALSTC, were ranked and ordered according to the six facets. Top priority needs were placed in the "First Order." Four needs from the "Survey of Student Needs" were chosen as one of the top five needs by at least three of the seven ALSTC groups of NTAS. These four items were listed in the top five of the "First Priority group:

TABLE 68

SUMMARY OF RESPONSE RATES OF TRADITIONAL AGED STUDENTS (TAS, FEMALE, MALE, AND TOTAL, 18-22 YEARS) AND NONTRADITIONAL AGED STUDENTS (NTAS, FEMALE, MALE, AND TOTAL, 23+ YEARS) TO ALSTC (ADULT LIFE STAGE TASK CATEGORIES*)

Subject Groups	ALSTC-1 No.	ALSTC-1 %	ALSTC-2 No.	ALSTC-2 %	ALSTC-3 No.	ALSTC-3 %	ALSTC-4 No.	ALSTC-4 %	ALSTC-5 No.	ALSTC-5 %	ALSTC-6 No.	ALSTC-6 %	ALSTC-7 No.	ALSTC-7 %	No Response No.	No Response %	Total No.
Female																	
TAS	37	45.1	33	40.2	3	3.7	2	2.4	2	2.4	0	0	1	1.2	4	4.9	82
Male																	
TAS	24	26.4	30	33.0	8	8.8	10	11.0	2	2.2	3	3.3	5	5.5	9	9.9	91
Total																	
TAS	61	35.3	63	36.4	11	6.5	12	6.9	4	2.3	3	1.7	6	3.5	13	7.5	173
Female																	
NTAS	11	18.3	12	20.0	18	30.0	8	13.0	5	8.3	2	3.3	3	5.0	1	1.7	60
Male																	
NTAS	11	20.8	12	22.6	9	17.0	4	7.5	7	13.2	1	1.9	5	9.4	4	7.5	53
Total																	
NTAS	22	19.5	24	21.2	27	23.9	12	10.6	12	10.6	3	2.7	8	7.1	5	4.4	113
Total	83	29.0	87	30.4	38	13.3	24	8.4	16	5.6	6	2.1	14	4.9	6	2.1	286

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James M. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

1. Courses providing specific skills that will be useful on a job (ranked in the top five by five ALSTC groups of NTAS).
2. Instructors who are personally interested in my progress (ranked in the top five by four ALSTC groups).
3. A place to study on campus (ranked in top five by three ALSTC groups).
4. Speedy registration procedures (ranked in the top five by three ALSTC groups).

The first choice item for each of the seven life stage categories (ALSTC) are listed in Table 69.

In each facet certain items appeared rather consistently in the "First Order" lists (top 25 percent) for all seven ALSTC. These items, selected by two or more ALSTC groups, are listed in Table 70. The table shows that three items were selected as "First Order" needs by all seven task groups (ALSTC):

1. Improving my study skills.
2. Speedy registration procedures.
3. Instructors who are personally interested in my progress.

None of the NTAS in the seven ALSTC groups selected any items from the Psychological Impediments facet. The Psychological Impediments facet included such aspects as: fear of appearing awkward, family feeling neglected, disapproval by significant others, lack of acceptance by students or co-workers, lack of time for home responsibilities, and loss of contact with old friends. None of the NTAS selected any of these issues as first priority items.

TABLE 69

NONTRADITIONAL AGED STUDENTS (23+) FIRST CHOICE ITEMS FOR THE SEVEN
ADULT LIFE STAGE TASK CATEGORIES* FROM TAXONOMY OF
NONTRADITIONAL AGED STUDENT NEEDS

ALSTC	First Choice Item	Respondents	
		No.	%
1	Speedy registration procedures	22	19.5
2	Getting "A's" and "B's" in my classes	24	21.2
3	Preregistration	27	23.9
4	Improving my study skills	12	10.6
5	Encouragement from my family	12	10.6
6	A place to study on campus	3	2.7
7	Courses providing specific skills that will be useful on a job	8	7.1

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 70

TOP PRIORITY ITEMS SELECTED BY TWO OR MORE NONTRADITIONAL AGED STUDENT (NTAS, 23+)
GROUPS OF ADULT LIFE STAGE TASK CATEGORIES* REPORTED BY ITEM FACETS
OF TAXONOMY OF NTAS NEEDS

Facet	Frequently Selected Top Priority Item	ALSTC	
		No.	Items Selected
Academic Survival Skills	8. Improving my study skills	7	1-6
	39. Learning to give better oral reports	3	5,6,7
Personal Development	7. Learning to organize my time better	6	1-4,6,7
	19. Encouragement from my family	5	1-6
	24. Improving my concentration	5	1-4,7
	52. Improving my motivation for college work	5	1-4,7
	44. Getting "A's" and "B's" in my courses	3	1,2,6
Psychological Impediments		0	--
Institutional Support Services	22. Speedy registration procedures	7	1-7
	6. Preregistration	5	1-3,5,6
	1. A place to study on campus	4	3-6
	31. Extracurricular activities	2	2,7
	18. Being able to get occupational counseling	2	1,2
Institutional Curricular Services	20. Courses providing specific skills that will be useful on a job	6	1-5,7
Instructional Patterns	4. Instructors who are personally interested in my progress	7	1-7
	28. Instructors who use many examples in their teaching	5	1,2,4,6,7
	36. Instructors who are relaxed and informed in the classroom	5	1-4,7
	13. Instructors who have a realistic view of my responsibilities outside class	4	1-3,7
	49. Encouragement from my instructors	3	1,4,5
	33. Instructors who modify course outlines to satisfy student interests	2	1,2
	55. Instructors who follow the course outline	2	5,6

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

The selection of issues concerning preregistration and speedy registration by the older (NTAS) respondents concurs with the results of Mangano and Corrado's research (Mangano & Corrado, 1978:16-19). Mangano reported that "preregistration as well as speedy registration procedures" were "given higher ratings by older students" (Mangano & Corrado, 1978:16). Six of the seven ALSTC groups indicated interest in coursework leading to acquisition of job skills. Re-training or job preparation seems to be a prime motivator for study at the university. The facet area with the largest number of top priority items was Institutional Curricular Services, described by Mangano as "administrative procedures that establish the institutional context" (Mangano & Corrado, 1978:13).

A Summary of First Order Needs for the Total Sample

The top five items for the total sample were as follows:

1. Improving my study skills (ranked in top five by all seven ALSTC groups).
2. Instructors who are personally interested in my progress (ranked in top five by five ALSTC groups).
3. Getting "A's" and "B's" in my courses (ranked in top five by five ALSTC groups).
4. Courses providing specific skills that will be useful on a job (ranked in top five by four of the ALSTC).
5. Encouragement from my family (ranked in top five by three of the ALSTC groups).

6. Speedy registration procedures (ranked in top five by three of the ALSTC groups).

The first choice items for each of the seven ALSTC are listed in Table 71. Table 72 presents a list of items selected by two or more ALSTC groups as "First Order Needs." The Instructional Patterns facet had the most items in the "First Order." Three items were top priority items for all seven ALSTC:

1. Improving my study skills.
2. Speedy registration procedures.
3. Instructors who are personally interested in my progress.

As with the NTAS groups, there was considerable interest in speedy registration procedures and in preregistration. A high priority was also placed on instructors who were personally interested in a student's progress. Both groups, NTAS and the Total Subject Group, placed getting "A's" and "B's" as high priority items.

A Summary of NTAS "Third Order Needs (Bottom 25 Percent

Items that were ranked low, "of no importance," comprised the "Third Order." The bottom four choices for NTAS were as follows:

1. Child care facilities on campus (six of the seven ALSTC chose this item as one of the five least preferred items).
2. Off-campus courses (four ALSTC groups chose this as least preferred).
3. Weekend classes (selected by four ALSTC groups).
4. Bus services to campus (selected by three ALSTC groups).

TABLE 71
FIRST CHOICE ITEMS FOR THE SEVEN ADULT LIFE STAGE TASK CATEGORIES* (ALSTC)
BY THE TOTAL SAMPLE FROM TAXONOMY OF STUDENT NEEDS

ALSTC	First Choice Item	No. of Respondents Per Item	Percent Respondents Per Item
1	Courses providing specific skills that will be useful on a job	83	28.9
2	Preregistration	87	30.3
3	Getting "A's" and "B's" in my courses	38	13.2
4	A place to study on campus	24	8.4
5	Speedy registration procedures	16	5.6
6	Encouragement from my family	6	2.1
7	Getting "A's" and "B's" in my courses	14	4.9

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

TABLE 72

TOTAL SUBJECTS: TOP PRIORITY ITEMS SELECTED BY TWO OR MORE GROUPS OF
ADULT LIFE STAGE TASK CATEGORIES (ALSTC)* (REPORTED BY ITEM FACETS)
FROM TAXONOMY OF STUDENT NEEDS

Facet	Frequently Selected Top Priority Item	ALSTC	
		No.	Items Selected
Academic Survival Skills	8. Improving my study skills	7	1-7
	27. Improving my note-taking skills	3	1,4,5
	39. Learning to give better oral reports	3	5-7
Personal Development	7. Learning to organize my time better	6	1-4,6,7
	44. Getting "A's" and "B's" in my courses	5	1,2,4-6
	19. Encouragement from my family	5	1,3-6
	24. Improving my concentration	4	2-4,7
Psychological Impediments		0	--
Institutional Support Services	22. Speedy registration procedures	7	1-7
	6. Preregistration	5	1-3,5,6
	1. A place to study on campus	3	4-6
	31. Extracurricular activities	3	2,5,7
Institutional Curricular Services	20. Courses providing specific skills that will be useful on a job	6	1-5,7
	10. Being able to drop a course at any time without receiving a penalty grade	2	5,6
	23. Being able to obtain credit for out- of-college experiences	2	4,7
Instructional Patterns	4. Instructors who are personally interested in my progress	7	1-7
	28. Instructors who use many examples in their teaching	5	1,2,4,6
	36. Instructors who are relaxed and informal in the classroom	5	1-4,7
	13. Instructors who have a realistic view of my responsibilities outside class	4	1-3,7
	49. Encouragement from my instructors	3	1,4,5

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

These choices reflected the prevailing condition of the NTAS students. For example, the majority of the subjects were single, lived off-campus, and were accustomed to attending campus for coursework. Hence, they had no need for child care facilities. Lance, Lourie, and Mayo (1979) reported similar findings with respect to child-care facilities.

According to Lance et al.:

. . . the day care center question received the only negative majority response. A total of 369 or 63.3 percent of the students indicated they would not use this service. This result may be explained by the fact that 40 percent of the reentered students were childless. Also 54.5 percent of the reentered students took only night classes (Lance et al., 1979:481).

Since 82 percent of the NTAS respondents had attended the university at least two terms, they were familiar with the university setting and would most likely choose to attend courses on-campus as opposed to off-campus locations. This preference for the on-campus location was supported by the Cross study (Cross & Zussman, 1977:57).

According to Cross:

Traditional educational institutions--high schools, college campuses, adult learning centers--are the preferred learning sites of half to two-thirds of all potential learners in the state surveys. . . . As the Central New York study noted (1975) "adults still strongly associate education with the traditional and familiar school and college sites. . . . [In addition], people [may] feel more comfortable with the idea of studying in their local public school building (Cross & Zussman, 1977:48).

The lowest ranked item for each of the seven ALSTC is listed in Table 73. The items with lowest rankings, "of no importance,"

TABLE 73

LAST CHOICE ITEMS, RANK "OF NO IMPORTANCE" FOR NONTRADITIONAL
AGED STUDENTS (NTAS, 23+) FOR NTAS CLASSIFIED BY ADULT LIFE
STAGE TASK CATEGORIES (ALSTC)* FROM
TAXONOMY OF STUDENT NEEDS

ALSTC	Last Choice Item	No. of Respondents	Percent of Respondents
1	Child care facilities on campus	22	11.5
2	Weekend classes	24	21.2
3	Child care facilities on campus	27	23.9
4	Weekend classes	12	10.6
5	Weekend classes	12	10.6
6	Off-campus courses	3	2.7
7	Child care facilities on campus	8	7.1

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

appear in Table 74. Institutional Curricular Services had the most items ranked "of no importance." There was a great deal of disinterest expressed in evening classes, off-campus courses, and weekend classes. There were no items listed in the facet areas of Academic Survival Skills, and no consistent selection of items across the ALSTC groups for the Instructional Patterns facet. The items subsumed under these facet areas, Academic Survival Skills and Instructional Patterns, were adjudged to be fairly important to the NTAS respondents and therefore not represented in this "Third Order."

A Summary of Third Order Needs (Bottom 25 Percent for the Total Sample)

The lowest items ranked "of no importance," were:

1. Child care facilities on campus (seven of the ALSTC had this item rated as one of the lowest five items).
2. Weekend classes (six of the ALSTC chose this item as one of the five least preferred items).
3. Off-campus courses (selected by three ALSTC groups).
4. Evening classes (selected by three ALSTC groups).
5. Bus service to the campus (choice of three ALSTC groups as one of the least preferred items).

The majority of the subjects were single and probably did not need child care facilities on campus. The item-facet with the most items ranked "of no importance" was Psychological Impediments. Since most of the respondents were experienced students, having attended the university over two terms, they probably experienced few of the negative, anti-adjustment characteristics ascribed to the Psychological

TABLE 74

LEAST PREFERRED ITEMS (BOTTOM 25 PERCENT) SELECTED BY TWO OR MORE
NONTRADITIONAL AGED STUDENT (NTAS, 23+) GROUPS OF ADULT LIFE
STAGE TASK CATEGORIES (ALSTC)* (REPORTED BY ITEM FACETS FOR
NTAS N=113)

Facet	Frequently Selected Last Choice Item	ALSTC No.
Academic Survival Skills		0
Personal Development	54. Students my own age in my classes	5
	53. Reducing my uneasiness about going to college	3
Psychological Impediments	58. Family feeling neglected	6
	59. Fear of appearing unintelligent	4
	57. Fear of appearing awkward	4
	62. Lack of time for home responsibilities	3
Institutional Support Services	47. Child care facilities on campus	6
	37. Evening and weekend registration	6
	15. A campus tour during my first semester	5
	2. Bus service to the campus	5
Institutional Curricular Services	9. Evening classes	6
	43. Off-campus courses	6
	40. Weekend classes	4
	12. Being able to take a course with "pass-fail" grading instead of "A-F" grading	4
	30. Summer classes	3
	3. Being able to take a course as an independent study	3
Instructional Patterns	No consistent trends	

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

Impediments facet. Table 75 presents a facet-by-facet summary of the lowest ranked items.

3. SUMMARY AND DISCUSSION OF SECTION 2: DISCUSSION OF THE TAXONOMIES OF STUDENT NEEDS

Students, whether NTAS or TAS, stressed a high interest in speedy registration procedures, preregistration, getting "A's" and "B's," encouragement from family, and a place to study on campus. The emphasis on matters pertaining to registration parallels suggestions made by White (1978) who stressed the importance of streamlining registration procedures as a means of attracting and retaining adult students. White suggested that colleges implement continuous registration procedures "totally dependent on a sophisticated on-line, computer-assisted registration and records-keeping system" (White, 1978:13). White suggested continuous registration that registers a student at any time "from mid-quarter to mid-quarter directly into the computer via terminal, registers by mail, and registers continuing students by telephone" (White, 1978:14). Given the student emphasis on registration and preregistration such an on-line system might help attract and retain adult students.

Student emphasis on marketable skills was manifest in the selection of item 20, "courses proving specific skills that will be useful on a job," as a top priority item by all seven ALSTC groups for both taxonomies. According to Cross (1977):

TABLE 75
 LOWEST RANKED ITEMS ("OF NO IMPORTANCE") SELECTED BY TWO OR MORE
 GROUPS OF ADULT LIFE STAGE TASK CATEGORIES (ALSTC)* (REPORTED BY
 ITEM FACETS FOR THE TOTAL SAMPLE: N=287) FROM THE
 "SURVEY OF STUDENT NEEDS"

Facet	Frequently Selected Last Choice Item	ALSTC No.
Academic Survival Skills		0
Personal Development	54. Students my own age in my classes	7
	53. Reducing my uneasiness about going to college	4
Psychological Impediments	58. Family feeling neglected	7
	57. Fear of appearing awkward	5
	59. Fear of appearing unintelligent	5
	60. Disapproval by significant others	4
	62. Lack of time for home responsibilities	4
Institutional Support Services	37. Evening and weekend registration	7
	47. Child care facilities on campus	7
	2. Bus service to campus	6
	15. A campus tour during my first semester	5
Institutional Curricular Services	9. Evening classes	7
	43. Off-campus courses	7
	40. Weekend classes	6
	12. Being able to take a course with "pass-fail" grading instead of "A to F" grading	6
Instructional Patterns		0

*A task category is a set of tasks which are associated with a particular life stage. The tasks are those defined by McCoy in Vivian Rogers McCoy, Colleen Ryan, & James W. Lichtenberg, The Adult Life Cycle Training Manual and Reader (Lawrence, Kansas: Adult Life Resource Center, Division of Continuing Education, University of Kansas, 1978), pp. 229-230.

Note: Data for this study were collected at The University of Tennessee, Knoxville in 1981 and 1982, for "Needs of Adult University Students as Related to Adult Life Stages."

When potential learners are asked to name their first-choice subject, however, they become highly pragmatic, serious, and occupationally oriented. About half of all potential learners name, as their first choice, subjects that are vocational or professional. . . . There is not a heavy demand among potential learners for general education and traditional college academic subjects. The CNS study (1974) remarks, "Academic professionals will find it somewhat disheartening that adult Americans are so little interested in traditional liberal arts subjects or, for that matter, in such public affairs topics as community and environmental problems" (p. 20). Generally, no more than one-fourth or one fifth of potential learners name general education fields as first-choice subject preferences (Cross & Zussman, 1977:63-65).

Norris (1977) supported the Cross study, reporting the most frequent reason for return to school was to meet career or vocational goals. Likewise Demos (1979) suggested that emphasis should be placed on provision of "relevant career and job market information" (Demos, 1979:1). Holt (1979) described the trends for community colleges stating that the "students of tomorrow will probably be older, more task-and-job-training oriented" (Holt, 1979:23). Acquisition of marketable skills was discussed by Mitchell (1979) in her report of the recommendations made at hearings conducted by the Commission on Women of the California Community and Junior College Association (March, 1979). Mitchell stated that numerous students expressed a need for training which would result in the acquisition of "marketable skills as quickly as possible in programs which reflect the real needs of the community" (Mitchell, 1979:11). Results from this study attest that needs for marketable skills are not limited to the community or junior college level; they are likewise of primary concern for students at the university level.

The item-facet with the largest number of high priority items for both NTAS and total sample was Instructional Patterns. Mangano described Instructional Patterns as those "instructional policies, practices, and attitudes that affect a student's academic performance" (Mangano & Corrado, 1978:13). Items stipulated as high priority were instructor related and indicated a preference for instructors who expressed personal interest in the students, were relaxed and informal, and encouraged the students. Mangano's study (1978) displayed similar results, both adult and younger students expressed a preference for competent yet informal and relaxed instructors. One major factor in attracting and retaining students is student-faculty rapport.

4. ADULT LIFE STAGES: AGE GRADIENT MEASURES VS. ALSTC

Objective 4: Categorization of adult learners (NTAS and TAS) into developmental stages.

Objective 4 involves categorization of adults into developmental life stages using frequency analysis as well as Kruskal-Wallis test results. Two factors contribute to human development, biological and social/psychological factors (biological defined in this study by age categories, and social/psychological factors defined by ALSTC).

According to McCoy (1978) each life stage comes replete with specific tasks that tend to characterize the stage.

As an individual moves through the stages of adulthood, each stage confronts the person with central developmental tasks. Mastery of the tasks means progress for the individual; denial spells regression and difficulty with later tasks which build on previous mastery (McCoy, 1978:226).

One ancillary problem in this study is to test the relationship between McCoy's proposed task groups (ALSTC) and age groupings. Are the proposed task groups (ALSTC) age-relevant? What percentage of subjects within a stated age group identified themselves with the associated tasks (ALSTC) as defined by McCoy's model? Subjects were asked to choose an ALSTC that most closely described their present life activities. The purpose was to determine the relationship of age and ALSTC. The data were surveyed to ascertain what percentage of students within a specific age group selected the concomitant ALSTC, that is, the ALSTC associated with their specific age group. Table 64, page 187, in Chapter IV presented a summary of the response rates to ALSTC as they related to age categories. This study sought to corroborate McCoy's categorization of task/age groupings; however, such relationships between ALSTC and age categories were not necessarily asserted. The first evidence to the contrary appeared in the frequency distributions. The number of responses for the age and ALSTC did not coincide. Histograms representing age and ALSTC were presented in Figures 3 and 4, pages 184 and 185 in Chapter IV. These histograms displayed the divergence that existed between the age and ALSTC coordinates.

The age and ALSTC correlates should vary at the same rate and in the same direction; however, they do not. The largest number of

respondents are in the first age group. According to the McCoy model a commensurate number of respondents should have selected ALSTC-1. The tasks described in ALSTC-1 describe the supposed activities of age category 1. In this sample, however, such a coincidental relationship between age and ALSTC was not evident. The largest number of responses were to ALSTC-2, as opposed to ALSTC-1. Fourteen respondents chose ALSTC-7, retirement, as being most characteristic of their present life activities; however, no subjects selected age category 7 which, according to the McCoy model, corresponds to ALSTC-7. Table 64, page 187, Chapter IV presented a comparison of age and ALSTC categories, listing the number and percent of respondents per category. In summary, the frequency distributions for this sample do not support the relationships between ALSTC and age categories as they were postulated by McCoy.

Table 65, page 189, in Chapter IV presented a summary of test results for the nine relevant hypotheses and sub-hypotheses. Items marked with an X were significant at $\alpha \leq 0.10$. The items with significant between-group H scores differed from one null hypothesis to another, especially when comparing the null hypotheses pertaining to ALSTC issues to those concerned with the comparable age category issue. These variations in test results from age categories to commensurate ALSTC are supportive of the findings present in the frequency distributions and represented by the histograms. Hence, neither the frequency distribution nor the results of the Kruskal-Wallis tests supported the relationships posited under the McCoy model. There

could be several reasons for the lack of coordination between the ALSTC and age categories. Neugarten points out that age norms (such as the tasks described in the McCoy model) "operate like other types of norms insofar as there is some lack of congruence between that which is acknowledged to be operating in the society and that which is personally accepted as valid" (Neugarten, 1973:27). Neugarten continues to explain the phenomenon by stating that:

These partial misconceptions have at least two implications: first, when a person's own opinions differ from the norms he encounters, he may exaggerate the differences and place the norms even further away from his own opinions than is warranted (Neugarten, 1973:27).

Therefore, the lack of congruence between ALSTC (a norm-related measure) and the age categories (the biological measure of life-stages) may be due to this tendency on the part of individuals to misjudge where they are in the life cycle and to inflate their choices. Kimmel suggested a similar pattern, stating that individuals tend to inflate their choices and choose categories other than those to which they actually belong (Kimmel, 1980).

Another reason for the variance between age and ALSTC could be attributed to what Neugarten describes as "occupational differences." According to Neugarten, sociological, historical, and biological events determine stages in the life line which she described as "significant punctuation marks in the life line," signifying "transition points from one age status to the next" (Neugarten, 1973: 5). Neugarten emphasized external social norms in defining life-

stages, hence, stages were defined by a "timetable of normative transitions defined by social norms" (in Kimmel, 1980:82). Life-stages are ostensibly defined by social norms, and a prevailing schedule of life events becomes established for the population as a whole. However, such demarcations do not always or incontrovertably apply to all persons in the population. For example, Neugarten explained:

The rhythms of the life line that we have been describing hold true for the population as a whole, but there is great variability at different occupational levels. Many social as well as economic and technological factors are at work in creating differences from one occupation to another in the timing of career stages, in the rewards that may be expected at each stage, and in the relationships between age groups (Neugarten, 1973:13).

It may be that the social norms affecting respondents tested in this study were significantly different from those characterized in the McCoy model.

5. SUMMARY AND DISCUSSION

The central concern of this study was to determine whether significant differences existed between the expressed needs of students according to life-stages. The major null hypothesis postulated no significant differences between the needs of students over the life line, hence student needs do not change from one adult life stage to another. The major research hypothesis was:

1. There is no difference among the average H scores of the seven adult life stage categories (ALSTC); therefore,

the needs of students do not differ according to adult life stages.

Results from the various Kruskal-Wallis tests tended to reject ✓ the major research hypothesis. Significant differences were noted especially (1) between male and female respondents, (2) among the male NTAS respondents, and (3) with respect to the various age categories. The data supported the supposition that needs do change over adult life-stages.

The research posed some question as to what constitutes the ✓ most accurate means for assessment of life stages. There was not a high degree of concurrence in the response rates of respondents with regard to ALSTC as opposed to age categories. The results, both in terms of frequency distributions and Kruskal-Wallis tests, did not support the relationship posited by the McCoy model. Neugarten's research suggested several reasons for this observed divergence between age and task (ALSTC) variables. The reasons are:

1. The individual tendency to misjudge one's place in the "timetable of normative transitions" (Kimmel, 1980:82).
2. The inapplicability of general age norms to specialized, idiosyncratic sub-groups of the population, hence requiring re-defining of age norms for that particular sub-group.

Taxonomies of expressed needs indicated that the top priority needs of the NTAS and the total sample were similar. Students expressed great interest in issues regarding registration procedures as well

as instructional patterns. The area of least concern was that of Psychological Impediments.

6. CONCLUSIONS

Several conclusions emerge from this study. These are:

1. The expressed needs of students do change over the life line according to adult developmental stages (in relation to both ALSTC and age categories).
2. The needs of TAS do not vary appreciably, hence reflecting the existence of a "de-facto youth culture" and supporting the Kimmel thesis (1980).
3. The needs of NTAS students do vary appreciably (over 15 percent) according to adult life stages (defined both by ALSTC and age categories) with males reflecting the greatest degree of change.
4. The needs of students become increasingly different from each other as people grow older, hence supporting Knox's thesis (1977:11).
5. The needs of men and women differ, but more so for NTAS than TAS.
6. Women, both TAS and NTAS, exhibit a high degree of unanimity and concurrence with respect to student needs, hence supporting the findings of Malin et al. (1980:126-127).

7. The needs of male NTAS are considerably disparate, displaying a high degree of between-group differences over the life line.
8. The needs of NTAS males are more disparate, displaying greater within group variance than female NTAS, hence supporting the findings of Malin et al. (1980:126-127), who stated that NTAS females exhibited greater stability as a group than did the NTAS males.
9. Students, both TAS and NTAS, are pragmatic and request courses that are occupationally oriented, hence supporting findings reported by Cross and Zussman (1977).
10. Students, both TAS and NTAS, prefer competent yet informal and relaxed instructors, hence supporting findings reported by Mangano and Corrado (1978).
11. Adult students associate education with the traditional campus site and express little interest in off-campus sites, hence supporting work by Cross (1977) and a Central New York State Study (1975).
12. Students are interested in speedy registration procedures, hence supporting White's (1978) thesis that recruiting could be enhanced and rates of attrition stemmed if continuous, on-line computer registration were available.

13. The tasks described in the McCoy model are not apt descriptors of the life activities of the students surveyed at The University of Tennessee, Knoxville, and they do not parallel the age categories in terms of response rates.
14. Due to the variability of the university population, in terms of social norms and age span, ALSTC as described by the McCoy model may not be a dependable measurement for delineation of life-stages. Age-gradient measures (e.g. age categories) would probably be more reliable.

7. RECOMMENDATIONS .

Research for this study indicated the following areas for additional research:

1. To define and measure life-stages determining which variables would be the best predictors for life-stages. The McCoy variables, ALSTC, did not appear to be as reliable predictors of life-stages as were the age-gradients measures (age categories). Study should be conducted to determine which variables best describe life-stages of the university clientele (both present and future clientele). Professor John Peters, The University of Tennessee, Knoxville has suggested identification of life transitions and change rather than emphasis upon concrete, normative stages, hence,

viewing life-stages as "a series of transitions and adaptations, a hierarchical sequence of developments describing successive transformations in adults' more inward ways of constructing experience" (Weathersby & Tarule, 1980:22).

2. To study the needs of NTAS males to determine why there is such variance in their needs over the life line.
3. To incorporate continuous registration and other procedures that would meet the immediate needs of adult students, as well as traditional aged students.
4. To study the needs of potential adult students determining needs and interests.
5. To continue to bridge the gap between the theoretical study of human developmental needs across the life-span and practical application by academicians.
6. Need for longitudinal studies, such as the Valient study, where there is continuous monitoring to ascertain trends over the life line and to provide more continuous information on the developmental needs of adults as they relate to educational needs; hence determining how adults use education, how their educational needs change over the life line, why they return to school at various times in their lives, and how the university could best meet these changing needs.

7. To further study theoretical issues relating to life-span development, such as:
 - (a) The phenomenon of the "de-facto youth culture."
Does such a culture indeed exist and how are needs governed by this peer-group orientation? What effect do professors have on the orientation of young adults in this period?
 - (b) The growing divergence of needs that occur with the aging process, hence studying the ramifications to education of Knox's thesis that "as people grow older they become increasingly different from each other" (Knox, 1977:11).
8. To study the differences between male and female educational needs, determining exactly how they differ (perhaps doing a correlation).
9. To further study the needs of female students, determining if they have special problems in coping with the college experience or if they display the secure, stable, goal-directed behavior of the female students described by this study and by Malin et al. (1980).

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APPENDICES

APPENDIX A

MEMO

TO: Instructors of Non-Credit Courses

FROM: Linda L. Marek

APPROVED BY: Dr. D.J. Kuchta, Dr. Joseph P. Goddard

RE: Administration of Student Needs Survey

DATE: July/Sept. 1981

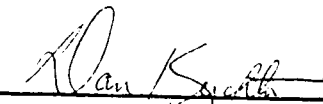
Please administer the enclosed student needs questionnaire to pupils in your classes. The questionnaire will be used to collect data for a doctoral dissertation as well as supply information to the department of Non-Credit Programs. Participation is encouraged by Dr. Kuchta, director of Non-Credit Programs. Data collected will be used to improve programming in the department and will be of benefit to you.

Prior to administering the questionnaire please read the enclosed instructions, out loud, to your class. The students MUST be willing participants, and, be aware of the nature and purposes of the questionnaire. The questionnaire takes approximately fifteen (15) minutes to complete.

This survey of student needs will be administered to students in both non-credit and credit courses. Students are to be encouraged to answer all questions regardless of their immediate applicability. Some questions therefore, may not seem to apply to a student's present circumstances, however, students should attempt to answer the questions regardless of their immediate relevance. Questions that don't seem to apply to a student should be considered as hypothetical and should be answered by the student. STUDENTS MUST ANSWER EVERY QUESTION.

Thank you.

APPROVED BY



Dr. D.J. Kuchta
Director, Non-Credit Programs
University of Tennessee, Knoxville

INSTRUCTIONS FOR SURVEY OF STUDENT NEEDS

(Please, read this out loud to students in your classes.)

The following questionnaire is designed to measure student needs and wants. The purpose is to ascertain the general needs of students enrolled in credit and non-credit courses at the University of Tennessee, Knoxville. The data collected will be used to improve programming as well as supply information for a doctoral dissertation pertaining to university student needs and wants.

Group data are being sought. Your anonymity is guaranteed. Absolutely no attempt will be made to identify individuals. Students taking the questionnaire may have free access to any and all project (group data) results.

Students are encouraged to participate , as, data collected will contribute to program improvements. However, participation is NOT MANDATORY.

Students taking the survey are requested to answer all questions. PLEASE DO NOT SKIP ANY QUESTIONS. Answer all questions to the best of your ability. The items included in the questionnaire represent needs for some students. Please indicate HOW IMPORTANT EACH ITEM IS FOR YOU as a student attending the University of Tennessee, Knoxville. Respond to each item by circling ONE choice according to the ratings indicated on the questionnaire. The ratings are:

- 1 = Of NO Importance
- 2 = Of Low Importance
- 3 = Of Medium Importance
- 4 = Of High Importance
- 5 = Of VERY High Importance

Please DO NOT mark your answers on the questionnaire. RECORD ALL ANSWERS ON THE ENCLOSED SCAN FORM. BE SURE TO USE A PENCIL TO RECORD ANSWERS ON THE SCAN FORM. Remember, ANSWER ALL QUESTIONS.

Thank you for your cooperation.

SURVEY OF STUDENT NEEDS

Directions: The following items represent needs for some students. Please indicate HOW IMPORTANT EACH ITEM IS FOR YOU as a student attending the University of Tennessee, Knoxville. Respond to each item ONLY AS IT APPLIES TO YOU by circling ONE choice according to these rating categories:

- 1 = Of No Importance
 2 = Of Low Importance
 3 = Of Medium Importance
 4 = Of High Importance
 5 = Of Very High Importance

Example:

Being alive.....1 2 3 4 ⑤

Item:

- | | | | | | |
|--|---|---|---|---|---|
| 1. A place to study on campus..... | 1 | 2 | 3 | 4 | 5 |
| 2. Bus service to the campus..... | 1 | 2 | 3 | 4 | 5 |
| 3. Being able to take a course as an independent study..... | 1 | 2 | 3 | 4 | 5 |
| 4. Instructors who are personally interested in my progress..... | 1 | 2 | 3 | 4 | 5 |
| 5. The use of films, tapes, and other audio-visual materials in a course. | 1 | 2 | 3 | 4 | 5 |
| 6. Preregistration..... | 1 | 2 | 3 | 4 | 5 |
| 7. Learning to organize my time better..... | 1 | 2 | 3 | 4 | 5 |
| 8. Improving my study skills..... | 1 | 2 | 3 | 4 | 5 |
| 9. Evening classes..... | 1 | 2 | 3 | 4 | 5 |
| 10. Being able to drop a course at any time without receiving a penalty grade..... | 1 | 2 | 3 | 4 | 5 |
| 11. Studying with other students..... | 1 | 2 | 3 | 4 | 5 |
| 12. Being able to take a course with "pass-fail" grading instead of "A to F" grading..... | 1 | 2 | 3 | 4 | 5 |
| 13. Instructors who have a realistic view of my responsibilities outside class..... | 1 | 2 | 3 | 4 | 5 |
| 14. Being able to take a variety of courses before deciding on a major field of study..... | 1 | 2 | 3 | 4 | 5 |
| 15. A campus tour during my first semester..... | 1 | 2 | 3 | 4 | 5 |
| 16. Learning to prepare better term papers..... | 1 | 2 | 3 | 4 | 5 |
| 17. Tutoring services..... | 1 | 2 | 3 | 4 | 5 |
| 18. Being able to get occupational counseling..... | 1 | 2 | 3 | 4 | 5 |
| 19. Encouragement from my family..... | 1 | 2 | 3 | 4 | 5 |
| 20. Courses providing specific skills that will be useful on a job..... | 1 | 2 | 3 | 4 | 5 |
| 21. Working with other students on class projects..... | 1 | 2 | 3 | 4 | 5 |
| 22. Speedy registration procedures..... | 1 | 2 | 3 | 4 | 5 |

1 = Of No Importance
 2 = Of Low Importance
 3 = Of Medium Importance
 4 = Of High Importance
 5 = Of Very High Importance

23.	Being able to obtain credit for out-of-college experiences.....	1	2	3	4	5
24.	Improving my concentration.....	1	2	3	4	5
25.	Financial aid.....	1	2	3	4	5
26.	"Fitting in" with other students.....	1	2	3	4	5
27.	Improving my note-taking skills.....	1	2	3	4	5
28.	Instructors who use many examples in their teaching.....	1	2	3	4	5
29.	Learning to cope with failure.....	1	2	3	4	5
30.	Instructors who provide more than one way to meet course requirements.....	1	2	3	4	5
31.	Extracurricular activities.....	1	2	3	4	5
32.	Being able to take "re-tests" to improve my grade.....	1	2	3	4	5
33.	Instructors who modify the course outline to satisfy student interests.....	1	2	3	4	5
34.	Improving my social interactions with other students.....	1	2	3	4	5
35.	A place to study at home.....	1	2	3	4	5
36.	Instructors who are relaxed and informal in the classroom.....	1	2	3	4	5
37.	Evening and weekend registration.....	1	2	3	4	5
38.	Improving my writing skills.....	1	2	3	4	5
39.	Learning to give better oral reports.....	1	2	3	4	5
40.	Weekend classes.....	1	2	3	4	5
41.	Improving my writing skills.....	1	2	3	4	5
42.	"Keeping up" with other students in class.....	1	2	3	4	5
43.	Off-campus courses.....	1	2	3	4	5
44.	Getting "A"s and "B"s in my courses.....	1	2	3	4	5
45.	Instructors who let students decide what should be covered in a course.....	1	2	3	4	5
46.	Courses with many class discussions.....	1	2	3	4	5
47.	Child care facilities on campus.....	1	2	3	4	5
48.	Improving my vocabulary skills.....	1	2	3	4	5
49.	Encouragement from my instructors.....	1	2	3	4	5
50.	Summer classes.....	1	2	3	4	5
51.	Learning to set better goals for myself.....	1	2	3	4	5
52.	Improving my motivation for college work.....	1	2	3	4	5
53.	Reducing my uneasiness about going to college.....	1	2	3	4	5
54.	Students my own age in my classes.....	1	2	3	4	5
55.	Instructors who follow the course outline very closely.....	1	2	3	4	5
56.	Improving my reading skills.....	1	2	3	4	5

- 1 = Of No Importance
 2 = Of Low Importance
 3 = Of Medium Importance
 4 = Of High Importance
 5 = Of Very High Importance

57. Fear of appearing awkward.....1 2 3 4 5
 58. Family feeling neglected.....1 2 3 4 5
 59. Fear of appearing unintelligent.....1 2 3 4 5
 60. Disapproval by significant others.....1 2 3 4 5
 61. Lack of acceptance by students or co-workers.....1 2 3 4 5
 62. Lack of time for home responsibilities.....1 2 3 4 5
 63. Loss of contact with old friends.....1 2 3 4 5

Part II- Current Status

Directions: Please check (✓) the information requested.

1. Sex: (1) ☐ Male (2) ☐ Female
2. Age: (1) ☐ 18 - 22 (4) ☐ 35 - 43 (7) ☐ 65 +
 (2) ☐ 23 - 28 (5) ☐ 44 - 55
 (3) ☐ 29 - 34 (6) ☐ 56 - 64
3. Marital Status:
 (1) ☐ Single
 (2) ☐ Married
 (3) ☐ Widowed, divorced, or separated
4. Employment:
 (1) ☐ Not employed, retired
 (2) ☐ Employed part-time
 (3) ☐ Employed full-time
5. Before attending this University, when did you last take a course (credit or noncredit) in either high school or college?
 (1) ☐ 1 year ago or less
 (2) ☐ 2 - 4 years ago
 (3) ☐ 5 years ago or more
6. Are you currently enrolled in a noncredit course at the University?
 (1) ☐ Yes (2) ☐ No
7. Are you enrolled in credit courses, as a nondegree student?
 (1) ☐ Yes (2) ☐ No
8. Are you currently enrolled in a degree program (matriculated) ?
 (1) ☐ Yes (2) ☐ No

9. Are you an undergraduate student?
 (1) ☐ Yes (2) ☐ No
10. Are you a graduate student?
 (1) ☐ Yes (2) ☐ No
11. How many credits are you taking this term?
 (1) ☐ 6 or fewer
 (2) ☐ 7 - 12
 (3) ☐ 13 or more
12. How many terms have you attended this University?
 (1) ☐ This is my first term.
 (2) ☐ 2 - 4 terms
 (3) ☐ 5 or more terms
13. When do you attend classes?
 (1) ☐ Day
 (2) ☐ Evening
 (3) ☐ Both day and evening
14. What is your major field of study?
 (1) ☐ Business (4) ☐ Fine Arts
 (2) ☐ Education (5) ☐ Trade/Technology
 (3) ☐ Liberal Arts (6) ☐ Other (Specify) _____
15. What is your highest level of formal education?
 (1) ☐ Below High School (5) ☐ Bachelor's plus some additional hours
 (2) ☐ High School (6) ☐ Master's Degree
 (3) ☐ Some College but no earned degree (7) ☐ Master's Degree plus some additional hours
 (4) ☐ Bachelor's Degree (8) ☐ Doctor's/Ph.D.
 (9) ☐ Post Doctoral studies
16. Select a category of skills that MOST CLOSELY describes you. You must select only one category. Please do not select individual tasks. If some of the tasks in the category which you selected are not applicable to you don't worry about it. Your job is to indicate which large category of tasks most closely describes your present life activities. The task-categories are listed on the next page (page 5). Study them carefully and select that category which best describes you. Indicate your selection below.

The task-category that best describes my present state is:

- | | |
|---|---|
| (1) ☐ Category # 1 | (5) ☐ Category # 5 |
| (2) ☐ Category # 2 | (6) ☐ Category # 6 |
| (3) ☐ Category # 3 | (7) ☐ Category # 7 |
| (4) ☐ Category # 4 | |

TASK-CATEGORIES

CATEGORY # 1 1. Break psychological ties. 2. Choose careers. 3. Enter work. 4. Handle peer relationships. 5. Manage home. 6. Manage time. 7. Adjust to life on own. 8. Problem solve. 9. Manage stress accompanying change	CATEGORY # 2 1. Select mate. 2. Settle in work, begin career ladder. 3. Parent. 4. Become involved in community. 5. Consume wisely. 6. Homeown. 7. Socially interact. 8. Achieve autonomy. 9. Problem solve. 10. Manage stress accompanying change.		
CATEGORY # 3 1. Search for personal values. 2. Reappraise relationships. 3. Progress in career. 4. Accept growing children. 5. Put down roots, achieve "permanent" home. 6. Problem solve. 7. Manage stress accompanying change.	CATEGORY # 4 1. Search for meaning. 2. Reassess marriage. 3. Reexamine work. 4. Relate to teenage children. 5. Relate to aging parents. 6. Reassess personal priorities and values. 7. Adjust to single life. 8. Problem solve. 9. Manage stress accompanying change.		
CATEGORY # 5 1. Adjust to realities of work. 2. Launch children. 3. Adjust to empty nest. 4. Become more deeply involved in social life. 5. Participate actively in community concerns. 6. Handle increased demands of older parents. 7. Manage leisure time. 8. Manage budget to support college-age children and ailing parents. 9. Adjust to single state. 10. Problem solve. 11. Manage stress accompanying change.	CATEGORY # 6 1. Adjust to health problems. 2. Deepen personal relations. 3. Prepare for retirement. 4. Expand avocational interests. 5. Finance new leisure. 6. Adjust to loss of mate. 7. Problem solving. 8. Manage stress accompanying change.		
CATEGORY # 7 <table border="0"> <tr> <td> 1. Disengage from paid work. 2. Reassess finances. 3. Be concerned with personal health care. 4. Search for new achievement outlets. 5. Manage leisure time. 6. Adjust to more constant marriage companion. </td> <td> 7. Search for meaning. 8. Adjust to single state. 9. Be reconciled to death. 10. Problem solve. 11. Manage stress accompanying change. </td> </tr> </table>		1. Disengage from paid work. 2. Reassess finances. 3. Be concerned with personal health care. 4. Search for new achievement outlets. 5. Manage leisure time. 6. Adjust to more constant marriage companion.	7. Search for meaning. 8. Adjust to single state. 9. Be reconciled to death. 10. Problem solve. 11. Manage stress accompanying change.
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**THE UNIVERSITY OF KANSAS**

Division of Continuing Education

Continuing Education Building

Lawrence, Kansas 66045

913 864-4790

July 15, 1981

Linda L. Marek
5812 Rockwood Lane
Knoxville, Tennessee 37921

Dear Linda:

You have my permission to use the Adult Life Cycle Stages and Tasks Chart.

Good luck on your work which is most needed.

Sincerely,

Vivian R. McCoy
Assistant to the Dean

VRM: cfm

Incidentally, the Task identification
is derived from Lewinson, Jones,
and Thorpe.

APPENDIX B

TABLE 76

ITEMS THAT ACHIEVE SIGNIFICANCE (0.10) ON KRUSKAL-WALLIS ANALYSIS OF STUDENT NEEDS (N=287)

Hypothesis	Facet	Item	Brief Item Descriptor	Prob.
H ₀ 1	Personal development	11	Studying with other students	0.08
		21	Working with other students in class	0.09
		26	"Fitting in" with other students	0.03
		34	Improving my social interactions with other students	<0.01
		42	"Keeping up" with other students in class	0.03
		44	Getting "A's" and "B's" in my courses	<0.01
	Psychological impediments	57	Fear of appearing awkward	0.05
		63	Loss of contact with old friends	0.01
	Institutional support services	1	A place to study on campus	<0.01
		6	Preregistration	0.07
		31	Extracurricular activities	<0.01
	Institutional curricular services	9	Evening classes	<0.01
		10	Being able to drop a course at any time without receiving a penalty grade	0.04
		40	Weekend classes	0.03
		43	Off-campus courses	0.07
	Instructional patterns	28	Instructors who use many examples in their teaching	0.08
		30	Instructors who provide more than one way to meet course requirements	0.01
		33	Instructors who modify the course outline to satisfy student interests	<0.01
		36	Instructors who are relaxed and informal in the classroom	0.03
		49	Encouragement from my instructors	0.09
H ₀ 1-A(1)	Personal development	19	Encouragement from my family	0.07
		24	Improving my concentration	0.02
		35	A place to study at home	0.09
	Psychological impediments	62	Lack of time for home responsibilities	0.08
	Institutional support services	1	A place to study on campus	0.03
		17	Tutoring services	0.02
		25	Financial aid	0.09
	Institutional curricular services	1	Being able to take a course as an independent study	<0.01
		12	Being able to take a course with "pass-fail" grading instead of "A" to "F" grading	<0.01

TABLE 76 (continued)

Hypothesis	Facet	Item	Brief Item Descriptor	Prob.
H ₀ 1-A(2)	Academic survival skills	41	Improving my writing skills	0.09
	Personal development	34	Improving my social interactions with other students	0.07
		35	A place to study at home	0.04
		42	Keeping up with other students in class	0.07
		44	Getting "A's" and "B's" in my courses	
	Institutional support services	1	A place to study on campus	<0.01
		6	Preregistration	0.07
		22	Speedy registration procedures	0.03
	Instructional curricular services	23	Being able to obtain credit for out-of-college experience	0.03
		40	Weekend classes	0.02
		50	Summer classes	<0.01
	Instructional patterns	4	Instructors who are personally interested in my progress	0.03
		5	The use of films, tapes, and other audiovisual materials in a course	0.04
		28	Instructors who use many examples in their teaching	0.02
		30	Instructors who provide more than one way to meet course requirements	0.03
		33	Instructors who modify the course outline to satisfy student interests	0.06
		36	Instructors who are relaxed and informal in the classroom	0.05
		49	Encouragement from my instructors	0.04
H ₀ 1-B(1)	Academic survival skills	27	Improving my note-taking skills	0.07
	Personal development	7	Learning to organize my time better	0.04
		19	Encouragement from my family	0.01
		26	"Fitting in" with other students	0.05
		44	Getting "A's" and "B's" in my courses	0.09
	Psychological impediments	62	Lack of time for home responsibilities	0.05
	Institutional support services	15	A campus tour during my first semester	0.07
		22	Speedy registration procedures	<0.01
		31	Extracurricular activities	<0.01
	Institutional curricular services	23	Being able to obtain credit for out-of-college experiences	0.03

TABLE 76 (continued)

Hypothesis	Facet	Item	Brief Item Descriptor	Prob.
H ₀ 2	Academic survival skills	16	Learning to prepare better term papers	0.02
		27	Improving my note-taking skills	0.09
		39	Learning to give better oral reports	0.02
	Personal development	11	Studying with other students	0.06
		19	Encouragement from my family	0.03
		29	Learning to cope with failure	0.01
		44	Getting "A's" and "B's" in my courses	<0.01
		51	Learning to set better goals for myself	<0.01
		53	Reducing my uneasiness about going to college	0.01
	Psychological impediments	57	Fear of appearing awkward	0.04
		58	Family feeling neglected	0.06
		59	Fear of appearing unintelligent	0.03
		60	Disapproval by significant others	0.02
		61	Lack of acceptance by students or co-workers	0.06
		62	Lack of time for home responsibilities	0.07
		63	Loss of contact with old friends	<0.01
	Institutional support services	2	Bus service to the campus	0.02
		15	A campus tour during my first semester	0.01
		18	Being able to get occupational counseling	<0.01
		25	Financial aid	0.04
	Instructional patterns	30	Instructors who use many examples in their teaching	0.07
		32	Being able to take "re-tests" to improve my grade	0.0
		49	Encouragement from my instructors	0.01
H ₀ 3	Academic survival skills	8	Improving my study skills	0.07
		16	Learning to prepare better term papers	0.02
	Personal development	7	Learning to organize my time better	0.03
		11	Studying with other students	0.04
		21	Working with other students on class projects	0.06
		29	Learning to cope with failure	<0.01
		42	"Keeping up" with other students in class	0.09
		44	Getting "A's" and "B's" in my courses	0.01
		53	Reducing my uneasiness about going to college	0.01

TABLE 76 (continued)

Hypothesis	Facet	Item	Brief Item Descriptor	Prob.
H ₀ 3-A	Psychological impediments	57	Fear of appearing awkward	0.06
		59	Fear of appearing unintelligent	<0.01
		60	Disapproval by significant others	0.09
		61	Lack of acceptance by students or co-workers	0.02
		62	Lack of time for home responsibilities	0.08
		63	Lack of contact with old friends	0.09
	Institutional support services	15	A campus tour during my first semester	0.05
		18	Being able to get occupational counseling	<0.01
H ₀ 3-B	Academic survival skills	39	Learning to give better oral reports	0.04
	Personal development	19	Encouragement from my family	0.07
	Psychological impediments	57	Fear of appearing awkward	0.09
		63	Loss of contact with old friends	0.02
	Institutional curricular services	50	Summer classes	0.05
	Instructional patterns	32	Being able to take "re-tests" to improve my grade	<0.01
		45	Instructors who let students decide what should be covered in a course	0.03
		49	Encouragement from my instructors	0.02
H ₀ 4	Academic survival skills	16	Learning to prepare better term papers	<0.01
		21	Working with other students on class projects	<0.01
		48	Improving my vocabulary skills	0.09
	Personal development	7	Learning to organize my time better	0.05
		11	Studying with other students	<0.01
		19	Encouragement from my family	0.06
		21	Working with other students on class projects	<0.01
		24	Improving my concentration	<0.01
		26	"Fitting in" with other students	<0.01
		34	Improving my social interactions with other students	<0.01
		42	"Keeping up" with other students in class	0.08
		44	Getting "A's" and "B's" in my courses	<0.01
		51	Learning to set better goals for myself	0.04
		52	Improving my motivation for college work	<0.01
		53	Reducing my uneasiness about going to college	<0.01
		54	Students my own age in my classes	<0.01

TABLE 76 (continued)

Hypothesis	Facet	Item	Brief Item Descriptor	Prob.
H ₀ 4	Psychological impediments	57	Fear of appearing awkward	0.02
		59	Fear of appearing unintelligent	0.03
		61	Lack of acceptance by students or co-workers	<0.01
		63	Loss of contact with old friends	<0.01
	Institutional support services	1	A place to study on campus	<0.01
		8	Improving my study skills	<0.01
		15	A campus tour during my first semester	<0.01
		17	Tutoring services	<0.01
		18	Being able to get occupational counseling	<0.01
		22	Speedy registration procedures	<0.01
		25	Financial aid	0.09
		31	Extracurricular activities	<0.01
		37	Evening and weekend registration	<0.01
		47	Child care facilities on campus	0.02
	Institutional curricular services	3	Being able to take a course as an independent study	<0.01
		9	Evening classes	<0.01
		10	Being able to drop a course at any time without receiving a penalty grade	0.08
		12	Being able to take a course with "pass-fail" grading instead of "A" to "F" grading	0.04
		23	Being able to obtain credit for out-of-college experiences	0.08
		40	Weekend classes	<0.01
		43	Off-campus courses	<0.01
		50	Summer classes	0.02
	Instructional patterns	5	The use of films, tapes, and other audiovisual materials in a course	0.09
		6	Preregistration	<0.01
		13	Instructors who have a realistic view of my responsibilities outside class	0.08
		28	Instructors who use many examples in their teaching	0.01
		32	Being able to take "re-tests" to improve my grade	<0.01
		33	Instructors who modify the course outline to satisfy student interests	<0.01
		36	Instructors who are relaxed and informal in the classroom	<0.01
		45	Instructors who let students decide what should be covered in a course	<0.01
		55	Instructors who follow the course outline very closely	0.08

TABLE 76 (continued)

Hypothesis	Facet	Item	Brief Item Descriptor	Prob.
H ₀ 5	Academic survival skills	39	Learning to give better oral reports	0.08
	Personal development	11	Studying with other students	0.02
		34	Improving my social interactions with other students	0.01
		44	Getting "A's" and "B's" in my courses	<0.01
		51	Learning to set better goals for myself	0.08
		52	Improving my motivation for college work	0.02
		53	Reducing my uneasiness about going to college	0.02
	Psychological impediments	59	Fear of appearing awkward	0.04
		63	Loss of contact with old friends	0.04
	Institutional support services	1	A place to study on campus	<0.01
		31	Extracurricular activities	<0.01
		37	Evening and weekend registration	<0.01
		47	Child care facilities on campus	0.09
	Institutional curricular services	9	Evening classes	<0.01
		40	Weekend classes	<0.01
		43	Off-campus courses	<0.01
		50	Summer classes	0.02
	Instructional patterns	5	The use of films, tapes, and other audiovisual materials in a course	0.07
H ₀ 6-A	Academic survival skills	27	Improving my note-taking skills	0.08
		39	Learning to give better oral reports	<0.01
		41	Improving my writing skills	<0.01
		48	Improving my vocabulary skills	0.04
	Personal development	11	Studying with other students	0.02
		24	Improving my concentration	0.09
		34	Improving my social interactions with other students	<0.01
		38	Improving my writing skills	0.02
		44	Getting "A's" and "B's" in my courses	0.02
		51	Learning to set better goals for myself	0.06
		52	Improving my motivation for college work	0.03
		53	Reducing my uneasiness about going to college	0.07
	Psychological impediments	57	Fear of appearing awkward	0.07
		59	Fear of appearing unintelligent	0.03

TABLE 76 (continued)

Hypothesis	Facet	Item	Brief Item Descriptor	Prob.
H ₀ 1-B(2)	Psychological impediments	57	Fear of appearing awkward	0.01
		59	Fear of appearing unintelligent	0.06
	Institutional support services	2	Bus service to campus	0.09
		6	Preregistration	0.06
	Institutional curricular services	40	Weekend classes	<0.01
	Instructional patterns	33	Instructors who modify the course outline to satisfy student interests	0.01
H ₀ 1-C	Personal development	34	Improving my social interaction with other students	0.08
		35	A place to study at home	0.05
		42	"Keeping up" with other students in class	0.02
		44	Getting "A's" and "B's" in my courses	<0.01
	Psychological impediments	58	Family feeling neglected	0.09
		62	Lack of time for home responsibilities	<0.01
	Institutional support services	1	A place to study on campus	0.01
		37	Evening and weekend registration	0.05
		47	Child care facilities on campus	0.07
	Institutional curricular services	9	Evening classes	<0.01
		40	Weekend classes	0.08
		43	Off-campus courses	0.08
		50	Summer classes	0.03
	Instructional patterns	30	Instructors who provide more than one way to meet course requirements	0.07
H ₀ 1-D	Personal development	44	Getting "A's" and "B's" in my courses	<0.01
	Psychological impediments	57	Fear of appearing awkward	<0.01
	Institutional support services	6	Preregistration	<0.01
	Institutional curricular services	40	Weekend classes	<0.01
	Instructional patterns	33	Instructors who modify the course outline to satisfy student interests	<0.01

TABLE 76 (continued)

Hypothesis	Facet	Item	Brief Item Descriptor	Prob.
H ₀ 6-A	Institutional support services	1	A place to study on campus	<0.01
		31	Extracurricular activities	<0.01
	Institutional curricular services	9	Evening classes	<0.01
		12	Being able to take a course with "pass-fail" grading instead of "A" to "F" grading	<0.01
		40	Weekend classes	<0.01
		43	Off-campus courses	0.08
	Instructional patterns	45	Instructors who let students decide what should be covered in a course	0.04
		49	Encouragement from my instructors	0.06
		55	Instructors who follow the course outline very closely	0.03
H ₀ 6-B	Personal development	24	Improving my concentration	0.09
		44	Getting "A's" and "B's" in my courses	<0.01
		53	Reducing my uneasiness about going to college	<0.01
		56	Improving my reading skills	0.04
	Psychological impediments	58	Family feeling neglected	0.05
	Institutional support services	25	Financial aid	0.03
		37	Evening and weekend registration	0.02
	Institutional curricular services	9	Evening classes	<0.01
		43	Off-campus courses	<0.01
H ₀ 7	Academic survival skills	39	Learning to give better oral reports	0.09
		48	Improving my vocabulary skills	0.07
	Personal development	26	"Fitting in" with other students	0.08
	Psychological impediments	57	Fear of appearing awkward	0.05
		63	Loss of contact with old friends	0.07
H ₀ 8	Personal development	11	Studying with other students	0.07

VITA

Linda Louise Marek was born in Lafayette, Indiana and attended public schools in West Lafayette, Indiana.

Her Bachelor of Music in Performance as well as a Bachelor of Music Education degrees are from Indiana University, Bloomington, Indiana. The Master of Music in Performance degree was earned at the University of Oklahoma, where she studied with Mildred Andrews. She earned a Doctor of Education degree in Educational Administration and Supervision from The University of Tennessee, Knoxville, in December 1984. The writer also studied at Eastman School of Music, Rochester, New York with Dr. David Craighead; at Syracuse University, Syracuse, New York with Dr. Arthur Poister; at Florida State University, Tallahassee, Florida; Boston University, Boston, Mass.; the Cincinnati Conservatory, Cincinnati, Ohio; and received a certificate from the Haarlem Academy in Haarlem, Netherlands.

The writer has had 13 years of college teaching experience, having taught at Knoxville College, Knoxville, Tennessee and at Maryville College, Maryville, Tennessee. At Knoxville College she served as chairperson of the Art and Music Department. She also served as organist in numerous churches and as flutist with the Knoxville Symphony Orchestra. The writer has performed at colleges, universities, and churches throughout the United States. Performances have included recitals at the Washington National Cathedral, Washington, D.C.; Fifth Avenue Presbyterian Church, New York City,

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