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Competency needs of entry level practitioners
in leisure services

by

Denver Franklin Bennett

A Dissertation Submitted to the
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The Requirements for the Degree of
DOCTOR OF PHILOSOPHY

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CHAPTER I. INTRODUCTION

The provision of recreation and park (leisure) services in America has traditionally been received with mixed reaction. The heavy emphasis of our society toward a work orientation has often been at odds with the development of programs and professions centered upon providing recreative experiences for people. At the same time, it has been recognized by many that leisure (which is in a major sense the by-product of a technological and automated society) can be either a positive or negative force in the social welfare of individuals, communities, and nations. Thus, while the development of professional leadership for recreation and park (leisure) services¹ programs has been regarded highly by some, such expenditure of time and funds by organizations and governmental agencies has met with heavy opposition by others.

The development of recreation and park (leisure) services programs, and the staffing patterns for these programs, have taken place among a mix of social and political pressures having influence upon each individual setting. It has been only in recent years that there have been signs of uniformity emerging in the types of programs offered and the methods of operation employed in the thousands of departments providing leisure services. Meanwhile, a reflection of the divergent orientations of organizations providing these services is the various emphases which have been incorporated into professional preparation curricula in the

¹The terms "recreation and parks" and "leisure" services are used interchangeably in the literature. The term "leisure services" is used to connote the broad discipline in this study.

colleges and universities. Dr. Allen Sabora (5, p. 78) stated in 1967:

The different emphases in curriculums, accreditation, and registration have caused differences in curriculum development, a diffusion of professional affiliation, and a multiplicity of terms. Because of the tremendous demand for professional park and recreation personnel, many resource oriented curricula are devoid of behavioral sciences; and program-oriented curriculums are "loaded" with activity courses with little or no emphasis on physical environment.

Edward Niepoth (4, p. 70) has stated that until agreement can be reached concerning what the end product of college training should be, the confusion in preparation programs will continue. He has suggested that confusion over the nature of the entry level position contributes to a lack of consistency in educational requirements for various positions in the profession.

Addressing the problem of preparation curricula content, Jay Shivers (4, p. 74) asked:

In what direction are we pointed when we talk about professional preparation: Are we trying to produce an individual who has a solid foundation of program skills and little else, or are we going to the other extreme of producing an individual who has little or no program skills and is supposedly prepared for middle management and upper echelon executive duties? Obviously, both of these extremes leave much to be desired.

Shivers (4, p. 75) further stated that the professional preparation program should be concerned with providing the graduating student with program skills including the categories of arts, crafts, drama, dance, education, hobbies, music, motor skills, social activities, service activities and special events. In addition, he suggested that the student should also have an acquaintanceship with management principles and techniques.

Louis Twardzik, however, took a different view on what professional

preparation programs should contain when he said (4, p. 76):

The professional in recreation is being placed in positions of responsibility which call for decisions involving changes in recreation preferences and allocation of resources. The simplistic methods of determining the number of playgrounds, parks, and making things from popsicle sticks hopefully belongs to another age of professional growth and competence. Recreation, as a human experience, can no longer be easily catalogued into neat systems or classifications of areas or programs How do we exhibit imagination and responsible public leadership if our levels of learning in recreation at the university is kept at the fact finding, skill producing level The individual with skill level background cannot possibly compete in the highly sophisticated and competitive business of making decisions on new situations.

Twardzik (4) further suggested that the two-year associate degree was the proper educational setting for instruction relating to needed technical skills of program leadership and that this preparation would serve as the basis for students transferring to more specialized baccalaureate degree programs.

The National Policy and Position Statement of the Society of Park and Recreation Educators (16), titled "Education for Leisure: The Role of Higher Education in Education for Leisure, and in Education for the Leisure Service Professions", took a third stance with regard to the organization and development of professional preparation. It was the position of this report that the baccalaureate degree should be designed to provide a general education in the liberal arts and sciences and the leisure services profession. The master's degree was suggested as the proper level for specialization in the development of emphases in preparation programs.

There has been much disagreement in the leisure services field with regard to what should be taught in professional preparation and how

curricula should be organized. There has been general agreement, however, that steps must be taken to reach consensus on this issue. As stated in the 1968 report of the National Forum; "Educating Tomorrow's Leaders in Parks, Recreation and Conservation" (8, p. 25):

The fact that 183 institutions of higher learning presently offer major curriculum in parks and recreation is no indication of the quality of such programs.

The charge is often raised that the rapid increase in curricula has produced programs with inadequate instruction, course content, and/or faculty qualifications to prepare students for competent leadership in the field. This accusation has made it imperative that overall standards and criteria for recreation and parks curricula be established.

The Federation of Organizations for Recreation was formed in the 1950's for the purpose of establishing basic standards for curricula in leisure services education. Called the "National Recreation Education Accreditation Project" (1), the resulting proposal was submitted to the National Council on Accrediting in April, 1973. The proposal, in addition to specifying suggested basic standards for the accreditation of curricula in leisure services education, requested that the N.C.A. serve as the agency for implementation of accreditation of college and university education programs. N.C.A. refused to accept this responsibility. Efforts are continuing toward obtaining such assistance from an acceptable independent agency of this type (3).

The standards proposed for the accreditation of professional preparation curricula in leisure services included suggested basic standards for curriculum content for undergraduate level (see Appendix F) (1). These content suggestions were written primarily in terms of cognitive competencies required of students.

Background and Setting

In 1970 a follow-up study was conducted by the Society of Park and Recreation Educators (SPRE), a branch of the National Recreation and Park Association (NRPA), in which data were collected concerning curricula in leisure services education in the United States and Canada. These data, reported in 1971, were compared to prior findings regarding numbers of junior and senior level colleges and universities offering degrees in professional recreation and park education. The report stated (7, p. 35):

Prior to 1960, only two 2-year curriculums could be identified. By 1970 this had increased to 70. During the same decade 4-year undergraduate and graduate programs had increased from 64 in 1960 to 144 in 1970. An additional 58 institutions have already indicated initiation of new recreation and/or park curriculums by 1975.

According to the study, two-year programs accounted for 32.7% (N = 70) of all curricula in leisure services education while those institutions with undergraduate degree programs accounted for 29.4% (N = 63) and colleges and universities with both undergraduate and graduate (masters) level programs comprised 22.0% (N = 47). Only 2.8% (N = 6) of the programs offered undergraduate, masters and doctoral level curricula (7).

In the institutions of higher education there were 16,719 students seeking degrees in leisure education. Of this number, 70% (N = 11,677) were enrolled in four-year programs, 19.6% (N = 3,285) were enrolled in two-year programs and 8.9% (N = 1,488) were enrolled in masters level programs. The doctorate was being sought by 1.6% (N = 262) of the total in 1970. Distribution of students by sex indicated that of the 13,434 students enrolled in four-year programs 65.7% (N = 8,829) were male and

34.3% (N = 4,605) female. In the two-year programs 62.6% (N = 2,058) of the total 3,285 students were male and 37.3% (N = 1,227) female.

The rapid expansion in the numbers of institutions offering degrees in leisure services education has produced concern among educators and practitioners as to both the quality and quantity of persons receiving undergraduate degrees. Unlike many professions to this date there have been no certification requirements for the regulation of personnel who are employed in leisure services positions. At the same time, no generally accepted accreditation procedures have been instituted which would establish basic standards for content of such curricula. While there is evidence of increasing support among professionals for both certification and accreditation, there has been no specific agreement on what form these should take, what the standards should be, or how they should be administered.

In April, 1968 the Federation of Organizations for Recreation issued a progress report as a part of the National Recreation Education Accreditation Project (1). That report set forth for consideration curriculum content standards for undergraduate programs in recreation and park education. Those proposed standards were in two parts: 1) General Education and 2) Professional Emphases. It set forth the competencies of knowledge and understanding deemed appropriate for undergraduate professional programs in leisure education. That project, though controversial with respect to some of its recommendations, has had the catalytic effect of focusing attention upon the domain of leisure services curriculum content.

In the 1972 Society of Park and Recreation Educators (SPRE) national policy and position statement, one of the four areas of responsibility of universities, in relation to leisure, was stated (16, p. 1):

It is a clear responsibility to prepare people for leisure service professions through professional orientation in the undergraduate years and professional specialization in the graduate years.

The policy and position statement further declared:

. . . we are inevitably led to decide that there is simply not enough time in the undergraduate years for highly specialized professional preparation, if recruits to this field are to receive, as we claim all students should, a broad general education aimed at preparation for living. Undergraduate education for a professional career, then, should be geared to provide general orientation to the profession, or to a relatively broad area of specialization within it. Professional specialization in the formal education sense then becomes the task of the graduate program.

The SPRE position statement was theoretical in perspective in that it did not provide the specific content domain to be included in the associate degrees it categorized as preprofessional, the baccalaureate degrees it determined to be appropriate as entry level, or the graduate degrees it proposed for professional specializations.

A central factor which has inhibited implementation of specific accreditation content standards was stated by Dr. Edward Niepoth (6, p. 86) as follows:

The question of where, or at what level, professional education should be introduced is closely related to a second question: What kind of education is needed for entry into the fields? At what point do we need professional competency as opposed to technical competency? Is it at the leadership level, the supervisory level, the administrative level, or at all three? Is the level the same for therapeutic services, resource management, general program administration?

It has become evident that research is needed to test the

appropriateness of the various positions which have been suggested regarding professional preparation programs for leisure services jobs. Since a primary concern of professional preparation is the employment of those receiving such preparation, discernment of the nature of the employment in the field is of critical interest to those guiding the development of professional education curricula in colleges and universities. Of greatest importance in decisions regarding such curriculum development is the definition of competencies which should be possessed by persons entering the leisure services field. Competencies needed for successful performance of assigned job functions are a logical standard for determination of curriculum content in such professional preparation programs.

The effect of the SPRE policy and position statement recommendations would be to provide similar undergraduate leisure service education curricula for all persons aspiring to entry level jobs at the end of the baccalaureate degree. This position presupposes that the body of knowledge and abilities needed for success by employees in various agencies is homogeneous at the entry level. Yet, entry into the field is known to occur at different administrative levels. Also, the orientation of agencies tends to affect the job requirements placed on employees. The attitudes of existing agency personnel also may have influence upon the criteria developed for selection and retention of employees. The extent to which competencies judged as needed for successful performance by entry level employees are independent of the agency and practitioner orientations is an important consideration in the development of

undergraduate professional preparation programs. Additionally, it is important for curriculum planners to realize whether there exists a significant difference in the general competencies needed by entry level persons in the four major types of leisure service agencies (therapeutic recreation, resource management, general recreation programming and park and recreation operations).

This study has been designed to determine the competencies judged as needed by entry level practitioners in leisure service jobs. This information is interpreted relative to its meaning for curriculum development decisions in colleges and universities offering programs of study in this field.

Purpose of Study

The purpose of this study was three-fold. The first purpose was to contribute to a better understanding of some of the competencies needed for successful employment of entry level practitioners in leisure service jobs. Because a majority of persons who register in undergraduate programs plan to enter the job market upon completion of a degree, evaluation of the judgments of persons engaged in providing these services should provide insights into ways in which a student's potential for successful entry into the leisure services job market may be enhanced. A second purpose was to contribute to a better understanding regarding competencies which have been suggested as important by various authors in the literature. This information should be valuable to those involved in construction,

development and evaluation of leisure service curricula. A third purpose was to compare the judgments of practitioners in four specific program emphases in order to assess the degree of commonalty or difference in responses toward the competencies needed for success by entry level employees. This type of information should provide insights into the level of specialization appropriate in undergraduate preparation programs in the colleges and universities offering leisure service curricula. Such insights will assist in providing a meaningful solution to the present debate regarding general as opposed to specialized preparation programs on the undergraduate level.

This study was designed to answer these questions: 1) What, in the judgment of those actively engaged in providing leisure services, are the competencies needed by entry level employees, and 2) Are there significant differences in the judgments of practitioners engaged in the different areas (therapeutic recreation, resource management, general recreation programming and recreation and park operations) as to the competencies needed by entry level employees?

Objectives

Entry into leisure service jobs may occur at different administrative levels. Likewise, job responsibilities as well as staffing patterns and procedures tend to vary according to agency orientation. A major objective of this study was to examine how the functional orientation of the agency relates to judgments of those competencies needed for success by entry level employees in leisure service jobs.

The first broad objective was to analyze the judgments of persons engaged in providing recreation and park (leisure) services regarding the competence needed by entry level employees on the instrument composed of four rationally selected subscales of subject and ability items. It was reasoned that if needed entry level competencies were homogeneous over leisure service agencies, there would be no significant difference in the judgments of the groups relative to the total scale and four subscales.

The second broad objective was to compare the judgments of practitioners and board members regarding the competencies needed by entry level employees in agencies differing in functional orientation. It was expected that since therapeutic services tend to be provided in institutional settings, resource management services are outdoor oriented, and recreation and park services are community based programs, respondents from these agencies would tend to judge entry level competencies differently.

Hypotheses

To analyze the judgments of the four groups with regard to the competence needed by entry level employees relative to the derived scale and four subscales composed of subject and ability items, the following major hypothesis was formulated for testing. This major hypothesis was subdivided into five minor hypotheses and written in null form for statistical testing (see Chapter III).

The judgments of those engaged in providing leisure services

regarding the competencies needed by entry level employees will not be significantly different when measured on the total scale, the General subject and ability subscale, the Therapeutic Recreation oriented subscale, the Programming subscale or the Resource Management oriented subscale.

To evaluate the judgments of those engaged in providing leisure services regarding the competencies needed by entry level employees for success in leisure services jobs, the following major hypothesis was formulated for testing:

The judgments of persons engaged in providing leisure services regarding the competencies needed by entry level employees on the 65 subject and ability items is independent of the functional orientation of the agency.

Review of Literature

An ERIC search was conducted using keywords relating to the purposes of this study. Over two hundred "hits" were listed on computer output provided through the Iowa State University library reference facilities. Each of the referenced journal articles and reports was screened and those with apparent specific relationship to the study were reviewed. None was found to be directly related to this study.

The Journal of Leisure Research, published by the National Recreation and Park Association, was reviewed. The dissertation and thesis titles listed in these publications were also reviewed. No research was reported which pertained directly to this study.

The Therapeutic Recreation Journal and the Journal for Health, Physical Education and Recreation were specifically reviewed without finding research directly related to this study.

Additional sources which were reviewed to find related literature included the Education Index and Dissertation Abstracts. Several studies were found related to competencies needed by persons working in specific agriculture, home economics, and industrial education areas. None, however, were directly related to this study.

Whereas, no research was found with direct relationship to the specific purposes of this study, several writers (reported at the beginning of this chapter) indicated the importance of such research being done.

CHAPTER II. METHOD OF PROCEDURE

Delimitations of Investigation

The procedures of this study were to: 1) identify the jobs in leisure services which are defined as entry level for persons with formal education (or equivalent) beyond high school, 2) identify the salary levels of persons in these entry level jobs, 3) identify certain characteristics of persons engaged in providing leisure services, 4) identify selected characteristics of agencies providing leisure services, 5) identify the types and levels of competencies judged as needed by persons in entry level jobs, and 6) develop recommendations for educational strategy to be incorporated into post high school preparation programs.

In this study, these data have been limited to professional practitioners and board members presently involved in providing leisure services.

The Sample Studied

The sample surveyed consisted of the total membership of the Iowa Park and Recreation Association as of March 15, 1973, excluding educators, commercial members and students. The sample was comprised of 180 persons; 37 members of boards and commissions, 61 community based respondents, 31 in parks and conservation agencies, and 51 in therapeutic recreation settings.

The 180 questionnaires were mailed on May 16, 1973. A follow-up

letter was mailed on June 5, 1973 to encourage returns. Those who had not responded by June 14, 1973 were mailed a second questionnaire and asked to respond immediately. Of the 129 questionnaires returned, six were extremely limited in information and were eliminated from the study; two questionnaires were returned incomplete because the respondents had moved without a forwarding address. Thus, a total of 123 persons engaged in providing leisure services were included in the study. The representation of respondents in the sample by orientation of the agency is reported in Table 1.

Table 1. Respondents to questionnaire by affiliation with the Iowa Park and Recreation Association

Section of I.P.R.A.	Sample size	Total returns	Usable	% return
Therapeutic	51	42	39	82
Parks and conservation	31	26	26	83
Community	61	41	40	67
Board and commission	37	22	18	59
Total	180	131	123	73

Development of Instrument

The instrument used to gather the needed data was a questionnaire. This questionnaire, as shown in Appendix B, was mailed to each person in the sample according to the addresses supplied by the Iowa Park and Recreation Association. The same questionnaire was used for both the original and follow-up mailings.

The data used in this study were obtained from two parts of the questionnaire. Part I requested information to establish a personal and agency profile relating to the respondent. The data, providing personal related variables consisted of the age, level of administrative responsibility, number of years in the agency, level of formal education and degree status in the field. Agency related variables were the functional orientation of the agency, the number of full-time staff employed and the salary of the basic entry level job in the agency requiring post high school education (or equivalent). It was hypothesized that the agency orientation variable would be influential on how the respondent would judge the competencies needed for success by entry level employees.

Part II of the questionnaire was developed to determine the level of the competence needed by entry level employees on selected subject and ability items. This section, containing 65 such items, was designed so that the respondents could write a number corresponding to their judgment on the degree of competency needed for success by the designated entry level employee in their agency. Respondents were instructed to write (4) to represent "Mastery or Superior Competency", (3) to represent

"High Competency", (2) to represent "Moderate Competency", (1) to represent "Little Competency" and (0) to represent the judgment that the subject or ability was not applicable to the job.

In the development of the subject and ability items, items were sought which would be representative of the functions of practitioners in leisure services jobs. As previously stated, the National Recreation Education Accreditation Project specified suggested curriculum content standards that indicated the subject matter areas requiring knowledge and understanding to which undergraduate curricula should be addressed. Since the SPRE Policy and Position Statement suggested that professional entry should occur upon completion of the baccalaureate degree, it was determined that the indicated subject matter topics of the accreditation project were appropriate for consideration as competency indicators in this study. However, since a majority of professional emphasis standards set forth in the accreditation project were written from the view of students acquiring basic knowledge and an understanding of various aspects of leisure services, it was decided that supplemental indicators were needed to properly reflect the more general and technical abilities useful to practitioners. In order to represent more completely the functional domain of leisure service jobs, a review of job descriptions, college and university catalogues and related literature was undertaken. In the absence of reliable guidelines for deriving functional competency indicators in the various leisure services areas, an attempt was made to make rational selections based on relevance to both general and specialized functions of jobs in the different settings where such

services are provided. The topical competency indicators were derived in four categories. The first thirty-five items of the questionnaire (items 1-35) represented functions which were found in the review of sources to be generally applicable to all settings where leisure services are provided. The second group of items (items 36-40) were chosen to represent functions applicable to general recreation programming. The third group of items (items 46-55) were chosen to represent functions applicable to resource management type functions. The fourth group of items (items 56-65) were chosen to represent functions applicable to therapeutic recreation services.

Pretesting the Instrument

The instrument was developed by the researcher with the aid of advisory assistance from two university professors in recreation and park education, one recreation and park planning consultant, and one recreation and park executive. The questionnaire was pretested with two recreation and park executives, one recreation and park educator and three students who had completed all professional courses and field practicum. The purpose of the pretesting was to determine the clarity of each item and to determine if some items should be deleted and additional items added to the instrument. Results of the pretesting brought about changes to remove ambiguities and clarify the instructions of the instrument.

Collection of Data

On May 16, 1973 two cover letters (see Appendix A), the questionnaire and a stamped, self-addressed envelope were mailed to each of the 180 Iowa Park and Recreation members who were not educators, students or commercial members. The cover letter explained the purpose and importance of the study and asked for cooperation and participation in the study. A second cover letter was prepared by the President of the Iowa Park and Recreation Association and was attached to legitimize and reinforce the importance of the study. Both cover letters stated that the information requested would assist in reaching better decisions on professional curricula in leisure services.

A follow-up letter, as shown in Appendix C, was mailed on June 5, 1973 to all persons whose responses had not been received by that date (115 letters).

On June 15, 1973 a second cover letter was prepared by the researcher, as shown in Appendix D, and a second copy of the questionnaire (identical to the first) was mailed to the persons who had not responded by that date. On July 6, 1973 the last response to the questionnaire was received bringing the total to 131 responses. Of the 129 completed questionnaires, six were severely limited in information and unusable. Thus, a total of 123 returns were subjected to analysis for a sample size of 180.

Basic Assumptions

For the purposes of this study, the following assumptions were made:

1. Accurate, objective and unbiased answers were provided by the respondents to the questionnaire.
2. The items were representative of the subjects and abilities on which competency is needed for success by entry level employees in leisure services jobs.

Analysis and Treatment of Data

Data from the questionnaires were keypunched on IBM cards and verified. The facilities of the Computation Center at Iowa State University were used to process and analyze portions of these data. The Statistical Package for the Social Sciences (13) (SPSS) was utilized as the primary procedure for statistical computation (The Codebook, Breakdown, Fastabs, Pearson Correlation and Reliability procedures were applied to the data).

The data on level of competency were recoded so that all "0" responses equaled "1" and all "4" responses equaled "3". Thus the range for data analysis was 1 to 3 (Little to High).

Frequency counts, mean scores, correlations, chi square tests of independence, one-way classification analysis of variance and Scheffé' multiple comparisons of means were used in the analysis of the data. Frequency counts were used to record the number of responses relating to the selected variables. Correlations were used to determine relationships between the dependent and independent variables. The chi square test was used to determine independence between selected variables

while the mean scores gave scale values to each variable. In all tests of independence where a chi square was used, rows and/or columns of cells which did not have the required frequency counts were combined.

The questionnaire was composed of 35 items selected for their general applicability to leisure services functions and three 10 item subscales. These 10 item subscales represented three specific functional orientations: general recreation programming, resource management and therapeutic recreation services. Reliability and item analysis procedures were used to determine that the units of measurement were of sufficient reliability to justify the assumption of additivity of the items. One-way classification analysis of variance was used to determine significant differences among the agency functional orientations and Scheffé' multiple comparisons were computed to interpret significant differences on the questionnaire and its subscales.

The chi square test of independence was used to determine the relative applicability of each item to the four agency functional orientations. Mean scores were used to further explain significant chi square values and to establish levels of competency need on which the relative values were based.

CHAPTER III. FINDINGS

The findings of this study are discussed in five general areas:

- 1) characteristics of the sample, 2) reliability of the questionnaire subscales, 3) one-way classification analyses of variance on the derived scale and subscales, 4) judgments of entry level competency needs, and 5) mean scores of competency needs.

Characteristics of the Sample

These data for this study were gathered and analyzed from 123 persons engaged in providing leisure services in the State of Iowa. The characteristics of these respondents by age, administrative responsibility, number of years with agency, formal education, degree status in the field, functional orientation of the agency, number of staff employed and level at which entry occurs are shown in Table 2.

Over 84 percent of the persons sampled were in the 26 to 55 age range; 51 persons being in the "26-40" classification and 53 being in the "41-55" class. A slightly smaller number of respondents were 55 years of age or more (17) compared to respondents of age 25 or less (22).

The level of responsibility in the agency reported by respondents was predominantly in the administrator category (62). The smallest number of respondents fell into the policy level (11).

In considering the number of years the respondents had been associated with the agency, the greatest number (51) had tenure of 3 years

Table 2. Characteristics of persons engaged in providing leisure services

Independent variable	Number	Percent
Age		
25 or less	22	17.9
26 - 40	51	41.4
41 - 55	53	43.1
56 or more	17	13.8
Administrative level		
Leadership	13	10.6
Supervisory	37	30.0
Administrator	62	50.4
Policy	11	8.9
Years with agency		
3 or less	51	41.5
4 - 9	44	35.8
10 - 14	11	8.9
15 or more	17	13.8
Formal education		
High school or less	15	12.2
2 years college	9	35.8
Bachelor degree	71	57.7
Graduate degree	28	22.8
Degree status		
No degree in field	73	59.3
Degree in field	50	40.6
Agency orientation		
Therapeutic	38	30.9
Resource mgt.	15	12.2
General Recreation	26	21.1
Parks and Recre.	44	35.8
Number of staff		
4 or less	30	34.4
5 - 8	38	30.9
9 - 12	20	16.3
13 or more	35	28.5
Entry level salary		
\$6000 or less	17	13.8
\$6100 - \$7500	42	30.9
\$7600 - \$9000	38	30.9
\$9100 or more	26	21.1

or less. The smallest number fell into the "10-14" years category (11).

Over one-half of those engaged in providing leisure services (71) held a baccalaureate degree (58 percent). The smallest number of respondents fell into the "2 years college" category (9).

Fifty persons engaged in providing leisure services held a degree in a recreation and park related discipline while 73 (59 percent) held no degree in a related field.

The largest number of persons engaged in providing leisure services represented agencies with a combined parks and recreation orientation (44). The smallest number was found in the resource management category (15).

The number of staff employed in agencies represented by respondents ranged from 20 in the "9-12" class to 38 in the "5-8" group.

The base annual salary of entry level persons in the leisure service agencies fell into the \$6100-\$7500 category (42). It was noted also that 38 and 26 persons respectively were employed in the \$7600-\$9000 class and the \$9100 or more class.

Reliability of Questionnaire Scale and Subscales

The instrument for this study included 65 subject and ability items which had been rationally derived in 4 subscales. In order to determine the appropriateness of the instrument for further statistical treatments, reliability coefficients were computed on responses over all items (scale) and each of the subscales using a subprogram developed by David Specht (18). A single factor repeated measurement design

analysis of variance procedure was also applied to the data in order to further evaluate the statistical reliability of the scale and subscales. In this way it was possible to establish evidence regarding the additivity of the items; a basic assumption of analysis of variance.

The F ratio was highly significant at the $P = .001$ level for the total scale and each of the subscales (see Tables 3 through 7)¹. Cronbach alpha reliability coefficients were as follows: .951 over all items, .937 for the 35 item General recreation and park subscale, .893 for the 10 item Programming subscale, .893 for the 10 item Resource Management subscale, and 0.95 for the 10 item Therapeutic Recreation subscale. The slightly lower coefficients on the 10 item subscales were a function of the fewer number of items included.

Evaluation of statistics relating to the scale and subscales indicated that they were appropriate as measures in the analysis of variance treatments in the study.

One-way Classification Analyses of Variance

To evaluate the judgments of persons engaged in providing leisure services regarding needed entry level competencies, the following hypothesis was stated:

HYPOTHESIS 1: The judgments of persons engaged in providing leisure services regarding the competencies needed by entry level employees will not be significantly different when compared on the agency orientation factor.

¹For this study, any value exceeding the requirement for significance at the 5 percent level of confidence has been considered significant and indicated by *, and any value exceeding the requirement for significance at the 0.1 percent level of confidence has been considered highly significant and indicated by **.

Table 3. Analysis of variance and Cronbach reliability coefficient for 65 questionnaire items (scale)

Source of variation	Sums of squares	Degrees of freedom	Mean squares	F ratio
Between people	960.82	105	9.15	15.995**
Within people	3881.08	6784	.572	
Total	4841.90	6889		
Alpha = 0.95		Standardized item alpha = 0.95		

**
P ≤ .001.

Table 4. Analysis of variance and Cronbach reliability coefficient for the General subscale (items 1 - 35)

Source of variation	Sums of squares	Degrees of freedom	Mean squares	F ratio
Between people	627.80	105	5.979	11.688**
Within people	1843.66	3604	.512	
Total	2371.46	3709		
Alpha = 0.93		Standardized item alpha = 0.94		

**
P ≤ .001.

Table 5. Analysis of variance and Cronbach reliability coefficient
for Programming subscale (items 36 - 45)

Source of variation	Sums of squares	Degrees of freedom	Mean squares	F ratio
Between people	301.86	105	2.875	8.0807**
Within people	339.40	954	.356	
Total	641.26	1059		
Alpha = 0.89		Standardized item alpha = 0.89		

** $P \leq .001$.

Table 6. Analysis of variance and Cronbach reliability coefficient
for Resource Management subscale (items 46 - 55)

Source of variation	Sums of squares	Degrees of freedom	Mean squares	F ratio
Between people	346.91	105	3.304	8.3166**
Within people	379.00	954	.397	
Total	775.91	1059		
Alpha = 0.89		Standardized item alpha = 0.90		

** $P \leq .001$.

Table 7. Analysis of variance and Cronbach reliability coefficient for Therapeutic Recreation subscale (items 56 - 65)

Source of variation	Sums of squares	Degrees of freedom	Mean squares	F ratio
Between people	513.69	105	4.89	21.47**
Within people	217.40	954	0.23	
Total	731.09	1059	0.69	
Alpha = 0.95		Standardized item alpha = 0.95		

** $P \leq .001$.

Five hypotheses in the null form were tested. The results of the analysis are presented after each hypothesis.

HYPOTHESIS 1a: There are no differences on the 65 item total scale between respondents representing different agency orientations.

As shown in Table 8, hypothesis 1a was rejected at the $P = .05$ level of significance. Multiple comparisons¹, as shown in Table 9, were then computed according to the Scheffé method (15, p. 388). Evaluation of these comparisons led to the determination that the judgments of persons engaged in providing general recreation services are different from those engaged in providing combined parks and recreation programs. The mean score of the parks and recreation group was higher than the mean score of the general recreation group.

HYPOTHESIS 1b: There are no differences on the General subscale

¹In all multiple comparisons \bar{X}_1 represents the therapeutic recreation group, \bar{X}_2 represents the resource management group, \bar{X}_3 represents the recreation group and \bar{X}_4 represents the parks and recreation group. The symbol $\hat{\psi}$ is the estimate of contrast and $\hat{\sigma}_{\hat{\psi}}$ is the estimate of the standard deviation of the estimate of contrast.

Table 8. One-way classification analysis of variance on the 65 item scale by the agency orientation factor

Source of variation	Sums of squares	Degrees of freedom	Mean squares	F ratio
Between groups	24403.06	3	8134.35	2.9179*
Within groups	331741.06	119	2787.74	
Total		122		

* $P \leq .05$.

Table 9. Multiple comparison of means on 65 item scale by agency orientation factor

Contrasts	$\hat{\psi}$	$\hat{\sigma}_{\hat{\psi}}^2$	$\hat{\psi} \pm \hat{\sigma}_{\hat{\psi}} (2.83)$	F ratio	Difference $\neq 0$
$\bar{X}_1 - \bar{X}_2$	-10.159	13.62	-48.7, 28.4	-.75	
$\bar{X}_1 - \bar{X}_3$	13.359	10.34	-15.9, 42.6	1.29	
$\bar{X}_1 - \bar{X}_4$	-23.253	8.56	-47.5, 1.0	-2.72	
$\bar{X}_2 - \bar{X}_3$	23.518	13.62	-15.0, 62.1	1.73	
$\bar{X}_2 - \bar{X}_4$	-13.094	13.62	-51.6, 25.5	-.96	
$\bar{X}_3 - \bar{X}_4$	-36.612	10.34	-65.9, -7.4	3.54	-- ^a

^aContrasts in which the confidence interval does not include 0.

(items 1 - 35) between respondents representing different agency orientations.

Table 10 shows the results of the statistical testing of hypothesis 1b which was rejected at the $P = .05$ level of significance. Table 11 depicts the multiple comparisons which were made on group means. Based on these comparisons, it was determined that the responses of the parks and recreation group were different from both the therapeutic recreation group and the general recreation group on the General subscale.

Table 10. One-way classification analysis of variance on the General subscale (items 1 - 35) by the agency orientation factor

Source of variation	Sums of squares	Degrees of freedom	Mean squares	F ratio
Between groups	6648.13	3	2216.04	3.3718*
Within groups	78210.94	119	657.23	
Total	84859.25	122		

* $p \leq .05$.

Table 11. Multiple comparison of means on the General subscale (items 1 - 35) by the agency orientation factor

Contrasts	$\hat{\psi}$	$\hat{\sigma}_{\hat{\psi}}$	$\hat{\psi} \pm \hat{\sigma}_{\hat{\psi}} (2.83)$	F ratio	Difference $\neq 0$
$\bar{X}_1 - \bar{X}_2$	-10.170	6.62	-28.9, -8.56	-1.54	
$\bar{X}_1 - \bar{X}_3$	1.532	5.03	-12.7, 15.77	.30	
$\bar{X}_1 - \bar{X}_4$	-14.987	4.16	-26.8, -3.21	-3.60	-- ^a
$\bar{X}_2 - \bar{X}_3$	11.702	6.62	-7.0, 30.44	1.76	
$\bar{X}_2 - \bar{X}_4$	-4.817	6.62	-23.6, 13.92	-.75	
$\bar{X}_3 - \bar{X}_4$	-16.519	5.03	-30.8, -2.28	3.28	-- ^a

^aContrasts in which the confidence interval did not include 0.

HYPOTHESIS 1c: There are no differences on the Programming subscale (items 36 - 45) between respondents representing different agency orientations.

Table 12 shows the results of the analysis of variance relating to hypothesis 1c. The hypothesis was not rejected at the $P = .05$ level of significance which led to the determination that no difference existed as measured on the recreation Programming subscale (items 36 - 45).

Table 12. One-way classification analysis of variance on the Programming subscale (items 36 - 45)

Source of variation	Sums of squares	Degrees of freedom	Mean squares	F ratio
Between groups	622.71	3	207.57	2.2048
Within groups	11202.97	119	94.14	
Total	11825.68	122		

HYPOTHESIS 1d: There are no differences on the Resource Management subscale (items 46 - 55) between respondents representing different agency orientations.

Hypothesis 1d was rejected at the $P = .001$ level of significance as shown in Table 13. Multiple comparisons were made on group means as shown in Table 14. It was determined on the basis of this analysis

Table 13. One-way classification analysis of variance on the Resource Management subscale (items 46 - 55) by the agency orientation factor

Source of variation	Sums of squares	Degrees of freedom	Mean squares	F ratio
Between groups	2208.09	3	736.03	8.7834**
Within groups	9971.95	119	83.80	
Total	12180.04	122		

** $P \leq .001$.

Table 14. Multiple comparison of means on the Resource Management subscale (items 46 - 55) by the agency orientation factor

Contrasts	$\hat{\psi}$	$\hat{\sigma}_{\hat{\psi}}$	$\hat{\psi} \pm \hat{\sigma}_{\hat{\psi}} (2.83)$	F ratio	Difference $\neq 0$
$\bar{X}_1 - \bar{X}_2$	-8.965	2.36	-15.6, -2.29	-3.80	-- ^a
$\bar{X}_1 - \bar{X}_3$.022	1.80	- 4.9, 5.12	.01	
$\bar{X}_1 - \bar{X}_4$	-8.291	2.36	-15.6, -2.29	-3.51	-- ^a
$\bar{X}_2 - \bar{X}_3$	8.987	2.36	2.3, 15.64	3.80	-- ^a
$\bar{X}_2 - \bar{X}_4$.674	2.36	- 6.0, 7.35	.28	
$\bar{X}_3 - \bar{X}_4$	-8.313	1.80	-13.4, -3.22	4.62	-- ^a

^aContrasts in which the confidence interval did not include 0.

that 1) the judgments of persons in resource management were different from those in all other groups except the parks and recreation group, 2) the judgments of persons in the parks and recreation group were different from those in all except the resource management group, 3) no statistically significant contrasts were found (as measured on this

subscale) between those persons engaged in therapeutic recreation services and general recreation, and 4) no statistically significant contrasts were found between the resource management group and the parks and recreation group. The means of the resource management classification and the parks and recreation classification were higher as measured on the subscale compared to the two remaining groups.

HYPOTHESIS 1e: There are no differences on the Therapeutic Recreation subscale (items 56 - 65) between respondents representing different agency orientations.

The analysis of variance statistics used in testing hypothesis 1e are provided in Table 15. The F ratio of 3.2667 led to the rejection of the hypothesis at the $P = .025$ level of significance. Multiple comparison procedures were then computed, as shown in Table 16, which indicated that the therapeutic services group and the general recreation group were different from each other. A significant contrast was observed in the comparison of the therapeutic services group and the resource management group but the confidence interval, established by the Scheffé' procedure, contained 0 which detracted from a confidence that the two groups were different.

Table 15. One-way classification analysis of variance on the Therapeutic Recreation subscale (items 56 - 65) by the agency orientation factor

Source of variation	Sums of squares	Degrees of freedom	Mean square	F ratio
Between groups	1365.62	3	455.21	3.2667*
Within groups	16582.43	119	139.35	
Total	17948.05	122		

* $P \leq .05$.

Table 16. Multiple comparison of means on the Therapeutic Recreation subscale (items 56 - 65) by the agency orientation factor

Contrasts	$\hat{\psi}$	$\hat{\sigma}_{\hat{\psi}}$	$\hat{\psi} \pm \hat{\sigma}_{\hat{\psi}} (2.83)$	F ratio	Difference \neq
$\bar{X}_1 - \bar{X}_2$	6.55	3.04	- 2.1, 15.15	3.06	-- ^a
$\bar{X}_1 - \bar{X}_3$	8.79	2.32	2.2, 15.36	3.79	
$\bar{X}_1 - \bar{X}_4$	2.63	1.91	- 2.8, 8.03	1.38	
$\bar{X}_2 - \bar{X}_3$	2.25	3.04	- 6.4, 10.85	.74	
$\bar{X}_2 - \bar{X}_4$	-3.92	3.04	-12.5, 4.69	-1.29	
$\bar{X}_3 - \bar{X}_4$	-6.16	2.32	-12.8, .40	-2.66	

^a Contrasts in which confidence interval did not include 0.

Judgments of Entry Level Competency Needs

Contingency tables were constructed to statistically test independence between the classifications of agency functional orientation and the relative competency need on the questionnaire items. The chi square test was used to determine the probability of the observed distribution of frequencies falling into the cells of the contingency tables if the level of competency need was independent of the orientation of the agencies.

One hypothesis in the null form was tested and reported in the body of this study. Five additional hypotheses were tested and reported in Appendix E as adjunct information but not specifically a part of this study.

HYPOTHESIS 2: Judgments of persons engaged in providing leisure services regarding the competency needed by entry level employees will be independent of the functional orientation of the agency.

Table 19 (see Appendix E) shows the contingency tables and chi square tests of independence which were computed. Tests on all items with the exception of items 2, 5, 6, 7, 10, 12, 15, 16, 17, 18, 19, 20, 23, 27, 28, 33, 36 and 40 were significant at the $P = .05$ level and the hypothesis was rejected. Hypothesis 2 was not rejected for these listed items and judgments on them were determined to be independent of agency orientation.

Mean Scores of Competency Needs

Table 17 provides a summary of the mean scores of competency need by agency orientation groups and the computed chi square values.

Correlation of Subscales

Table 25 (see Appendix E) shows the correlation coefficients computed on the total scores of all respondents over the four subscales. The General subscale (items 1 - 35) correlated highly with all other subscales (Programming 0.82, Resource Management 0.85 and Therapeutic Recreation 0.79). The Programming subscale (items 36 - 45) correlated highly with the General and Therapeutic Recreation subscales (0.82 and 0.86 respectively) but showed a much lower relationship to the Resource Management subscale (0.67). The Resource Management subscale (items 46 - 55) correlated highly only with the General subscale (0.85) with coefficients of 0.67 and 0.68 respectively computed for the Programming and Therapeutic Recreation subscales. The Therapeutic Recreation subscale (items 56 - 65) was related highly to the General and Programming subscales (0.79 and 0.86) but somewhat lower to the Resource Management subscale (0.68).

These correlation coefficients indicated that the General, Programming and Therapeutic subscales were similar in their overall relationships but that the Resource Management subscale was less similar to all except the General subscale.

Table 17. Mean scores and chi square values for subjects and abilities by functional orientation of agency

Subjects and abilities	Agency orientation				Total mean	Chi square
	Thera- peutic	Re- source	Rec- reation	Parks & Rec		
1. Recreation activities and program planning.	2.81	1.76	2.84	2.64	2.64	32.56**
2. Leadership and motivation techniques.	2.89	2.64	2.88	2.81	2.83	9.62
3. Safety regulations and practices.	2.75	2.80	2.46	2.57	2.63	13.92*
4. Equipment and supplies; control, use and maintenance.	2.52	3.00	2.42	2.46	2.53	15.23*
5. Recreation facilities; use-planning and operation	2.48	2.69	2.61	2.57	2.56	6.02
6. Acquisition of areas and facilities.	2.20	2.15	1.64	2.08	2.02	9.21
7. Analysis of supply/ demand and cost/ benefit.	1.88	2.26	1.88	2.18	2.03	11.72

* $P \leq .05$.

** $P \leq .001$.

Table 17 (Continued)

Subjects and abilities	Agency orientation				Total mean	Chi square
	Therapeutic	Re-source	Rec-reation	Parks & Rec		
8. Management; theories policies and practices.	2.16	2.66	2.32	2.43	2.35	6.13
9. Surveys and research methods.	1.58	2.15	1.80	1.80	1.77	14.09*
10. Statistical analysis and computer utilization.	1.36	1.61	1.40	1.34	1.39	8.30
11. Accounting and business administration.	1.55	2.15	1.80	2.27	1.91	26.23**
12. Audio visual aids; preparation and use.	2.29	2.07	2.04	2.02	2.12	4.44
13. Personnel management; recruitment, selection, supervision.	2.13	2.53	2.65	2.67	2.48	16.82*
14. Budgets; revenues, appropriations and expenditures.	1.94	2.35	2.24	2.60	2.28	17.17*
15. Laws, legislative processes and governmental organization.	1.66	2.00	1.56	2.13	1.83	10.35
16. Evaluation and reporting; procedures and techniques	2.75	2.64	2.50	2.65	2.64	4.67

Table 17 (Continued)

Subjects and abilities	Agency orientation				Total mean	Chi square
	Thera- peutic	Re- source	Rec- reation	Parks & Rec		
17. Insurance; purposes and types.	1.61	1.66	1.48	2.00	1.71	11.57
18. Organizational theory and methods.	2.35	2.23	2.30	2.44	2.35	1.15
19. Public relations; procedures and methods.	2.55	2.72	2.84	2.81	2.73	9.30
20. Standards for facilities and programs.	2.40	2.71	2.42	2.43	2.45	5.23
21. Construction of buildings and facilities.	1.66	2.33	1.60	2.20	1.91	14.55*
22. Maintenance; buildings, grounds and utilities.	1.63	2.85	1.64	2.26	2.00	33.69**
23. Purchasing; specifications and procedures.	2.22	2.50	2.04	2.34	2.25	4.80
24. Parliamentary procedures with organized groups.	1.58	1.78	1.96	2.14	1.87	14.34*
25. Concessions; operation and management.	1.27	2.00	1.44	1.88	1.60	21.64**

Table 17 (Continued)

Subjects and abilities	Agency orientation				Total mean	Chi square
	Therapeutic	Re-source	Recreation	Parks & Rec		
26. Contracts, agreements and leases.	1.27	2.14	1.68	2.13	1.75	23.08**
27. Leisure services; history, philosophy and meaning.	2.41	2.07	2.15	2.22	2.25	6.96
28. Community organizations; purposes, programs, relationships.	2.37	2.20	2.46	2.45	2.40	3.22
29. Human behavior and learning theory	2.81	2.28	2.57	2.33	2.54	18.97*
30. Group dynamics and social psychology.	2.76	1.84	2.50	2.05	2.37	32.84**
31. Tournaments; planning and conducting.	2.40	1.33	2.46	2.46	2.32	22.80**
32. Aquatics; operation, management.	1.75	1.50	1.80	2.17	1.88	12.94*
33. Communications; written and oral.	2.58	2.57	2.69	2.76	2.66	7.14
34. Administration; practices and procedures.	2.02	1.66	1.84	2.00	1.93	14.77*

Table 17 (Continued)

Subjects and abilities	Agency orientation				Total mean	Chi square
	Therapeutic	Resource	Recreation	Parks & Rec		
35. Impact studies (e.g. environmental impact).	1.50	2.14	1.65	2.05	1.79	5.13
36. Art; graphics and plastic.	2.02	1.66	1.84	2.00	1.93	5.13
37. Crafts; nature, industrial, automotive, marine.	2.27	1.41	2.00	2.02	2.03	12.68*
38. Dance; folk, social, rhythmic, choreographed.	2.27	1.08	1.84	1.83	1.90	27.36**
39. Dramatics; manipulative, creative, forensic, theater.	2.00	1.08	1.88	1.88	1.83	17.92*
40. Adult and continuing education; principles and practices.	1.69	1.46	1.96	2.05	1.84	11.54
41. Sports; individual, dual, team, group.	2.62	1.41	2.26	2.37	2.33	31.23**
42. Music; vocal, instrumental.	2.08	1.08	1.88	1.80	1.83	20.37*
43. Science; biological, physical, natural	1.61	2.30	1.50	1.85	1.74	15.26*

Table 17 (Continued)

Subjects and abilities	Agency orientation				Total mean	Chi square
	Thera- peutic	Re- source	Rec- reation	Parks & Rec		
44. Social activities; formal, informal.	2.75	1.38	2.15	2.21	2.28	48.61**
45. Special events; exhibi- tions, festivals, musicals.	2.63	1.30	2.53	2.28	2.34	49.93**
46. Mechanical machinery; operation and mainte- nance.	1.55	2.71	1.52	2.10	1.87	33.34**
47. Trees, shrubs, flowers and plants; nurseries and gardens.	1.33	3.00	1.32	2.14	1.82	61.63**
48. Camps and camping; day, residential, tourist.	2.24	1.92	1.61	2.19	2.04	19.30*
49. Outdoor recreation facility management; golf courses, ice-skating rinks, swimming facilities, marinas, etc.	1.61	2.23	1.84	2.45	2.02	21.33*
50. Indoor special-purpose facility operation and management; indoor pools, arenas, youth centers, etc.	1.67	2.00	2.50	2.28	2.01	27.43**

Table 17 (Continued)

Subjects and abilities	Agency orientation				Total mean	Chi square
	Thera- peutic	Re- source	Rec- reation	Parks & Rec		
51. Heating, refrigeration, plumbing and electrical equipment.	1.16	1.58	1.28	1.63	1.39	21.17*
52. Janitorial services and grounds maintenance practices.	1.19	2.42	1.36	2.00	1.66	37.09**
53. Operation of vehicular equipment; mowers, sweepers, loaders, snow-mobiles, all-terrain, etc.	1.33	2.42	1.24	1.95	1.66	32.31**
54. Landscape design and development.	1.25	2.53	1.38	2.02	1.69	35.97**
55. Interpretive centers; wildlife areas, zoological gardens.	1.30	2.00	1.32	1.91	1.59	19.97*
56. Medical terminology related to therapeutic services.	2.56	1.00	1.32	1.57	1.56	61.16**
57. Treatment and custodial services; organization and operation.	1.86	1.23	1.32	1.57	1.56	13.17*

Table 17 (Continued)

Subjects and abilities	Agency orientation				Total mean	Chi square
	Thera- peutic	Re- source	Rec- reation	Parks & Rec		
58. Anatomy, physiology and kinesiology.	1.94	1.00	1.32	1.38	1.51	24.34**
59. Psychology related to the atypical individual.	2.72	1.30	1.73	1.47	1.92	59.88**
60. Prescriptive programming for persons with physical and emotional limitations.	2.63	1.00	1.72	1.41	1.86	56.09**
61. Group therapy procedures and practices.	2.45	1.00	1.48	1.35	1.72	55.23**
62. Guidance and counseling; individual and group.	2.47	1.08	1.80	1.55	1.87	36.53**
63. Physical and neurological defects of individuals.	2.48	1.08	1.25	1.34	1.69	54.15**
64. Drugs; identification of and effects on individuals.	2.27	1.33	1.65	1.61	1.81	19.36*
65. Behavior factors associated with the ill and handicapped.	2.73	1.08	1.69	1.50	1.92	66.69**

CHAPTER IV. DISCUSSION

This study was undertaken to assist in the determination of relevant competencies needed by persons entering the work force in leisure services. Such information will allow more informed decisions to be made in related professional preparation curriculums in colleges and universities. The study was designed to ascertain the level of competency needed by entry level persons. No effort was made to determine competency needs relating to subjects ordinarily included in General Education requirements in higher education institutions, important as these may be to success in employment.

Limitations of the Study

One limitation of this study was in the instrument used to determine the competency needs of entry level employees. Because the instrument was developed solely for this study, validity and reliability data were not previously available. Although reliabilities on the scale and subscales were .89 and above with this sample, repetition could produce different results.

A second limitation was in the selection of subject and ability items to be included in the study. Although primarily based on recommendations in the Accreditation Project developed by national leaders in the field, it was not possible to include all relevant subjects and abilities in the instrument.

A third limitation of this study was the assignment of subject and

ability items to the subscales. Although demonstrated to be reliable subscales, caution should be used in interpretation.

A fourth limitation of this study was the frame of reference used by respondents to the questionnaire items regarding their judgments of entry level competency need. It cannot be determined whether their judgments were biased by their relationships in the agency or personality factors.

Characteristics of Sample

The sample for this study consisted of 123 persons engaged in providing recreation and park (leisure) services in the State of Iowa. The availability of these persons in the state and limitations on the resources available for the study were primary considerations in the determination of the geographical boundaries included. Additionally, the mission of Iowa State University is primarily directed toward serving the needs of the state. Information is needed for further development of the emerging curriculum at that university in Leisure Services. Although further research may cause rejection of this contention, there is no present evidence which opposes the generalizability of these findings beyond the boundaries of the State of Iowa.

The agency related characteristic of agency functional orientation was used to form the treatments for one-way classification analysis of variance and for development of classifications for contingency tables. Chi square tests relating to other independent variables are reported in Tables 20 through 24 in Appendix E.

Although each of the subject and ability items were either specifically or generally a part of the suggested competencies in the Accreditation Project (1), the items were rationally derived and grouped into subscales. Reliability data were computed on the subscales and the questionnaire scale to evaluate their usefulness for conducting an analysis of variance statistical treatment.

It is generally indicated in the literature that scale and subscale reliabilities of .80 or higher produce an instrument useful for such analysis (14). The lowest Cronbach alpha reliability coefficient was computed for the 10 item recreation Programming subscale (.89). The total scale yielded the highest reliability coefficient (.95).

To further evaluate the scale and subscales, a single factor repeated measurement design analysis of variance was computed. This analysis further substantiated the use of the scale and subscales for further statistical treatments (see Chapter IV, Tables 3 through 7).

Differences in General Competencies Needed

It was of importance to the purposes of this study to determine whether differences existed among the persons engaged in providing leisure services. Data were collected from persons associated with agencies with four functional program emphases: 1) therapeutic services, 2) resource management, 3) recreation and 4) parks and recreation.

Agencies providing therapeutic recreation programs are generally found in an institutional setting and are primarily concerned with

providing recreation activities for residents. These recreation programs often serve a therapeutic function in conjunction with medical and psychological functions.

Those agencies involved in resource management are generally concerned with facilitation of recreation opportunities and are not often engaged in direct recreation programming and leadership. Land, water and facility management in parks, reservations, conservancy districts, wildlife refuges or related areas are major concerns of this group.

Two major types of local community agencies are involved in providing leisure services: 1) those engaged in providing recreation services only, and 2) those engaged in providing both the parks and recreation function. Where there exists an autonomous recreation department, there is usually a separate park department. In those cases the park respondents were logically classified under the resource management category. The "Recreation" classification included those agencies and persons engaged in providing only the recreation function in the public and private sector. Where the agency had a combined parks and recreation function, these agencies and persons were classified in the "Parks and Recreation" group.

Significant differences between groups were found on the total scale and on all subscales except the 10 item Programming subscale. That subscale was composed of subject and ability items dealing with the provision of recreation program activities.

On the basis of analysis of variance and multiple comparisons several findings were made. First, on all questionnaire subject and

ability items, the judgments of persons engaged in providing recreation programs only were different from those who were engaged in providing both parks and recreation services. The comparison of the means of the two groups led to the conclusion that those engaged in both the parks and recreation functions judged entry level competency needs at a higher level on more of the subjects and abilities.

Second, on the 35 item General subscale, the judgments of those persons engaged in providing the combined parks and recreation service function were different from those engaged in providing only recreation program services and those engaged in providing therapeutic recreation services. In both cases, those in the combined parks and recreation group scored higher on the subscale.

Third, on the 10 item Programming subscale, no significant differences were found between the four treatment groups leading to the conclusion that the four groups judged competency need on the subjects and abilities of somewhat equal importance to entry level success in their agency.

Fourth, on the 10 item Resource Management subscale, the judgments of the parks and recreation group were not found different from the resource management group. However, both the park and recreation group and the resource management group were different (and scored higher) compared to the recreation and therapeutic groups.

Fifth, on the 10 item Therapeutic Recreation subscale, the judgments of the therapeutic group were different (and scored higher) compared to the recreation group. A significant F ratio ($P \leq .05$) was

found in the comparison of means between the therapeutic group and the resource group but could not be declared different by the Scheffé' method of multiple comparisons.

Based on these findings four inferences were made. First, compared to the other groups, a greater general and specific competency need exists for persons entering the field of leisure services in combined parks and recreation departments.

Second, a relative higher level of competency is needed in resource management by persons entering the field in departments responsible for resource management functions. Competency in recreation programming is also needed by these persons.

Third, a relative higher level of competency is needed in therapeutic recreation by persons entering the employment of agencies who provide therapeutic recreation services. These persons also need competency in recreation programming.

Fourth, a competency need exists in recreation programming for persons entering departments providing only recreation services.

Judgments of Entry Level Competency Needs

The analysis of variance and multiple comparisons affirmed the contention that entry level persons in the four leisure service settings require different types and/or levels of competency.

An evaluation of the 65 subject and ability items by the independent variable of agency orientation was conducted. By using the chi square test of independence, this evaluation revealed the probability of such

distributions in responses occurring by chance if the variables were independent. Where this probability was less than $P = .05$, a lack of independence was concluded and the means were evaluated to further describe the relationship of competency need to the independent variable classifications.¹

The following discussion is divided into five parts: 1) competencies generally needed by entry level employees, 2) competencies needed by entry level employees in therapeutic recreation, 3) competencies needed by entry level employees in resource management, 4) competencies needed by entry level employees in recreation services, and 5) competencies needed by entry level employees in parks and recreation.

Competencies generally needed by all entry level employees

On 19 of the subject and ability items, competency need was found to be independent of agency orientation. It was concluded that the level of competency need, expressed by the overall mean score on the item, was generalizable to all groups.

Five subjects and abilities were found to demand a high general competency (mean scores of 2.50 or higher). The items were:

- 2. Leadership and motivation techniques.
- 5. Recreation facilities; use-planning and operation.
- 16. Evaluation and reporting; procedures and techniques.
- 19. Public relations; procedures and methods.
- 33. Communications; written and oral.

Thirteen additional items were found to demand a moderate general

¹Findings relating to chi square tests conducted on contingency tables formed by the independent variables of age, administrative level, years with the agency, level of formal education and entry level (as expressed by salary) are included in Appendix E.

competency (mean scores between 1.50 and 2.495). The items were:

6. Acquisition of areas and facilities.
7. Analysis of supply/demand and cost/benefit.
8. Management; theories, policies and practices.
12. Audio visual aids; preparation and use.
15. Laws; legislative processes and governmental organization.
17. Insurance; purposes and types.
18. Organizational theory and methods.
20. Standards for facilities and programs.
23. Purchasing; specifications and procedures.
27. Leisure services; history, philosophy and meaning.
28. Community organizations; purposes, programs, relationships.
36. Art; graphic and plastic.
40. Adult and continuing education; principles and practices.

One subject and ability item was found to demand little general competency by employees (mean score below 1.50). That item was:

10. Statistical analysis and computer utilization.

Competencies needed by entry level persons in therapeutic recreation

The therapeutic recreation group was found to be associated with a relative higher level of competency need compared to other groups on

23 items:

1. Recreation activities and program planning.
3. Safety regulations and practices.
29. Human behavior and learning theory.
30. Group dynamics and social psychology.
31. Tournaments; planning and conducting.
37. Crafts; nature, industrial, automotive, marine.
38. Dance; folk, social, rhythmic, choreographed.
39. Dramatics; manipulative, creative forensic, theater.
41. Sports; individual, dual, team, group.
42. Music; vocal instrumental.
44. Social activities; formal, informal.
45. Special events; exhibitions, festivals, musicals.
48. Camps and camping; day, residential, tourist.
56. Medical terminology related to therapeutic services.
57. Treatment and custodial services; organization, operation.
58. Anatomy, physiology and kinesiology.
59. Psychology related to the atypical individual.
60. Prescriptive programming for persons with physical and emotional limitations.

61. Group therapy procedures and practices.
62. Guidance and counseling; individual and group.
63. Physical and neurological defects of individuals.
64. Drugs; identification of and effects on individuals.
65. Behavior factors associated with the ill and handicapped.

The therapeutic group was found to be associated with a relatively low level of competency need compared to other groups on 20 items:

9. Surveys and research methods.
11. Accounting and business administration.
14. Budgets; revenues, appropriations and expenditures.
21. Construction of buildings and facilities.
22. Maintenance; buildings, grounds and utilities.
24. Parliamentary procedures with organized groups.
25. Concessions; operation and management.
26. Contracts; agreements and leases.
34. Administration; practices and procedures.
35. Impact studies (e.g. environmental impact).
43. Science; biological, physical, natural.
46. Mechanical machinery; operation and maintenance.
47. Trees, shrubs, flowers and plants; nurseries and gardens.
49. Outdoor recreation facility management; golf courses, ice-skating rinks, swimming facilities, marinas, etc.
50. Indoor special purpose facility operation and management; indoor pools, arenas, youth centers, etc.
51. Heating, refrigeration, plumbing and electrical equipment.
52. Janitorial services and grounds maintenance practices.
53. Operation of vehicular equipment; mowers, sweepers, loaders, snowmobiles, all-terrain, etc.
54. Landscape design and development.
55. Interpretive centers, wildlife areas, zoological gardens.

Competencies needed by entry level employees in resource management

On 18 subject and ability items the resource management group was found to be associated with a relatively high competency need compared to the groups. Those items were:

3. Safety regulations and practices.
4. Equipment and supplies; control, use and maintenance.
9. Surveys and research methods.
11. Accounting and business administration.
13. Personnel management; recruitment, selection, supervision.
21. Construction of buildings and facilities.

- 22. Maintenance; buildings, grounds and utilities.
- 25. Concessions; operation and management.
- 26. Contracts, agreements and leases.
- 35. Impact studies (e.g. environmental impact).
- 43. Science; biological, physical, natural.
- 46. Mechanical machinery; operation and maintenance.
- 47. Trees, shrubs, flowers and plants, nurseries and gardens.
- 49. Outdoor recreation facility management; golf courses, ice-skating rinks, swimming facilities, marinas, etc.
- 52. Janitorial services and grounds maintenance practices.
- 53. Operation of vehicular equipment; mowers, sweepers, loaders, snowmobiles, all-terrain, etc.
- 54. Landscape design and development.
- 55. Interpretive centers, wildlife areas, zoological gardens.

The resource management group was found to be associated with a relatively low competency need compared to other groups on 22 subject and ability items:

- 1. Recreation activities and program planning.
- 29. Human behavior and learning theory.
- 30. Group dynamics and social psychology.
- 31. Tournaments; planning and conducting
- 32. Aquatics; operation and management.
- 37. Crafts; nature, industrial, automotive, marine.
- 38. Dance; folk, social rhythmic, choreographed.
- 39. Dramatics; manipulative, creative, forensic, theater.
- 41. Sports; individual, team, group.
- 42. Music; vocal, instrumental.
- 44. Social activities; formal, informal.
- 45. Special events; exhibitions, festivals, musicals.
- 56. Medical terminology related to therapeutic services.
- 57. Treatment and custodial services; organization, operation.
- 58. Anatomy, physiology and kinesiology.
- 59. Psychology related to the atypical individual.
- 60. Prescriptive programming for persons with physical and emotional limitations.
- 61. Group therapy procedures and practices.
- 62. Guidance and counseling; individual and group.
- 63. Physical and neurological defects of individuals.
- 64. Drugs; identification of and effects on individuals.
- 65. Behavior factors associated with the ill and handicapped.

Competencies needed by entry level employees in recreation

On 10 of the subject and ability items, the recreation group was found to be associated with a relatively high competency need compared to other groups. These items were:

1. Recreation activities and program planning.
13. Personnel management; recruitment, selection, supervision.
24. Parliamentary procedures with organized groups.
29. Human behavior and learning theory.
30. Group dynamics and social psychology.
31. Tournaments; planning and conducting.
39. Dramatics; manipulative, creative, forensic, theater.
42. Music; vocal instrumental.
45. Special events; exhibitions, festivals, musicals.
50. Indoor special-purpose facility operation and management; indoor pools, arenas, youth centers, etc.

The recreation group was found to be associated with a relatively low competency need compared to other groups on 21 items:

3. Safety regulations and practices.
4. Equipment and supplies; control, use and maintenance.
21. Construction of buildings and facilities.
22. Maintenance; buildings, grounds and utilities.
25. Concessions; operation and management.
35. Impact studies (e.g. environmental impact).
43. Science; biological, physical, natural.
46. Mechanical machinery; operation and maintenance.
47. Trees, shrubs, flowers and plants; nurseries and gardens.
48. Camps and camping; day, residential, tourist.
51. Heating, refrigeration, plumbing and electrical equipment.
52. Janitorial services and grounds maintenance practices.
53. Operation of vehicular equipment; mowers, sweepers, loaders, snowmobiles, all-terrain, etc.
54. Landscape design and development.
55. Interpretive centers, wildlife areas, zoological gardens.
56. Medical terminology related to therapeutic services.
57. Treatment and custodial services; organization and operation.
58. Anatomy, physiology and kinesiology.
61. Group therapy procedures and practices.
63. Physical and neurological defects of individuals.

Competencies needed by entry level employees in parks and recreation

On 19 of the subject and ability items, the parks and recreation group was found to be associated with a relatively high level of competency need compared to other groups. The items were:

1. Recreation activities and program planning.
11. Accounting and business administration.
13. Personnel management; recruitment, selection, supervision.
14. Budgets; revenues, appropriations and expenditures.
21. Construction of buildings and facilities.
22. Maintenance; buildings, grounds and utilities.
24. Parliamentary procedures with organized groups.
25. Concessions; operation and management.
26. Contracts; agreements and leases.
31. Tournaments; planning and conducting.
32. Aquatics; operation and management.
34. Administration; practices and procedures.
35. Impact studies (e.g. environmental impact).
39. Dramatics; manipulative, creative, forensic, theater.
48. Camps and camping; day, residential, tourist.
49. Outdoor recreation facility management; golf courses, ice-skating rinks, swimming facilities, marinas, etc.
50. Indoor special-purpose facility management; indoor pools, arenas, youth centers, etc.
51. Heating, refrigeration, plumbing and electrical equipment.
55. Interpretive centers, wildlife areas, zoological gardens.

The parks and recreation group was found to be associated with a relatively low competency need compared to other groups on 13 items:

4. Equipment and supplies; control, use and maintenance.
29. Human behavior and learning theory.
30. Group dynamics and social psychology.
56. Medical terminology related to therapeutic services.
57. Treatment and custodial services; organization and operation.
58. Anatomy, physiology and kinesiology.
59. Psychology related to the atypical individual.
60. Prescriptive programming for persons with physical and emotional limitations.
62. Guidance and counseling; individual and group.
63. Physical and neurological defects on individuals.
64. Drugs; identification of and effects on individuals.
65. Behavior factors associated with the ill and handicapped.

Mean Scores of Competency Needs

The analysis of variance and chi square tests of independence were based upon relative competency need regarding the subjects and abilities specified. Although this information, in and of itself, is important to curriculum development decisions, it can be misleading unless the basis for the relativity of competency need is established. For example, on several occasions a group had a relatively low competency need compared to other groups and at the same time had a mean score indicating at least a moderate level of competency need.

Table 18 summarizes the level of competency need on the subjects and abilities by the agency orientation groups. Competency needs by entry level employees in therapeutic recreation at a moderate or high level included 32 of the total 35 subjects and abilities in the General subscale. Only three items received mean scores falling below 1.50.

These were:

- 10. Statistical analysis and computer utilization.
- 25. Concessions; operation and management.
- 26. Contracts, agreements and leases.

All subjects and abilities in the Programming subscale (items 36 - 45) demanded a moderate or high level of competency by therapeutic employees according to mean scores while six of the ten subjects and abilities in the Resource Management subscale (items 46 - 55) received mean scores below 1.50:

- 47. Trees, shrubs, flowers and plants; nurseries and gardens.
- 51. Heating, refrigeration, plumbing and electrical equipment.
- 52. Janitorial services and grounds maintenance practices.

Table 18. Level of competency need by agency functional orientation based on mean scores

Subjects and abilities	Agency orientation			
	Thera- peutic	Re- source	Rec- reation	Parks and Recreation
1. Recreation activities and program planning.	H ^a	M ^b	H	H
2. Leadership and motivation techniques.	H	H	H	H
3. Safety regulations and practices.	H	H	M	H
4. Equipment and supplies; control, use and maintenance.	H	H	M	M
5. Recreation facilities; use-planning and operation.	M	H	H	H
6. Acquisition of areas and facilities.	M	M	M	M
7. Analysis of supply/demand and cost/benefit.	M	M	M	M
8. Management; theories, policies and practices.	M	H	M	M
9. Surveys and research methods.	M	M	M	M
10. Statistical analysis and computer utilization.	L ^c	M	L	L
11. Accounting and business administration.	M	M	M	M
12. Audio-visual aids; preparation and use.	M	M	M	M

^aH = high = mean score of 2.50 and above.

^bM = moderate = mean score of 1.50 - 2.495.

^cL = little = mean score of 1.49 and below.

Table 18 (Continued)

Subjects and abilities	Agency orientation			
	Thera- peutic	Re- source	Rec- reation	Parks and Recreation
13. Personnel management; recruitment, selection, supervision.	M	H	H	H
14. Budgets; revenues, appropriations and expenditures.	M	M	M	H
15. Laws, legislative processes and governmental organization.	M	M	M	M
16. Evaluation and reporting; procedures and techniques.	H	H	H	H
17. Insurance; purposes and types.	M	M	L	M
18. Organizational theory and methods.	M	M	M	M
19. Public relations; procedures and methods.	H	H	H	H
20. Standards for facilities and programs.	M	H	M	M
21. Construction of buildings and facilities.	M	M	M	M
22. Maintenance; buildings, grounds and utilities.	M	H	M	M
23. Purchasing; specifications and procedures.	M	H	M	M
24. Parliamentary procedures with organized groups.	M	M	M	M
25. Concessions; operation and management.	L	M	L	M
26. Contracts, agreements and leases.	L	M	M	M

Table 18 (Continued)

Subjects and abilities	Agency orientation			
	Thera- peutic	Re- source	Rec- reation	Parks and Recreation
27. Leisure services; history, philosophy and meaning.	M	M	M	M
28. Community organizations; purposes, programs, relationships.	M	M	M	M
29. Human behavior and learning theory.	H	M	H	M
30. Group dynamics and social psychology.	H	M	H	M
31. Tournaments; planning and conducting.	M	L	M	M
32. Aquatics; operation and management.	M	M	M	M
33. Communications; written and oral.	H	H	H	H
34. Administration; practices and procedures.	M	M	M	H
35. Impact studies (e.g. environmental impact).	M	M	M	M
36. Art; graphic and plastic.	M	M	M	M
37. Crafts; nature, industrial, automotive, marine.	M	L	M	M
38. Dance; folk, social, rhythmic, choreographed.	M	L	M	M
39. Dramatics; manipulative, creative, forensic, theater.	M	L	M	M
40. Adult and continuing education; principles and practices.	M	L	M	M

Table 18 (Continued)

Subjects and abilities	Agency orientation			
	Thera- peutic	Re- source	Rec- reation	Parks and Recreation
41. Sports; individual, dual, team, group.	H	L	M	M
42. Music; vocal, instrumental.	M	L	M	M
43. Science; biological, physical, natural.	M	M	M	M
44. Social activities; formal, informal.	H	L	M	M
45. Special events; exhibitions, festivals, musicals.	H	L	H	M
46. Mechanical machinery; operation and maintenance.	M	H	M	M
47. Trees, shrubs, flowers and plants; nurseries and gardens.	L	H	L	M
48. Camps and camping; day, residential, tourist.	M	M	M	M
49. Outdoor recreation facility management; golf courses, ice- skating rinks, swimming facili- ties, marinas, etc.	M	M	M	M
50. Indoor special-purpose facility operation and manage- ment; indoor pools, arenas, youth centers, etc.	M	M	H	M
51. Heating, refrigeration, plumbing and electrical equipment.	L	M	L	M
52. Janitorial services and grounds maintenance practices.	L	M	L	M

Table 18 (Continued)

Subjects and abilities	Agency orientation			
	Thera- peutic	Re- source	Rec- reation	Parks and Recreation
53. Operation of vehicular equipment; mowers, sweepers, loaders, snowmobiles, all-terrain, etc.	L	M	L	M
54. Landscape design and development.	L	H	L	M
55. Interpretive centers, wild-life areas, zoological gardens.	L	M	L	M
56. Medical terminology related to therapeutic services.	H	L	L	L
57. Treatment and custodial services; organization, operation.	M	L	L	M
58. Anatomy, physiology and kinesiology.	M	L	L	L
59. Psychology related to the atypical individual.	H	L	M	L
60. Prescriptive programming for persons with physical and emotional limitations.	H	L	M	L
61. Group therapy procedures and practices.	M	L	L	L
62. Guidance and counseling; individual and group.	M	L	M	M
63. Physical and neurological defects of individuals.	M	L	M	M
64. Drugs; identification of and effects on individuals.	M	L	M	M
65. Behavior factors associated with the ill and handicapped.	H	L	M	M

- 53. Operation of vehicular equipment; mowers, sweepers, loaders, snowmobiles, all-terrain, etc.
- 54. Landscape design and development.
- 55. Interpretive centers, wildlife areas, zoological gardens.

All subjects and abilities included in the Therapeutic Recreation subscale (items 56 - 65) demanded a moderate or high level of competency by entry level employees in therapeutic recreation settings.

Only one of the General subscale items had a mean score falling below 1.50 for the resource management group:

- 31. Tournaments; planning and conducting.

However, eight of the ten items in the Programming subscale had mean scores less than 1.50:

- 37. Crafts; nature, industrial, automotive, marine.
- 38. Dance; folk, social rhythmic, choreographed.
- 39. Dramatics; manipulative, creative, forensic, theater.
- 40. Adult and continuing education; principles and practices.
- 41. Sports; individual dual, team group.
- 42. Music; vocal, instrumental.
- 44. Social activities; formal, informal.
- 45. Special events; exhibitions, festivals, musicals.

All subjects and abilities in the Resource Management subscale demanded a high competency for entry level employees in resource management while none of the subjects and abilities in the Therapeutic Recreation subscale demanded a moderate or high competency.

Three of the subjects and abilities of the General subscale had mean scores below 1.50 indicating little competency need by the recreation group:

- 10. Statistical analysis and computer utilization.
- 17. Insurance; purposes and types.
- 25. Concessions; operation and management.

All subjects and abilities included in the Programming subscale demanded a moderate or high competency by entry level employees in the recreation group. Six of the ten subjects and abilities included in the Resource Management subscale received mean scores below 1.50 indicating little competency need:

- 47. Trees, shrubs, flowers and plants; nurseries and gardens.
- 51. Heating, refrigeration, plumbing and electrical equipment.
- 52. Janitorial services and grounds maintenance practices.
- 53. Operation of vehicular equipment; mowers, sweepers, loaders, snowmobiles, all-terrain, etc.
- 54. Landscape design and development.
- 55. Interpretive centers, wildlife areas, zoological gardens.

Five of the ten subjects and abilities included in the Therapeutic Recreation subscale had mean scores below 1.50 indicating little competency need:

- 56. Medical terminology related to therapeutic services.
- 57. Treatment and custodial services; organization, operation.
- 58. Anatomy, physiology and kinesiology.
- 61. Group therapy procedures and practices.
- 63. Physical and neurological defects of individuals.

Only one of the subjects and abilities included in the General subscale had a mean score below 1.50 indicating a low competency need by entry level employees in "Parks and Recreation":

- 10. Statistical analysis and computer utilization.

All ten items in the Programming subscale demanded moderate or high competency. Likewise, all Resource Management subscale items demanded moderate or high competency by entry level parks and recreation employees. Six of the ten items included in the Therapeutic Recreation subscale had mean scores below 1.50 indicating little competency need for the group:

- 56. Medical terminology related to therapeutic services.

58. Anatomy, physiology and kinesiology.
59. Psychology related to the atypical individual.
60. Prescriptive programming for persons with physical and emotional limitations.
61. Group therapy procedures and practices.
63. Physical and neurological defects of individuals.

Conclusions

Based on this study, it was concluded that a significant difference exists in the types and levels of competency needed by entry level employees in different types of leisure services agencies. Generally, these differences relate to the specialized functions of the agency with regard to types of competency and to both general and specialized functions with regard to levels of competency.

Within the General subscale (items 1 - 35) only five of the subjects and abilities could be regarded as different as to the type of competency needed: 1) only the resource management employee needs a moderate or high level of competency in statistical analysis and computer utilization, 2) all but recreation employees need at least a moderate competency in the purposes and types of insurance, 3) only the resource management and park and recreation groups need at least a moderate competency in the operation and management of concessions, 4) only the therapeutic group does not need at least a moderate competency on the subject of contracts, agreements and leases, and 5) only the resource management group does not need at least a moderate competency in planning and conducting tournaments. In all other cases the difference among the groups on the general subscale items is one of degree of relative need within the moderate to high levels of competency need.

Within the Programming subscale (items 36 - 45), only the resource management employees do not need moderate or high competency on all subjects and abilities included. As a matter of fact, on only two of the ten subjects and abilities do these employees need competency: crafts, of various types and biological, physical and natural science. All other variation between groups on this subscale is attributable to levels within moderate to high need.

Within the Resource Management subscale (items 46 - 55), both resource management and parks and recreation entry level employees need competency on all subjects and abilities included. Employees in therapeutic recreation and general recreation jobs do not; however, need substantial competency in six areas: 1) trees, shrubs, flowers and plants; nurseries and gardens, 2) heating, refrigeration, plumbing and electrical equipment, 3) janitorial services and grounds maintenance practices, 4) operation of vehicular equipment; mowers, sweepers, loaders, snowmobiles, all-terrain, etc., 5) landscape design and development, and 6) interpretive centers, wildlife areas and zoological gardens. Other differences in competency need regarding these subjects and abilities are attributable to levels rather than types.

Within the Therapeutic Recreation subscale (items 56 - 65), only entry level employees involved in therapeutic recreation services need moderate or high competency on all subjects and abilities. At the same time, little or no competency is needed by entry level resource management employees on these subjects and abilities. Employees wishing to enter jobs in general recreation services need little or no competency

in the areas: 1) medical terminology related to therapeutic recreation services, 2) organization and operation of treatment and custodial services, 3) anatomy, physiology and kinesiology, 4) group therapy procedures and practices, and 5) physical and neurological defects of individuals. Competency is needed by the entering recreation services employee relating to the remaining five subjects and abilities in the therapeutic subscale. Persons seeking entry into combined departments of parks and recreation need little competency in: 1) medical terminology related to therapeutic services, 2) anatomy, physiology and kinesiology, 3) psychology related to the atypical individual, 4) prescriptive programming for persons with physical and emotional limitations, 5) group therapy procedures and practices, and 6) physical and neurological defects of individuals. A level of moderate competency is needed relating to the other four subjects and abilities included in this subscale by parks and recreation employees.

Additional Conclusions

When the results of this study are applied to the positions taken and questions asked by the various persons reported in Chapter I, several conclusions can be stated. First, these findings partially support the position taken by the Society of Park and Recreation Educators (16) regarding the need for general orientation to the profession at the undergraduate level. However, a substantial amount of specialization is also needed on the undergraduate level if persons are to be adequately prepared to enter the profession in particularly the therapeutic and resource

management areas. The least relative amount of specialized training is needed by persons entering general recreation agencies. Persons entering agencies where there is a combined parks and recreation function have a general need of specialized training in resource management in recreation programming and, to some degree, in therapeutic recreation operations.

Second, Twardzik (4) contended that practitioners need to be prepared to perform public leadership roles in the allocation of resources and that fact finding, skill producing preparation is not sufficient. This study supports Twardzik's contention with regard to the resource management function. Those in the resource management settings were found not to need substantial levels of active recreation programming skills (e.g. setting up tournaments, etc.), but did need competency in planning, operation and management of facilities and resources. It was interesting to note that only the resource management group saw a need for statistical analysis and computer utilization; a factor, no doubt, relating to the allocation and use of areas and facilities.

Third, the Therapeutic Recreation Association has contended, and the Accreditation Project (1) supported the contention, that persons entering therapeutic recreation settings need specialization in training beyond the baccalaureate degree. This study did not deny that further specialization is needed beyond the undergraduate level. It did, however, suggest that persons in therapeutic services need specialized training in the therapeutic area in addition to extensive competency in

recreation programming knowledge and abilities. There were strong indications that entry level employees in therapeutic services need a lower competency in the planning, operation and management of facilities and resources. The need for graduate training for this group, therefore, may be a result of the traditional organization of curriculum in leisure services, whereby upper level courses have tended to concentrate on operation and administration of programs after the program oriented courses are taught at lower levels. There are indications that those preparing for entry into therapeutic services could acquire specialization in therapeutic recreation in lieu of courses in facility and resource management at the undergraduate level if the curriculum were to provide such an option.

Fourth, Shivers (4) and Niepoth (6) asked the question regarding what level entry into the field should occur; leadership, supervisory, administrative or at all three, and whether the level is the same for therapeutic services, resource management and general recreation. This study found that persons at the entry level in departments providing general recreation services need heavy emphasis on competencies in recreation activity programming in addition to competencies needed by all groups. Entry level persons in therapeutic services need the competency specified for the general recreation person and, in addition, special preparation in the area of therapeutic services. Those entering resource management oriented departments need competency in operation and management of facilities and resources but

little preparation in recreation programming or therapeutic services. Persons entering combined park and recreation departments need competency in general recreation programming, resource management, and, to a large extent, in therapeutic service areas. Thus, it is clear that entry into combined parks and recreation departments requires general competency over all the other three specialized areas.

Program Development

The development of relevant preparation curricula in leisure services is a demonstrated goal of many persons in this field. This study was designed to supply information which would assist in that quest. The following guide is representative of the findings of this study and is divided into five areas: 1) core competencies needed by all entry level employees, 2) specific competencies needed by entry level employees in therapeutic recreation services, 3) specific competencies needed by entry level employees in resource management services, 4) specific competencies needed by entry level employees in general recreation services, and 5) specific competencies needed by entry level employees in combined parks and recreation services.

Core

- Recreation activities and program planning.
- Leadership and motivation techniques.
- Safety regulations and practices.
- Equipment and supplies; control, use and maintenance.
- Recreation facilities; use-planning and operation.
- Acquisitions of areas and facilities.
- Analysis of supply/demand and cost/benefit.
- Management; theories, policies and practices.

Surveys and research methods.
 Accounting and business administration.
 Audio-visual aids; preparation and use.
 Personnel management; recruitment, selection, supervision.
 Budgets; revenues, appropriations and expenditures.
 Laws, legislative processes and governmental organization.
 Evaluation and reporting; procedures and techniques.
 Organizational theory and methods.
 Public relations; procedures and methods.
 Standards for facilities and programs.
 Construction of buildings and facilities.
 Maintenance; buildings, grounds and utilities.
 Purchasing; specifications and procedures.
 Parliamentary procedures with organized groups.
 Leisure services; history, philosophy and meaning.
 Community organizations; purposes, programs relationships.
 Human behavior and learning theory.
 Group dynamics and social psychology.
 Aquatics, operation and management.
 Communications; written and oral.
 Administration; practices and procedures.
 Impact studies (e.g. environmental impact).
 Art; graphic and plastic.
 Science; biological, physical, natural.
 Mechanical machinery; operation and maintenance.
 Camps and camping; day, residential, tourist.
 Outdoor recreation facility management; golf courses, ice-skating
 rinks, swimming facilities, marinas, etc.
 Indoor special-purpose facility operation and management; indoor
 pools, arenas, youth centers, etc.

Therapeutic recreation

Insurance; purposes and types.
 Tournaments; planning and conducting.
 Crafts; nature, industrial, automotive, marine.
 Dance; folk, social, rhythmic, choreographed.
 Dramatics; manipulative, creative, forensic, theater.
 Adult and continuing education; principles and practices.
 Sports; individual, dual, team group.
 Music; vocal, instrumental.
 Social activities; formal, informal.
 Special events; exhibitions, festivals, musicals.
 Trees, shrubs, flowers and plants; nurseries and gardens.
 Medical terminology related to therapeutic services.
 Treatment and custodial services; organization operation.
 Anatomy, physiology and kinesiology.
 Psychology related to the atypical individual.

Prescriptive programming for persons with physical and emotional limitations.

Group therapy procedures and practices.

Guidance and counseling; individual and group.

Physical and neurological defects of individuals.

Drugs; identification of and effects on individuals.

Behavior factors associated with the ill and handicapped.

Resource management

Statistical analysis and computer utilization.

Insurance; purposes and types.

Concessions; operation and management.

Contracts, agreements and leases.

Art; graphic and plastic.

Science; biological, physical, natural.

Trees, shrubs, flowers and plants; nurseries and gardens.

Heating, refrigeration, plumbing and electrical equipment.

Janitorial services and grounds maintenance practices.

Operation of vehicular equipment; mowers, sweepers, loaders, snow-mobiles, all-terrain, etc.

Landscape design and development.

Interpretive centers, wildlife areas, zoological gardens.

General recreation

Contracts, agreements and leases.

Tournaments; planning and conducting.

Crafts; nature, industrial, automotive, marine.

Dance; folk, social, rhythmic, choreographed.

Dramatics; manipulative, creative, forensic, theater.

Adult and continuing education; principles and practices.

Sports; individual, dual, team, group.

Music; vocal, instrumental.

Social activities; formal, informal.

Special events; exhibitions, festivals, musicals.

Prescriptive programming for persons with physical and emotional limitations.

Guidance and counseling; individual and group.

Drugs; identification of and effects on individuals.

Behavior factors associated with the ill and handicapped.

Parks and recreation

Insurance; purposes and types.

Concessions; operation and management.

Contracts, agreements and leases.

Tournaments; planning and conducting.
 Crafts; nature, industrial, automotive marine.
 Dance; folk social, rhythmic, choreographed.
 Dramatics; manipulative, creative, forensic, theater.
 Adult and continuing education; principles and practices.
 Sports; individual, dual, team group.
 Music; vocal, instrumental.
 Social activities; formal, informal.
 Special events; exhibitions, festivals, musicals.
 Trees, shrubs, flowers and plants; nurseries and gardens.
 Heating, refrigeration, plumbing and electrical equipment.
 Janitorial services and grounds maintenance practices.
 Operation of vehicular equipment; mowers, sweepers, loaders, snow-
 mobiles, all-terrain, etc.
 Landscape design and development.
 Interpretive centers, wildlife areas, zoological gardens.
 Treatment and custodial services; organization, operation.
 Guidance and counseling; individual and group.
 Drugs; identification of and effects on individuals.
 Behavior factors associated with the ill and handicapped.

Suggestions for Further Research

This study was based on responses given within one time frame to a limited number of items. Changes are constantly occurring which have the effect of altering the types and levels of expectations placed on employees and their roles. Continuing research is needed in the subject area of this study in order to discover, and perhaps, predict future needs of professional personnel. Additionally, further analysis of information such as that contained in Appendix E will materially assist in the counseling of students preparing for employment.

Due to resource limitations, the scope of this study was narrow. Further research should expand upon the subjects and abilities requiring the attention of curriculum planners. At the same time, other groups who perform leisure services should be studied (armed forces, voluntary agencies, commercial employees, etc.) in order to assess their preparation needs.

CHAPTER V. SUMMARY

This study was designed to answer two specific questions: 1) What, in the judgment of those actively engaged in providing leisure services, are the competencies needed by entry level employees, and 2) Are there significant differences in these judgments of practitioners engaged in the different areas (therapeutic recreation, resource management, general recreation programming and parks and recreation operations) as to the competencies needed by entry level employees.

Data for purposes of analysis was collected from a sample of 180 persons by a mailed questionnaire. The responses of 123 persons engaged in providing leisure services in the State of Iowa were analyzed.

The questionnaire instrument was designed to gather personal and agency information relating to the respondent and judgments of entry level competency need. Agency functional orientation served as the independent variable for statistical analysis. Judgments regarding entry level competency need to 65 selected items served as dependent variables. The 65 questionnaire items were derived in four subscales (General, Programming, Resource Management and Therapeutic Recreation) which were found reliable measures (.89 and above).

Analysis of variance and multiple comparisons were computed on the total scale and each of the four subscales. Chi square tests of independence were computed on each of the questionnaire items by agency functional orientation. On 47 items, the null hypothesis of independence was rejected indicating a relationship between relative competency need

and agency orientation. Mean score values were analyzed in order to further interpret the chi square values.

Conclusions were reached on the basis of the findings of this study that differences in both types and levels of general and specific competencies exist for entry level persons in various leisure services agencies. These findings were, additionally, discussed in relation to questions asked and positions taken by various persons and groups in the field.

Based on this study, suggestions for program development were stated in terms of general and specific competencies needed by entry level employees in four types of leisure services agencies.

Entry level employees in general recreation settings were found to need heavy emphasis on competencies related to recreation activity programming in addition to those needed by all persons in leisure services. Those in therapeutic settings were found to need these competencies and, in addition, thorough preparation in therapeutic services. Resource management personnel; however, showed need for general competencies and strong preparation in resource related areas. Employees entering combined park and recreation departments were found to need, generally, the competencies required of all the other groups combined.

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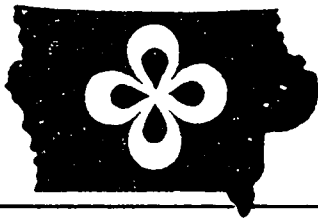
ACKNOWLEDGMENTS

Many have contributed directly and indirectly to this study, each in a special and meaningful way. But, above all others, my partner; Mina Jo and our children; Winston, Dawn and Chandra have made the greatest sacrifices as a result of my absence from them for over two years. The efforts of my wife's parents: Howard and Blanche Plott, materially assisted in making this work possible and we are much indebted to them.

Without exception, the professors and colleagues with whom I have associated at Iowa State University affected the content and process of this investigation. Dr. Virginia Frye was both logistically and psychologically supportive to these efforts. Members of the Iowa Park and Recreation Association; particularly President Leonard Kataski, played essential roles. And, members of my committee each shared special insights according to my availability to their expertise: (1) Dr. "Tony" Netusil not only insisted that I learn some statistics, he caused such activity to be actually enjoyable, (2) Dr. Milton Brown provided assistance generally and specifically at all stages of this work, (3) Dr. Fredrick Brown provided freely of his time and his special "knack" for preciseness, (4) Dr. George Kiser served a key role in giving his advice in and out of class, (5) Dr. James Reid was most helpful as both a "sounding board" and resource, and (6) Dr. Ray Bryan served in the essential capacity of expediting and monitoring the whole process by which one approaches this stage.

A measure of the effectiveness of a university is its positive contributions to the values and attitudes of students toward a life of learning. It is my belief that the faculty of Iowa State University are, hereby, acknowledged for their several efforts in my behalf.

APPENDIX A: COVER LETTERS FOR ORIGINAL QUESTIONNAIRE MAILING

IOWA
PARKS & RECREATION ASSOCIATION

TO: IPRA PROFESSIONAL PRACTITIONERS

FROM: LEONARD J. KATOSKI, PRESIDENT, IPRA

SUBJECT: ENCLOSED QUESTIONNAIRE PREPARED BY
IOWA STATE UNIVERSITY

DATE: MAY 15, 1973

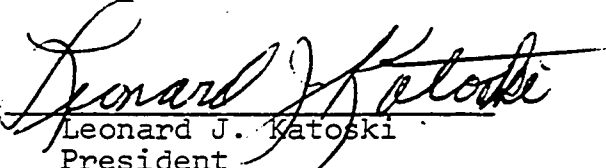
It has become of mutual concern to the Iowa Park and Recreation Association and the University Departments dealing with Recreation and Park Administration Education Programs that the curriculum offered be as relevant as possible.

In recent months, there has been a more unified effort concerning the matter of curriculum review and revision by the Universities and IPRA professionals. Progress has been made but more needs to be done to improve the educational process so that it will be more meaningful to the student and profession in general.

You, as a professional practitioner, can assist in this effort by your individual interest and support. You can begin now by filling out the enclosed questionnaire prepared by Iowa State University. The questionnaire is a part of a study concerned with the level of knowledge and skill competency needed by entry-level persons in recreation and park services.

I strongly urge you to take a few minutes to fill out and return the enclosed questionnaire immediately.

Your input will be important to the study.


Leonard J. Katoski
President
Iowa Park & Recreation Assn.

LJK:bf

IOWA STATE UNIVERSITY

of Science and Technology



AMES, IOWA 50010

Department of Physical Education For Men

May 14, 1973

Dear I.P.R.A. Member;

The attached questionnaire is concerned with the level of knowledge and skill competency needed by entry-level persons for job success in recreation and park (leisure) services. It is the basis of a study being conducted at Iowa State University. This study should provide practitioner input which will be valuable for curriculum development decisions in the colleges and universities in Iowa. We are specifically concerned with the knowledge and skill levels judged appropriate by professional practitioners and board members of recreation and park agencies. Your responses are needed toward providing this important information.

It will be appreciated if you will complete the questionnaire prior to May 23rd and return it in the addressed, stamped envelope enclosed. Other phases of this research cannot be carried out until we complete analysis of the questionnaire data. The average time for completion is 20 minutes.

We welcome any comments that you may have concerning any aspect of curriculum not covered by this questionnaire. Space is provided for additional items you may consider of importance.

We will be pleased to send a summary of questionnaire results if you desire. Thank you for your cooperation.

Sincerely,

*Denver F. Bennett*Denver F. Bennett
Leisure Services

APPENDIX B: QUESTIONNAIRE

83
ENTRY-LEVEL COMPETENCY SURVEY

No. _____

CONFIDENTIAL: All information supplied on this questionnaire will be held in strictest confidence and will be reported only in a form which will maintain the confidentiality of responses.

Personal and Agency Profile:

1. What is your age? _____ years
2. What is your primary level of responsibility in the Recreation and/or Park related agency? (Check one)
Board member _____
Administrative _____
Supervisory _____
Leadership _____
3. How many years have you been associated with this agency?
_____ years
4. What is the highest level of formal education you have attained?
Grade 8 or less _____
High School _____
2 years college _____
Completion of B.A. _____
Graduate Degree _____
Other (Specify) _____
5. Do you hold a degree from college with a major in Recreation, Parks, or Resource management? Yes _____ No _____
6. Which of the following best describes the major functional emphasis of your agency?
Therapeutic recreation services _____
Resource Management (eg. Parks only) _____
Recreation Services (eg. Rec. only) _____
Recreation and Park services _____
7. How many staff work full-time in your department? _____
8. Please identify the position in your agency which meets all the criteria listed below. This may be the job you hold or one held by a staff member. Once you have identified the position, please write the base annual salary in the space provided.
CRITERIA: (1) Full-time employee.
(2) Engaged in providing recreation or park service.
(3) Job description requires some college (or equivalent experience).
(4) Is the lowest paid employee who meets the first three criteria.
Base Annual Salary of the Entry-level employee \$ _____

INSTRUCTIONS: On item 8 of the previous page you have identified an employee's position in your agency. Please write the title of that position in the space below and respond to each of the competency indicators according to the scale provided. For each item rate the level of competence you consider a minimum for success by an employee in that specific job.

RESPOND: **IF JOB SUCCESS REQUIRES:**

- (4) A mastery of the knowledge and skills associated with the indicated subject or ability. (Superior levels of competency.)
- (3) A high level of competency in the knowledge and skills associated with the indicated subject or ability.
- (2) A moderate level of competency in the knowledge and skills associated with the subject or ability.
- (1) A knowledge about the subject or ability. (Job requires little competency)
- (0) This subject or ability is not applicable to the specific job.

Title of position you have identified; _____

RESPONSE: **SUBJECTS AND ABILITIES:**

- _____ 1. Recreation activities and program planning.
- _____ 2. Leadership and motivation techniques.
- _____ 3. Safety regulations and practices.
- _____ 4. Equipment and supplies; control, use and maintenance.
- _____ 5. Recreation facilities; use-planning and operation.
- _____ 6. Acquisition of areas and facilities.
- _____ 7. Analysis of supply/demand and cost/benefit.
- _____ 8. Management; theories, policies and practices.
- _____ 9. Surveys and research methods.
- _____ 10. Statistical analysis and computer utilization.

- 85
- _____11. Accounting and business administration.
 - _____12. Audio-visual aids; preparation and use.
 - _____13. Personnel management; recruitment, selection, supervision.
 - _____14. Budgets; revenues, appropriations and expenditures.
 - _____15. Laws, legislative processes and governmental organization.
 - _____16. Evaluation and reporting; procedures and techniques.
 - _____17. Insurance; purposes and types.
 - _____18. Organizational theory and methods.
 - _____19. Public relations; procedures and methods.
 - _____20. Standards for facilities and programs.
 - _____21. Construction of buildings and facilities.
 - _____22. Maintenance; buildings, grounds and utilities.
 - _____23. Purchasing; specifications and procedures.
 - _____24. Parliamentary procedures with organized groups.
 - _____25. Concessions; operation and management.
 - _____26. Contracts, agreements and leases.
 - _____27. Leisure services; history, philosophy and meaning.
 - _____28. Community organizations; purposes, programs, relationships.
 - _____29. Human behavior and learning theory.
 - _____30. Group dynamics and social psychology.
 - _____31. Tournaments; planning and conducting.
 - _____32. Aquatics; operation and management.
 - _____33. Communications; written and oral.
 - _____34. Administration; practices and procedures.
 - _____35. Impact studies (eg. environmental impact).
 - _____36. Art; graphic and plastic.
 - _____37. Crafts; nature, industrial, automotive, marine.
 - _____38. Dance; folk, social, rhythmic, choreographed.

- _____39. Dramatics; manipulative, creative, forensic, theater.
- _____40. Adult and continuing education; principles and practices.
- _____41. Sports; individual, dual, team, group.
- _____42. Music; vocal, instrumental.
- _____43. Science; biological, physical, natural.
- _____44. Social activities; formal, informal.
- _____45. Special events; exhibitions, festivals, musicals.
- _____46. Mechanical machinery; operation and maintenance.
- _____47. Trees, shrubs, flowers and plants; nurseries and gardens.
- _____48. Camps and camping; day, residential, tourist.
- _____49. Outdoor recreation facility management; golf courses, ice-skating rinks, swimming facilities, marinas, etc.
- _____50. Indoor special-purpose facility operation and management; indoor pools, arenas, youth centers, etc.
- _____51. Heating, refrigeration, plumbing and electrical equipment.
- _____52. Janitorial services and grounds maintenance practices.
- _____53. Operation of vehicular equipment; mowers, sweepers, loaders, snowmobiles, all-terrain, etc.
- _____54. Landscape design and development.
- _____55. Interpretive centers, wildlife areas, zoological gardens.
- _____56. Medical terminology related to therapeutic services.
- _____57. Treatment and custodial services; organization, operation.
- _____58. Anatomy, physiology and kinesiology.
- _____59. Psychology related to the atypical individual.
- _____60. Prescriptive programming for persons with physical and emotional limitations.
- _____61. Group therapy procedures and practices.
- _____62. Guidance and counseling; individual and group.
- _____63. Physical and neurological defects of individuals.
- _____64. Drugs; identification of and effects on individuals.
- _____65. Behavior factors associated with the ill and handicapped.

IN THE SPACES BELCW PLEASE ADD ADDITIONAL SUBJECTS AND ABILITIES
YOU CONSIDER IMPORTANT FOR JOB SUCCESS AND THE LEVEL OF COMPETENCY
THE EMPLOYEE SHOULD POSSESS.

_____ 66.

_____ 67.

_____ 68.

_____ 69.

_____ 70.

If you would like a summary of questionnaire results, please mark
yes in the space below.

Yes _____

No _____

APPENDIX C: FOLLOW-UP LETTER FOR ORIGINAL QUESTIONNAIRE MAILING

IOWA STATE UNIVERSITY

of Science and Technology

AMES, IOWA 50010

Department of Physical Education For Men

June 5, 1973

Dear I.P.R.A. Member;

You recently received a questionnaire with a letter requesting your participation in a study relating to entry-level competencies needed by recreation and park personnel. This is a study being conducted at Iowa State University.

According to our records we have not yet received your response. If you have responded and we have not yet recorded the receipt of your questionnaire, thank you for your help. If you have not responded, we would be most appreciative if you would do so as soon as possible.

I realize that this is a most busy time of the year for those persons who are involved in providing programs and facilities in parks and recreation. I believe, however, that the results from this study will be helpful in the decisions we need to make with regard to preparation of persons for professional practice in our field. I trust that the few minutes you spend or have spent will be worthwhile in this respect.

Thank you for your cooperation in this project.

Sincerely,

Denver F. Bennett
Leisure Services

APPENDIX D: COVER LETTER FOR SECOND QUESTIONNAIRE

IOWA STATE UNIVERSITY

of Science and Technology



AMES, IOWA 50010

Department of Physical Education For Men

June 18, 1973

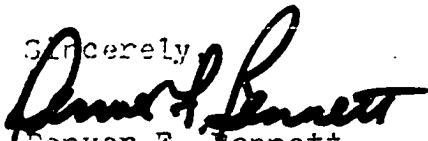
Dear I.P.R.A. Member;

Many of the members of I.P.R.A. have already responded to the questionnaire which is enclosed. As stated in the original letter, this questionnaire is a part of a study being conducted at Iowa State University.

I realize that this is a particularly hectic time of year for most departments providing park and recreation services and that often questionnaires and other such outside requests must receive lower priority than local problems. It is also easy to misplace such materials at this busy time. I am sending another questionnaire to you with the hope that you will be able to take the time to respond to it in the next few days. If you have already sent the original questionnaire, please disregard this letter.

Thank you very much for this cooperation. A summary of the responses will be sent after all questionnaires have been tabulated.

Sincerely,


Denver F. Bennett
Leisure Services

APPENDIX E: ADDITIONAL TABLES

Table 19. Need for entry level competency on subjects and abilities by agency functional orientation

Item number	Agency orientation	Competency need			Total	Mean scores
		Little	Moderate	High		
1	Therapeutic	1	5	32	38	2.81
	Resource	6	4	3	13	1.76
	Recreation	0	4	22	26	2.84
	Pks & Rec	3	8	28	39	2.64
	Total	10	21	85	116	2.64
	Chi square = 32.56044** (d.f. = 6) Significance = .0001 Missing = 7					
2	Therapeutic	0	4	34	38	2.84
	Resource	1	3	10	14	2.64
	Recreation	0	3	23	26	2.88
	Pks & Rec	0	8	35	43	2.81
	Total	1	18	102	121	2.83
	Chi square = 9.61905 (d.f. = 6) Significance = .1416 Missing = 2					
3	Therapeutic	3	3	30	36	2.75
	Resource	0	3	12	15	2.80
	Recreation	1	12	13	26	2.46
	Pks & Rec	4	10	28	42	2.57
	Total	8	28	83	119	2.63
	Chi square = 13.91709* (d.f. = 6) Significance = .0306 Missing = 4					
4	Therapeutic	1	15	20	36	2.52
	Resource	0	0	14	14	3.00
	Recreation	0	15	11	26	2.42
	Pks & Rec	2	19	22	43	2.46
	Total	3	49	67	119	2.53
	Chi square = 15.2333* (d.f. = 6) Significance = .0185 Missing = 4					
5	Therapeutic	5	9	23	37	2.48
	Resource	1	2	10	13	2.69
	Recreation	2	6	18	26	2.61
	Pks & Rec	1	15	24	40	2.57
	Total	9	32	75	116	2.56
	Chi square = 6.02277 (d.f. = 6) Significance = .4206 Missing = 7					

*Significant at the $P \leq .05$ level.**Significant at the $P \leq .001$ level.

Table 19 (Continued)

Item number	Agency orientation	Competency need			Total	Mean scores
		Little	Moderate	High		
6	Therapeutic	9	10	16	35	2.20
	Resource	5	1	7	13	2.15
	Recreation	14	6	5	25	1.64
	Pks & Rec	12	10	15	37	2.08
	Total	40	27	43	110	2.02
	Chi square = 9.21430 (d.f. = 6) Significance = .1619 Missing = 13					
7	Therapeutic	17	6	13	36	1.88
	Resource	5	0	9	14	2.28
	Recreation	10	9	7	26	1.88
	Pks & Rec	10	11	17	38	2.18
	Total	42	26	46	114	2.03
	Chi square = 11.71591 (d.f. = 6) Significance = .0686 Missing = 9					
8	Therapeutic	10	10	16	36	2.16
	Resource	1	3	11	15	2.66
	Recreation	4	9	12	25	2.32
	Pks & Rec	6	10	23	39	2.43
	Total	21	32	62	115	2.35
	Chi square = 6.12923 (d.f. = 6) Significance = .4089 Missing = 8					
9	Therapeutic	22	7	7	36	1.58
	Resource	4	3	6	13	2.15
	Recreation	9	12	4	25	1.80
	Pks & Rec	13	17	6	36	1.80
	Total	48	39	23	110	1.77
	Chi square = 14.09138* (d.f. = 6) Significance = .0286 Missing = 13					
10	Therapeutic	26	7	3	36	1.36
	Resource	9	0	4	13	1.61
	Recreation	17	6	2	25	1.40
	Pks & Rec	26	6	3	35	1.34
	Total	78	19	12	109	1.39
	Chi square = 8.30232 (d.f. = 6) Significance = .2168 Missing = 14					

Table 19 (Continued)

Item number	Agency orientation	Competency need			Total	Mean scores
		Little	Moderate	High		
11	Therapeutic	23	6	7	36	1.55
	Resource	4	3	6	13	2.15
	Recreation	8	14	3	25	1.80
	Pks & Rec	8	11	18	37	2.27
	Total	43	34	34	111	1.91
	Chi square = 26.22725** (d.f. = 6) Significance = .0002 Missing = 12					
12	Therapeutic	5	16	16	37	2.29
	Resource	3	6	4	13	2.07
	Recreation	5	14	6	25	2.04
	Pks & Rec	10	15	11	36	2.02
	Total	23	51	37	111	2.12
	Chi square = 4.43872 (d.f. = 6) Significance = .6175 Missing = 12					
13	Therapeutic	13	6	18	37	2.13
	Resource	1	4	8	13	2.53
	Recreation	2	5	19	26	2.65
	Pks & Rec	2	9	29	40	2.67
	Total	18	24	74	116	2.48
	Chi square = 16.82063* (d.f. = 6) Significance = .0100 Missing = 7					
14	Therapeutic	15	8	13	36	1.94
	Resource	2	5	7	14	2.35
	Recreation	5	9	7	14	2.24
	Pks & Rec	2	12	26	40	2.60
	Total	24	34	57	115	2.28
	Chi square = 17.17012* (d.f. = 6) Significance = .0087 Missing = 8					
15	Therapeutic	20	8	8	36	1.66
	Resource	5	4	5	14	2.00
	Recreation	14	8	3	25	1.56
	Pks & Rec	10	11	15	36	2.13
	Total	49	31	31	111	1.83
	Chi square = 10.35459 (d.f. = 6) Significance = .1105 Missing = 12					

Table 19 (Continued)

Item number	Agency orientation	Competency need			Total	Mean scores
		Little	Moderate	High		
16	Therapeutic	1	7	27	36	2.75
	Resource	1	3	10	14	2.64
	Recreation	3	7	10	26	2.50
	Pks & Rec	1	12	27	40	2.65
	Total	6	29	81	118	2.64
	Chi square = 4.66583 (d.f. = 6) Significance = .5873 Missing = 7					
17	Therapeutic	20	10	6	36	1.61
	Resource	5	6	1	12	1.66
	Recreation	16	6	3	25	1.48
	Pks & Rec	10	17	10	37	2.00
	Total	57	39	20	110	1.71
	Chi square = 11.56576 (d.f. = 6) Significance = .0724 Missing = 13					
18	Therapeutic	7	10	20	37	2.35
	Resource	3	4	6	13	2.23
	Recreation	5	8	13	26	2.30
	Pks & Rec	5	11	22	38	2.44
	Total	20	33	61	114	2.35
	Chi square = 1.14734 (d.f. = 6) Significance = .9794 Missing = 9					
19	Therapeutic	2	12	22	36	2.55
	Resource	1	2	12	15	2.73
	Recreation	1	2	23	26	2.84
	Pks & Rec	1	6	36	43	2.81
	Total	5	22	93	120	2.73
	Chi square = 9.30395 (d.f. = 6) Significance = .1572 Missing = 3					
20	Therapeutic	5	12	20	37	2.40
	Resource	1	2	11	14	2.71
	Recreation	4	7	15	26	2.42
	Pks & Rec	3	16	20	39	2.43
	Total	13	37	66	116	2.45
	Chi square = 5.22949 (d.f. = 6) Significance = .5147 Missing = 7					

Table 19 (Continued)

Item number	Agency orientation	Competency need			Total	Mean scores
		Little	Moderate	High		
21	Therapeutic	20	8	8	36	1.66
	Resource	2	4	6	12	2.33
	Recreation	14	7	4	25	1.60
	Pks & Rec	10	12	18	40	2.20
	Total	46	31	36	113	1.91
	Chi square = 14.55235* (d.f. = 6) Significance = .0240 Missing = 10					
22	Therapeutic	18	13	5	36	1.63
	Resource	0	2	12	14	2.85
	Recreation	13	8	4	25	1.64
	Pks & Rec	8	15	19	42	2.26
	Total	39	38	40	117	2.00
	Chi square = 33.69153** (d.f. = 6) Significance = .0001 Missing = 6					
23	Therapeutic	8	12	16	36	2.22
	Resource	1	5	8	14	2.50
	Recreation	8	8	9	25	2.04
	Pks & Rec	6	15	20	41	2.34
	Total	23	40	53	116	2.25
	Chi square = 4.79696 (d.f. = 6) Significance = .5701 Missing = 7					
24	Therapeutic	21	9	6	36	1.58
	Resource	5	7	2	14	1.78
	Recreation	8	10	7	25	1.96
	Pks & Rec	6	18	11	35	2.14
	Total	40	44	26	110	1.87
	Chi square = 14.34288* (d.f. = 6) Significance = .0260 Missing = 13					
25	Therapeutic	28	6	2	36	1.27
	Resource	3	7	3	13	2.00
	Recreation	15	9	1	25	1.44
	Pks & Rec	12	16	8	36	1.88
	Total	58	38	14	110	1.60
	Chi square = 21.63535** (d.f. = 6) Significance = .0014 Missing = 13					

Table 19 (Continued)

Item number	Agency orientation	Competency need			Total	Mean scores
		Little	Moderate	High		
26	Therapeutic	28	6	2	36	1.27
	Resource	4	6	4	14	2.14
	Recreation	13	7	5	25	1.68
	Pks & Rec	11	10	16	37	2.13
	Total	56	27	29	112	1.75
	Chi square = 23.07582** (d.f. = 6) Significance = .0008 Missing = 11					
27	Therapeutic	6	9	21	36	2.41
	Resource	3	6	4	13	2.07
	Recreation	6	10	10	26	2.15
	Pks & Rec	5	18	13	36	2.22
	Total	20	43	48	111	2.25
	Chi square = 6.97311 (d.f. = 6) Significance = .3233 Missing = 12					
28	Therapeutic	6	11	20	37	2.37
	Resource	3	6	6	15	2.20
	Recreation	2	10	14	26	2.46
	Pks & Rec	3	14	20	37	2.45
	Total	14	41	60	115	2.40
	Chi square = 3.22349 (d.f. = 6) Significance = .7803 Missing = 8					
29	Therapeutic	0	7	31	38	2.81
	Resource	3	4	7	14	2.28
	Recreation	1	9	16	26	2.57
	Pks & Rec	3	18	15	36	2.33
	Total	7	38	69	114	2.54
	Chi square = 18.96916* (d.f. = 6) Significance = .0042 Missing = 9					
30	Therapeutic	1	7	30	38	2.76
	Resource	5	5	3	13	1.84
	Recreation	1	11	14	26	2.50
	Pks & Rec	7	20	9	36	2.05
	Total	14	43	56	113	2.37
	Chi square = 32.84204** (d.f. = 6) Significance = .0001 Missing = 10					

Table 19 (Continued)

Item number	Agency orientation	Competency need			Total	Mean scores
		Little	Moderate	High		
31	Therapeutic	6	10	21	37	2.40
	Resource	9	2	1	12	1.33
	Recreation	5	4	17	26	2.46
	Pks & Rec	6	9	24	39	2.46
	Total	26	25	63	114	2.32
	Chi square = 22.80396** (d.f. = 6) Significance = .0009 Missing = 9					
32	Therapeutic	15	15	6	36	1.75
	Resource	7	4	1	12	1.50
	Recreation	13	5	8	26	1.80
	Pks & Rec	9	11	16	36	2.19
	Total	44	35	31	110	1.88
	Chi square = 12.93868* (d.f. = 6) Significance = .0440 Missing = 13					
33	Therapeutic	2	11	23	36	2.58
	Resource	2	2	10	14	2.57
	Recreation	2	4	20	26	2.69
	Pks & Rec	0	9	30	39	2.76
	Total	6	26	83	115	2.66
	Chi square = 7.13959 (d.f. = 6) Significance = .3081 Missing = 8					
34	Therapeutic	12	11	13	36	2.02
	Resource	2	3	8	13	2.46
	Recreation	3	7	15	25	2.48
	Pks & Rec	1	11	25	37	2.38
	Total	18	32	61	111	2.38
	Chi square = 14.76905* (d.f. = 6) Significance = .0221 Missing = 12					
35	Therapeutic	22	10	4	36	1.50
	Resource	4	4	6	14	2.14
	Recreation	13	9	4	26	1.65
	Pks & Rec	10	13	12	35	2.05
	Total	49	36	26	111	1.79
	Chi square = 5.13470 (d.f. = 6) Significance = .5267 Missing = 12					

Table 19 (Continued)

Item number	Agency orientation	Competency need			Total	Mean scores
		Little	Moderate	High		
41	Therapeutic	0	14	23	37	2.62
	Resource	8	3	1	12	1.41
	Recreation	5	9	12	26	2.26
	Pks & Rec	5	13	19	37	2.37
	Total	18	39	55	112	2.33
	Chi square = 31.23349** (d.f. = 6) Significance = .0001 Missing = 11					
42	Therapeutic	8	18	11	37	2.08
	Resource	11	1	0	12	1.08
	Recreation	8	13	5	26	1.88
	Pks & Rec	14	15	7	36	1.80
	Total	41	47	23	111	1.83
	Chi square = 20.36691* (d.f. = 6) Significance = .0024 Missing = 12					
43	Therapeutic	20	10	6	36	1.61
	Resource	3	3	7	13	2.30
	Recreation	15	9	2	26	1.50
	Pks & Rec	12	15	7	34	1.85
	Total	50	37	22	109	1.74
	Chi square = 15.25743* (d.f. = 6) Significance = .0183 Missing = 14					
44	Therapeutic	0	9	28	37	2.75
	Resource	9	3	1	13	1.38
	Recreation	3	16	7	26	2.15
	Pks & Rec	7	16	15	38	2.21
	Total	19	44	51	114	2.28
	Chi square = 48.61304** (d.f. = 6) Significance = .0001 Missing = 9					
45	Therapeutic	1	12	25	38	2.63
	Resource	10	2	1	13	1.30
	Recreation	1	10	15	26	2.53
	Pks & Rec	5	17	16	38	2.28
	Total	17	41	57	115	2.34
	Chi square = 49.92656** (d.f. = 6) Significance = .0001 Missing = 8					

Table 19 (Continued)

Item number	Agency orientation	Competency need			Total	Mean scores
		Little	Moderate	High		
46	Therapeutic	19	14	3	36	1.55
	Resource	1	2	11	14	2.71
	Recreation	15	7	3	25	1.52
	Pks & Rec	10	14	14	38	2.10
	Total	45	37	31	113	1.87
	Chi square = 33.33653** (d.f. = 6) Significance = .0001 Missing = 10					
47	Therapeutic	25	10	1	36	1.33
	Resource	0	0	15	15	3.00
	Recreation	19	4	2	25	1.32
	Pks & Rec	12	11	18	41	2.14
	Total	56	25	36	117	1.82
	Chi square = 61.62963** (d.f. = 6) Significance = .0001 Missing = 6					
48	Therapeutic	10	8	19	37	2.24
	Resource	5	4	4	13	1.92
	Recreation	13	10	3	26	1.61
	Pks & Rec	5	19	12	36	2.19
	Total	33	41	38	112	2.04
	Chi square = 19.29784* (d.f. = 6) Significance = .0037 Missing = 11					
49	Therapeutic	21	8	7	36	1.61
	Resource	3	4	6	13	2.23
	Recreation	13	3	9	25	1.84
	Pks & Rec	6	10	24	40	2.45
	Total	43	25	46	114	2.02
	Chi square = 21.33321* (d.f. = 6) Significance = .0016 Missing = 9					
50	Therapeutic	22	5	10	37	1.67
	Resource	9	3	0	12	2.00
	Recreation	5	3	18	26	2.50
	Pks & Rec	8	9	18	35	2.28
	Total	44	20	46	110	2.01
	Chi square = 27.42551** (d.f. = 6) Significance = .0001 Missing = 13					

Table 19 (Continued)

Item number	Agency orientation	Competency need			Total	Mean scores
		Little	Moderate	High		
51	Therapeutic	31	4	1	36	1.16
	Resource	5	7	0	12	1.58
	Recreation	19	5	1	25	1.28
	Pks & Rec	20	9	7	36	1.63
	Total	75	25	9	109	1.39
	Chi square = 21.17451* (d.f. = 6) Significance = .0017 Missing = 14					
52	Therapeutic	31	3	2	36	1.19
	Resource	1	6	7	14	2.42
	Recreation	18	5	2	25	1.36
	Pks & Rec	15	10	15	40	2.00
	Total	65	24	26	115	1.66
	Chi square = 37.08600** (d.f. = 6) Significance = .0001 Missing = 8					
53	Therapeutic	27	6	3	36	1.33
	Resource	1	6	7	14	2.42
	Recreation	21	2	2	25	2.42
	Pks & Rec	16	10	14	40	1.95
	Total	65	24	26	115	1.66
	Chi square = 32.31180** (d.f. = 6) Significance = .0001 Missing = 8					
54	Therapeutic	30	3	3	36	1.25
	Resource	1	4	8	13	2.53
	Recreation	19	4	3	26	1.38
	Pks & Rec	13	12	14	39	2.02
	Total	63	23	28	114	1.69
	Chi square = 35.96637** (d.f. = 6) Significance = .0001 Missing = 9					
55	Therapeutic	27	7	2	36	1.30
	Resource	5	4	5	14	2.00
	Recreation	18	6	1	25	1.32
	Pks & Rec	13	13	10	36	1.91
	Total	63	30	18	111	1.59
	Chi square = 19.96577* (d.f. = 6) Significance = .0028 Missing = 12					

Table 19 (Continued)

Item number	Agency orientation	Competency need			Total	Mean scores
		Little	Moderate	High		
56	Therapeutic	3	10	24	37	2.56
	Resource	12	0	0	12	1.00
	Recreation	20	2	3	25	1.32
	Pks & Rec	27	5	2	34	1.26
	Total	62	17	29	108	1.69
	Chi square = 61.15941** (d.f. = 6) Significance = .0001 Missing = 15					
57	Therapeutic	15	11	10	36	1.86
	Resource	11	1	1	13	1.23
	Recreation	19	4	2	25	1.52
	Pks & Rec	23	4	8	35	1.57
	Total	68	23	16	109	1.56
	Chi square = 13.16744* (d.f. = 6) Significance = .0405 Missing = 14					
58	Therapeutic	12	14	10	36	1.94
	Resource	12	0	0	12	1.00
	Recreation	19	4	2	25	1.32
	Pks & Rec	25	5	4	34	1.38
	Total	68	23	16	107	1.51
	Chi square = 24.34338** (d.f. = 6) Significance = .0005 Missing = 16					
59	Therapeutic	1	8	27	36	2.72
	Resource	10	2	1	13	1.30
	Recreation	10	13	3	26	1.73
	Pks & Rec	21	10	3	34	1.47
	Total	42	33	34	109	1.92
	Chi square = 59.87578** (d.f. = 6) Significance = .0001 Missing = 14					
60	Therapeutic	2	10	26	38	2.63
	Resource	12	0	0	12	1.00
	Recreation	12	8	5	25	1.72
	Pks & Rec	23	8	3	34	1.41
	Total	49	26	34	109	1.86
	Chi square = 56.09302** (d.f. = 6) Significance = .0001 Missing = 14					

Table 20. Entry level competency need by age

Item number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
1	25 or less	3	3	16	22	2.59
	26-40	1	6	42	49	2.83
	41-55	6	8	17	31	2.35
	56 or more	0	4	10	14	2.71
	Total	10	21	85	116	2.64
Chi square = 13.96823* (d.f. = 6) Significance = .0300						
Missing = 7						
2	25 or less	0	2	20	22	
	26-40	0	8	42	50	
	41-55	0	4	29	33	
	56 or more	1	4	11	16	
	Total	1	18	102	121	
Chi square = 8.99427 (d.f. = 6) Significance = .1739						
Missing = 2						
3	25 or less	2	2	18	22	
	26-40	3	16	29	48	
	41-55	1	5	27	33	
	56 or more	2	5	9	16	
	Total	8	28	83	119	
Chi square = 9.12885 (d.f. = 6) Significance = .1665						
Missing = 4						
4	25 or less	0	9	13	22	
	26-40	2	23	23	48	
	41-55	0	12	21	33	
	56 or more	1	5	10	16	
	Total	3	49	67	119	
Chi square = 4.93751 (d.f. = 6) Significance = .5519						
Missing = 4						
5	25 or less	2	4	16	22	
	26-40	3	15	28	46	
	41-55	3	8	21	32	
	56 or more	1	5	10	16	
	Total	9	32	75	116	
Chi square = 1.9695 (d.f. = 6) Significance = .9272						
Missing = 7						

*Significant at the $P \leq .05$ level.

Table 20 (Continued)

Item number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
6	25 or less	7	2	12	21	
	26-40	15	16	14	45	
	41-55	13	8	10	31	
	56 or more	5	1	7	13	
	Total	40	27	43	110	
	Chi square = 9.70233 (d.f. = 6) Significance = .1378					
	Missing = 13					
7	25 or less	8	5	8	21	
	26-40	17	10	20	47	
	41-55	13	8	10	31	
	56 or more	4	3	8	15	
	Total	42	26	46	114	
	Chi square = 2.09886 (d.f. = 6) Significance = .9104					
	Missing = 9					
8	25 or less	3	7	11	21	
	26-40	10	16	21	47	
	41-55	5	6	21	32	
	56 or more	3	3	9	15	
	Total	21	32	62	115	
	Chi square = 4.39094 (d.f. = 6) Significance = .6239					
	Missing = 8					
9	25 or less	11	5	5	21	
	26-40	19	17	9	45	
	41-55	15	11	5	31	
	56 or more	3	6	4	13	
	Total	48	39	23	110	
	Chi square = 4.14519 (d.f. = 6) Significance = .6570					
	Missing = 13					
10	25 or less	14	5	2	21	
	26-40	33	8	4	45	
	41-55	24	5	2	31	
	56 or more	7	1	4	12	
	Total	78	19	12	109	
	Chi square = 7.86828 (d.f. = 6) Significance = .2479					
	Missing = 14					

Table 20 (Continued)

Item number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
11	25 or less	10	6	5	21	
	26-40	16	13	17	46	
	41-55	14	11	7	32	
	56 or more	3	4	5	12	
	Total	43	34	34	111	
	Chi square = 3.89194 (d.f. = 6) Significance = .6913					
	Missing = 12					
12	25 or less	4	9	9	22	
	26-40	0	25	12	46	
	41-55	7	14	11	32	
	56 or more	3	3	5	11	
	Total	23	51	37	111	
	Chi square = 3.64185 (d.f. = 6) Significance = .7250					
	Missing = 12					
13	25 or less	7	3	12	22	
	26-40	6	10	30	46	
	41-55	4	7	22	33	
	56 or more	1	4	10	15	
	Total	18	24	74	116	
	Chi square = 6.13975 (d.f. = 6) Significance = .4077					
	Missing = 7					
14	25 or less	7	3	11	21	
	26-40	9	13	24	46	
	41-55	7	11	15	33	
	56 or more	1	7	7	15	
	Total	24	34	57	115	
	Chi square = 6.61410 (d.f. = 6) Significance = .3580					
	Missing = 8					
15	25 or less	12	5	4	21	
	26-40	22	12	11	45	
	41-55	11	10	10	31	
	56 or more	4	4	6	14	
	Chi square = 4.80635 (d.f. = 6) Significance = .5689					
	Missing = 12					

Table 20 (Continued)

Item number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
16	25 or less	3	3	15	21	
	26-40	1	13	35	49	
	41-55	2	10	19	31	
	56 or more	0	3	12	15	
	Total	6	29	81	116	
	Chi square = 7.55987 (d.f. = 6) Significance = .2722					
Missing = 7						
17	25 or less	11	6	4	21	
	26-40	22	15	8	45	
	41-55	13	15	3	31	
	56 or more	5	3	5	13	
	Total	51	39	20	110	
	Chi square = 7.08034 (d.f. = 6) Significance = .3135					
Missing = 13						
18	25 or less	5	6	11	22	
	26-40	5	15	27	47	
	41-55	7	10	15	32	
	56 or more	3	2	8	13	
	Total	20	33	61	114	
	Chi square = 3.83912 (d.f. = 6) Significance = .6984					
Missing = 9						
19	25 or less	0	7	14	21	
	26-40	2	10	39	51	
	41-55	3	2	28	33	
	56 or more	0	3	12	15	
	Total	5	22	93	120	
	Chi square = 9.35116 (d.f. = 6) Significance = .1548					
Missing = 3						
20	25 or less	3	5	14	22	
	26-40	6	22	20	48	
	41-55	2	9	21	32	
	56 or more	2	1	11	14	
	Total	13	37	66	116	
	Chi square = 11.05943 (d.f. = 6) Significance = .0866					
Missing = 7						

Table 20 (Continued)

Item number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
21	25 or less	9	4	8	21	
	26-40	24	14	9	47	
	41-55	8	11	13	32	
	56 or more	5	2	6	11	
	Total	46	31	36	113	
Chi square = 9.34613 (d.f. = 6) Significance = .1550						
Missing = 10						
22	25 or less	10	5	6	21	1.80
	26-40	17	22	9	48	1.83
	41-55	6	8	19	33	2.39
	56 or more	6	3	6	15	2.00
	Total	39	38	40	117	2.00
Chi square = 17.31898* (d.f. = 6) Significance = .0082						
Missing = 6						
23	25 or less	4	5	12	21	
	26-40	10	19	19	48	
	41-55	6	13	14	33	
	56 or more	3	3	8	14	
	Total	23	40	53	116	
Chi square = 3.54630 (d.f. = 6) Significance = .7378						
Missing = 7						
24	25 or less	15	4	2	21	1.38
	26-40	16	17	12	45	2.55
	41-55	9	16	6	31	1.90
	56 or more	0	7	6	13	2.46
	Total	40	44	26	110	1.87
Chi square = 21.29619* (d.f. = 6) Significance = .0016						
Missing = 13						
25	25 or less	17	4	0	21	1.19
	26-40	25	16	4	45	1.53
	41-55	13	12	6	31	1.77
	56 or more	3	6	4	13	2.07
	Total	58	38	14	110	1.60
Chi square = 15.81788* (d.f. = 6) Significance = .0148						
Missing = 13						

Table 20 (Continued)

Item number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
26	25 or less	14	4	3	21	
	26-40	22	10	14	46	
	41-55	16	9	6	31	
	56 or more	4	4	6	14	
	Total	56	27	29	112	
	Chi square = 6.79660 (d.f. = 6) Significance = .3401					
	Missing = 11					
27	25 or less	5	7	9	21	
	26-40	7	17	23	47	
	41-55	5	17	9	31	
	56 or more	3	2	7	12	
	Total	20	43	48	111	
	Chi square = 7.28606 (d.f. = 6) Significance = .2952					
	Missing = 12					
28	25 or less	5	4	12	21	2.33
	26-40	3	15	29	47	2.55
	41-55	5	17	10	32	2.15
	56 or more	1	5	9	15	2.53
	Total	14	41	60	115	2.40
	Chi square = 12.66643* (d.f. = 6) Significance = .0486					
	Missing = 8					
29	25 or less	3	1	18	22	
	26-40	1	19	26	46	
	41-55	2	13	17	32	
	56 or more	1	5	8	14	
	Total	7	38	69	114	
	Chi square = 12.18186 (d.f. = 6) Significance = .0580					
	Missing = 9					
30	25 or less	3	4	15	22	
	26-40	4	20	22	46	
	41-55	6	13	12	31	
	56 or more	1	6	7	14	
	Total	14	43	56	113	
	Chi square = 7.20989 (d.f. = 6) Significance = .3019					
	Missing = 10					

Table 20 (Continued)

Item number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
31	25 or less	4	3	15	22	2.50
	26-40	5	14	29	48	2.50
	41-55	14	5	12	31	1.93
	56 or more	3	3	7	13	2.30
	Total	26	25	63	114	2.32
	Chi square = 14.98574* (d.f. = 6) Significance = .0204 Missing = 9					
32	25 or less	5	10	6	21	
	26-40	18	13	15	46	
	41-55	18	7	6	31	
	56 or more	3	5	4	12	
	Total	44	35	31	110	
	Chi square = 8.90793 (d.f. = 6) Significance = .1788 Missing = 13					
33	25 or less	2	8	11	21	
	26-40	3	7	37	47	
	41-55	1	9	23	33	
	56 or more	0	2	12	14	
	Total	6	26	83	115	
	Chi square = 7.91625 (d.f. = 6) Significance = .2443 Missing = 8					
34	25 or less	6	7	8	21	2.09
	26-40	6	7	33	46	2.58
	41-55	5	14	12	31	2.22
	56 or more	1	4	8	13	2.53
	Total	18	32	61	111	2.38
	Chi square = 13.86988* (d.f. = 6) Significance = .0311 Missing = 12					
35	25 or less	12	6	3	21	
	26-40	21	16	8	45	
	41-55	14	9	9	32	
	56 or more	2	5	6	13	
	Total	49	36	26	111	
	Chi square = 8.39661 (d.f. = 6) Significance = .2105 Missing = 12					

Table 20 (Continued)

Item Number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
36	25 or less	8	5	9	22	
	26-40	15	21	10	46	
	41-55	13	13	5	31	
	56 or more	1	5	6	12	
	Total	37	44	30	111	
	Chi square = 10.81673 (d.f. = 6) Significance = .0942 Missing = 12					
37	25 or less	5	5	11	21	
	26-40	12	23	13	48	
	41-55	13	10	8	31	
	56 or more	3	5	5	13	
	Total	33	43	37	113	
	Chi square = 8.5376 (d.f. = 6) Significance = .2014 Missing = 10					
38	25 or less	3	9	10	22	2.31
	26-40	14	22	10	46	1.91
	41-55	17	11	3	31	1.54
	56 or more	4	4	4	12	2.00
	Total	38	46	27	111	1.90
	Chi square = 14.97663* (d.f. = 6) Significance = .0204 Missing = 12					
39	25 or less	7	7	7	21	
	26-40	14	24	8	46	
	41-55	16	11	4	31	
	56 or more	4	4	4	12	
	Total	41	46	23	110	
	Chi square = 8.12872 (d.f. = 6) Significance = .2288 Missing = 13					
40	25 or less	12	5	4	21	
	26-40	16	20	9	45	
	41-55	13	12	7	32	
	56 or more	2	4	6	12	
	Total	43	41	26	110	
	Chi square = 9.15949 (d.f. = 6) Significance = .1648 Missing = 13					

Table 20 (Continued)

Item number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
41	25 or less	3	5	14	22	
	26-40	5	16	26	47	
	41-55	9	11	11	31	
	56 or more	1	7	4	12	
	Total	18	39	55	112	
	Chi square = 10.56767 (d.f. = 6) Significance = .1027					
	Missing = 11					
42	25 or less	7	8	6	21	
	26-40	14	23	9	46	
	41-55	16	10	5	32	
	56 or more	4	6	3	13	
	Total	41	47	23	111	
	Chi square = 5.06206 (d.f. = 6) Significance = .5359					
	Missing = 12					
43	25 or less	11	5	5	21	1.71
	26-40	23	19	2	44	1.52
	41-55	12	9	11	32	1.96
	56 or more	4	4	4	12	2.00
	Total	50	37	22	109	1.74
	Chi square = 13.23836* (d.f. = 6) Significance = .0394					
	Missing = 14					
44	25 or less	2	7	13	22	2.50
	26-40	7	16	24	47	2.36
	41-55	10	12	9	31	1.96
	56 or more	0	9	5	14	2.35
	Total	19	44	51	114	2.28
	Chi square = 14.00693* (d.f. = 6) Significance = .0296					
	Missing = 9					
45	25 or less	2	5	15	22	2.59
	26-40	4	17	26	47	2.46
	41-55	10	13	8	31	1.93
	56 or more	1	6	8	15	2.46
	Total	17	41	57	115	2.34
	Chi square = 15.68833* (d.f. = 6) Significance = .0155					
	Missing = 8					

Table 20 (Continued)

Item number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
51	25 or less	16	4	1	21	
	26-40	34	7	4	45	
	41-55	17	11	3	31	
	56 or more	8	3	1	12	
	Total	75	25	9	109	
	Chi square = 5.11707 (d.f. = 6) Significance = .5289					
Missing = 14						
52	25 or less	16	1	4	21	1.42
	26-40	30	12	5	47	1.46
	41-55	11	9	13	33	2.06
	56 or more	8	2	4	14	1.71
	Total	65	24	26	115	1.66
	Chi square = 16.49128 (d.f. = 6) Significance = .0114					
Missing = 8						
53	25 or less	12	4	5	21	
	26-40	32	10	5	47	
	41-55	14	7	12	33	
	56 or more	7	3	4	14	
	Total	65	24	26	115	
	Chi square = 8.39397 (d.f. = 6) Significance = .2106					
Missing = 8						
54	25 or less	15	3	3	21	
	26-40	29	9	8	46	
	41-55	13	9	10	32	
	56 or more	6	2	7	15	
	Total	63	23	28	114	
	Chi square = 10.52262 (d.f. = 6) Significance = .1043					
Missing = 9						
55	25 or less	17	2	2	21	1.28
	26-40	27	15	3	45	1.46
	41-55	14	10	8	32	1.81
	56 or more	5	3	5	13	2.00
	Total	63	30	18	111	1.59
	Chi square = 15.89900* (d.f. = 6) Significance = .0143					
Missing = 12						

Table 20 (Continued)

Item number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
56	25 or less	7	4	11	22	2.18
	26-40	23	10	11	44	1.72
	41-55	22	3	6	31	1.48
	56 or more	10	0	1	11	1.18
	Total	62	17	29	108	1.69
Chi square = 16.14574* (d.f. = 6) Significance = .0130						
Missing = 15						
57	25 or less	12	2	6	21	
	26-40	25	12	8	45	
	41-55	22	5	4	31	
	56 or more	9	0	3	12	
	Total	68	20	21	109	
Chi square = 7.12374 (d.f. = 6) Significance = .3096						
Missing = 14						
58	25 or less	11	5	5	21	
	26-40	27	11	6	44	
	41-55	21	6	4	31	
	56 or more	9	1	1	11	
	Total	68	23	16	107	
Chi square = 3.75836 (d.f. = 6) Significance = .7093						
Missing = 14						
59	25 or less	4	4	13	21	2.42
	26-40	12	19	13	44	2.02
	41-55	18	8	5	31	1.58
	56 or more	8	2	3	13	1.67
	Total	42	33	34	109	1.92
Chi square = 21.74174** (d.f. = 6) Significance = .0013						
Missing = 14						
60	25 or less	5	5	12	22	2.31
	26-40	16	13	15	44	1.97
	41-55	19	6	6	31	1.58
	56 or more	9	2	1	12	1.33
	Total	49	26	34	109	1.86
Chi square = 15.89103* (d.f. = 6) Significance = .0144						
Missing = 14						

**Significant at the $P \leq .05$ level.

Table 20 (Continued)

Item number	Age	Competency need			Total	Mean scores
		Little	Moderate	High		
61	25 or less	9	4	8	2	
	26-40	19	16	9	44	
	41-55	19	5	7	31	
	56 or more	8	3	1	12	
	Total	55	28	25	108	
	Chi square = 8.71497 (d.f. = 6) Significance = .1903					
Missing = 15						
62	25 or less	7	4	11	22	
	26-40	18	14	13	45	
	41-55	18	6	8	32	
	56 or more	6	4	3	13	
	Total	49	28	35	112	
	Chi square = 7.00813 (d.f. = 6) Significance = .3201					
Missing = 11						
63	25 or less	8	5	9	22	
	26-40	22	13	9	44	
	41-55	19	6	6	31	
	56 or more	9	1	1	11	
	Total	58	25	25	108	
	Chi square = 9.47437 (d.f. = 6) Significance = .1486					
Missing = 15						
64	25 or less	10	2	9	21	1.95
	26-40	17	18	9	44	1.81
	41-55	13	9	9	31	1.87
	56 or more	9	1	2	12	1.41
	Total	49	30	29	108	
	Chi square = 12.95956* (d.f. = 6) Significance = .0437					
Missing = 15						
65	25 or less	5	5	12	22	
	26-40	15	16	13	44	
	41-55	15	8	8	31	
	56 or more	8	3	2	13	
	Total	43	32	35	110	
	Chi square = 10.63063 (d.f. = 6) Significance = .1005					
Missing = 13						

Table 21. Entry level competency need by administrative level in agency

Item number	Administrative level	Competency need			Total	Mean scores
		Little	Moderate	High		
1	Leadership	1	2	10	13	
	Supervisory	4	6	25	35	
	Administrative	5	10	44	59	
	Policy	0	3	6	9	
	Total	10	21	85	116	
	Chi square = 2.48504 (d.f. = 6) Significance = .9701 Missing = 7					
2	Leadership	0	3	9	12	2.75
	Supervisory	0	4	33	37	2.89
	Administrative	0	9	53	62	2.85
	Policy	1	2	7	10	2.60
	Total	1	18	102	121	2.83
	Chi square = 13.00065 (d.f. = 6) Significance = .0430 Missing = 2					
3	Leadership	1	1	9	11	
	Supervisory	2	10	25	37	
	Administrative	4	13	43	60	
	Policy	1	4	6	11	
	Total	8	28	83	119	
	Chi square = 2.95597 (d.f. = 6) Significance = .8144 Missing = 4					
4	Leadership	1	2	7	10	2.60
	Supervisory	0	17	20	37	2.54
	Administrative	2	21	38	61	2.59
	Policy	0	9	2	11	2.18
	Total	3	49	67	119	2.53
	Chi square = 13.4346* (d.f. = 6) Significance = .0352 Missing = 4					
5	Leadership	1	4	6	11	
	Supervisory	4	9	22	35	
	Administrative	4	15	41	60	
	Policy	0	4	6	10	
	Total	9	32	75	116	
	Chi square = 2.90703 (d.f. = 6) Significance = .8204 Missing = 7					

*Significant at the $P \leq .05$ level.

Table 21 (Continued)

Item number	Administrative level	Competency need			Total	Mean scores
		Little	Moderate	High		
11	Leadership	8	1	2	11	1.45
	Supervisory	19	6	9	34	1.70
	Administrative	14	22	20	56	2.10
	Policy	2	5	3	10	2.10
	Total	43	34	34	111	1.91
	Chi square = 16.84889* (d.f. = 6) Significance = .0099 Missing = 12					
12	Leadership	6	2	4	12	
	Supervisory	5	16	14	35	
	Administrative	9	28	18	55	
	Policy	3	5	1	9	
	Total	23	51	37	111	
	Chi square = 11.38029 (d.f. = 6) Significance = .0773 Missing = 12					
13	Leadership	3	1	7	11	
	Supervisory	5	16	14	35	
	Administrative	9	28	18	55	
	Policy	3	5	1	9	
	Total	18	24	74	116	
	Chi square = 7.97069 (d.f. = 6) Significance = .2403 Missing = 7					
14	Leadership	3	2	6	11	2.27
	Supervisory	13	6	16	35	2.08
	Administrative	8	20	30	58	2.37
	Policy	0	6	5	11	2.45
	Total	24	34	57	115	2.28
	Chi square = 13.70155* (d.f. = 6) Significance = .0332 Missing = 8					
15	Leadership	7	3	2	12	
	Supervisory	18	8	7	33	
	Administrative	20	18	18	56	
	Policy	4	2	4	10	
	Total	49	31	31	111	
	Chi square = 5.03093 (d.f. = 6) Significance = .5399 Missing = 12					

Table 21 (Continued)

Item number	Administrative level	Competency need			Total	Mean scores
		Little	Moderate	High		
16	Leadership	0	3	9	12	
	Supervisory	4	6	24	34	
	Administrative	2	15	43	60	
	Policy	0	5	5	10	
	Total	6	29	81	116	
	Chi square = 8.26308 (d.f. = 6) Significance = .2195 Missing = 7					
17	Leadership	5	4	2	11	
	Supervisory	19	10	4	33	
	Administrative	23	21	12	56	
	Policy	4	4	2	10	
	Total	51	39	20	110	
	Chi square = 2.70581 (d.f. = 6) Significance = .8448 Missing = 13					
18	Leadership	1	4	6	11	
	Supervisory	12	9	15	36	
	Administrative	7	17	33	57	
	Policy	0	3	7	10	
	Total	20	33	61	114	
	Chi square = 10.29880 (d.f. = 6) Significance = .1126 Missing = 9					
19	Leadership	1	3	8	12	2.58
	Supervisory	3	10	23	36	2.55
	Administrative	1	5	56	62	2.88
	Policy	0	4	6	10	2.60
	Total	5	22	93	120	2.73
	Chi square = 14.30901* (d.f. = 6) Significance = .0264 Missing = 3					
20	Leadership	2	2	8	12	
	Supervisory	4	12	18	34	
	Administrative	7	19	35	61	
	Policy	0	4	5	9	
	Total	13	37	66	116	
	Chi square = 3.09197 (d.f. = 6) Significance = .7972 Missing = 7					

Table 21 (Continued)

Item number	Administrative level	Competency need			Total	Mean scores
		Little	Moderate	High		
21	Leadership	4	2	5	11	
	Supervisory	18	9	7	34	
	Administrative	21	16	21	58	
	Policy	3	4	3	10	
	Total	46	31	36	113	
	Chi square = 5.15096 (d.f. = 6) Significance = .5246 Missing = 10					
22	Leadership	7	2	2	11	
	Supervisory	15	10	19	35	
	Administrative	13	22	25	60	
	Policy	4	4	3	11	
	Total	39	38	40	117	
	Chi square = 9.97762 (d.f. = 6) Significance = .1256 Missing = 6					
23	Leadership	1	2	8	11	2.63
	Supervisory	13	5	17	35	2.11
	Administrative	6	29	25	60	2.31
	Policy	3	4	3	10	2.00
	Total	23	40	53	116	2.25
	Chi square = 20.36571* (d.f. = 6) Significance = .0034 Missing = 7					
24	Leadership	6	4	2	12	
	Supervisory	18	9	6	33	
	Administrative	13	26	17	56	
	Policy	3	5	1	9	
	Total	40	44	26	110	
	Chi square = 11.22133 (d.f. = 6) Significance = .818 Missing = 13					
25	Leadership	8	1	3	12	1.50
	Supervisory	24	9	0	33	1.48
	Administrative	23	22	10	55	1.92
	Policy	3	6	1	10	2.00
	Total	58	38	14	110	1.60
	Chi square = 13.06095* (d.f. = 6) Significance = .0421 Missing = 11					

Table 21 (Continued)

Item number	Administrative level	Competency need			Total	Mean scores
		Little	Moderate	High		
26	Leadership	9	0	3	12	1.50
	Supervisory	22	6	5	33	1.48
	Administrative	22	17	18	57	1.92
	Policy	3	4	3	10	2.00
	Total	56	27	29	112	1.75
Chi square = 13.06095* (d.f. = 6) Significance = .0421						
Missing = 11						
27	Leadership	3	3	6	12	
	Supervisory	7	12	15	34	
	Administrative	9	23	24	56	
	Policy	1	5	3	9	
	Total	20	43	48	111	
Chi square = 2.56892 (d.f. = 6) Significance = .8607						
Missing = 12						
28	Leadership	3	4	6	13	
	Supervisory	7	11	17	35	
	Administrative	4	23	31	58	
	Policy	0	3	6	9	
	Total	14	41	60	115	
Chi square = 6.54687 (d.f. = 6) Significance = .3648						
Missing = 8						
29	Leadership	0	4	8	12	
	Supervisory	1	10	24	35	
	Administrative	6	17	35	58	
	Policy	0	7	2	9	
	Total	7	38	69	114	
Chi square = 12.05772 (d.f. = 6) Significance = .0607						
Missing = 9						
30	Leadership	0	6	6	12	
	Supervisory	4	9	21	34	
	Administrative	8	22	28	58	
	Policy	2	6	1	9	
	Total	14	43	56	113	
Chi square = 9.60384 (d.f. = 6) Significance = .1424						
Missing = 10						

Table 21 (Continued)

Item number	Administrative level	Competency need			Total	Mean scores
		Little	Moderate	High		
31	Leadership	2	4	5	11	
	Supervisory	9	6	20	35	
	Administration	15	11	33	59	
	Policy	0	4	5	9	
	Total	26	25	63	114	
	Chi square = 6.46299 (d.f. = 6) Significance .3734					
Missing = 9						
32	Leadership	4	5	2	11	
	Supervisory	17	9	7	33	
	Administrative	21	16	20	57	
	Policy	2	5	2	9	
	Total	44	35	31	110	
	Chi square = 6.72326 (d.f. = 6) Significance = .3472					
Missing = 13						
33	Leadership	1	4	6	11	
	Supervisory	4	7	23	34	
	Administrative	1	12	48	61	
	Policy	0	3	6	9	
	Total	6	26	83	115	
	Chi square = 7.71536 (d.f. = 6) Significance = .2597					
Missing = 3						
34	Leadership	4	3	4	11	2.00
	Supervisory	10	10	13	33	2.09
	Administrative	4	15	39	58	2.60
	Policy	0	4	5	9	2.55
	Total	18	32	61	111	2.38
	Chi square = 16.06985* (d.f. = 6) Significance = .0134					
Missing = 12						
35	Leadership	7	2	3	12	
	Supervisory	21	7	6	34	
	Administrative	19	22	15	56	
	Policy	2	5	2	9	
	Total	49	36	26	111	
	Chi square = 10.70019 (d.f. = 6) Significance = .0981					
Missing = 12						

Table 21 (Continued)

Item number	Administrative level	Competency need			Total	Mean scores
		Little	Moderate	High		
36	Leadership	6	3	2	11	
	Supervisory	13	8	14	35	
	Administrative	16	29	11	56	
	Policy	2	4	3	9	
	Total	37	44	30	111	
	Chi square = 11.15945 (d.f. = 6) Significance = .0836					
	Missing = 12					
37	Leadership	5	2	5	12	
	Supervisory	9	11	14	34	
	Administrative	17	26	15	58	
	Policy	2	4	3	9	
	Total	33	43	37	113	
	Chi square = 5.274433 (d.f. = 6) Significance = .5091					
	Missing = 10					
38	Leadership	4	3	4	11	
	Supervisory	11	12	12	35	
	Administrative	20	27	9	56	
	Policy	3	4	2	9	
	Total	38	46	27	111	
	Chi square = 5.40545 (d.f. = 6) Significance = .4930					
	Missing = 12					
39	Leadership	8	0	3	11	
	Supervisory	10	15	9	34	
	Administrative	19	28	9	56	
	Policy	4	3	2	9	
	Total	41	46	23	110	
	Chi square = 11.61024 (d.f. = 6) Significance = .0713					
	Missing = 13					
40	Leadership	0	6	5	11	1.63
	Supervisory	19	5	11	35	1.77
	Administrative	16	26	13	55	1.94
	Policy	3	5	1	9	1.77
	Total	43	41	26	110	1.84
	Chi square = 13.58764* (d.f. = 6) Significance = .0346					
	Missing = 13					

Table 21 (Continued)

Item number	Administrative level	Competency need			Total	Mean scores
		Little	Moderate	High		
41	Leadership	0	6	5	11	
	Supervisory	6	11	18	35	
	Administrative	11	18	28	57	
	Policy	1	4	4	9	
	Total	18	39	55	112	
	Chi square = 4.16418 (d.f. = 6) Significance = .6545					
	Missing = 11					
42	Leadership	4	5	3	12	
	Supervisory	14	11	9	34	
	Administrative	18	28	10	56	
	Policy	5	3	1	9	
	Total	41	47	23	111	
	Chi square = 4.42261 (d.f. = 6) Significance = .6197					
	Missing = 12					
43	Leadership	6	4	1	11	
	Supervisory	18	10	6	34	
	Administrative	22	19	14	55	
	Policy	4	4	1	9	
	Total	50	37	22	109	
	Chi square = 3.39423 (d.f. = 6) Significance = .7580					
	Missing = 14					
44	Leadership	1	6	4	11	
	Supervisory	5	9	21	35	
	Administrative	11	23	25	59	
	Policy	2	6	1	9	
	Total	19	44	51	114	
	Chi square = 9.21572 (d.f. = 6) Significance = .1618					
	Missing = 9					
45	Leadership	2	4	6	12	
	Supervisory	4	12	19	35	
	Administrative	9	21	29	59	
	Policy	2	4	3	9	
	Total	17	41	57	115	
	Chi square = 1.51089* (d.f. = 6) Significance = .9588					
	Missing = 8					

Table 21 (Continued)

Item number	Administrative level	Competency need			Total	Mean scores
		Little	Moderate	High		
46	Leadership	7	3	1	11	
	Supervisory	17	8	10	35	
	Administrative	18	20	18	56	
	Policy	3	6	2	9	
	Total	45	37	31	113	
	Chi square = 8.55816 (d.f. = 6) Significance = .2000					
Missing = 10						
47	Leadership	7	3	2	12	
	Supervisory	21	5	9	35	
	Administrative	23	15	21	59	
	Policy	5	2	4	11	
	Total	56	25	36	117	
	Chi square = 5.36391 (d.f. = 6) Significance = .4981					
Missing = 6						
48	Leadership	3	4	5	12	2.16
	Supervisory	14	6	15	35	2.02
	Administrative	13	25	18	56	2.08
	Policy	3	6	0	9	1.66
	Total	33	41	38	112	2.04
	Chi square = 13.19489* (d.f. = 6) Significance = .0400					
Missing = 11						
49	Leadership	7	1	3	11	1.63
	Supervisory	18	4	13	35	1.85
	Administrative	17	16	24	57	2.12
	Policy	1	4	6	11	2.45
	Total	43	25	46	114	2.02
	Chi square = 12.79461* (d.f. = 6) Significance = .0464					
Missing = 9						
50	Leadership	7	2	2	11	
	Supervisory	16	4	14	34	
	Administrative	19	12	25	56	
	Policy	2	2	5	9	
	Total	44	20	46	110	
	Chi square = 6.34851 (d.f. = 6) Significance = .3853					
Missing = 13						

Item number	Administrative level	Competency need			Total	Mean scores
		Little	Moderate	High		
56	Leadership	4	2	5	11	2.09
	Supervisory	14	6	14	34	2.00
	Administrative	36	8	10	54	1.51
	Policy	8	1	0	9	1.11
	Total	62	17	29	108	1.69
	Chi square = 12.87017* (d.f. = 6) Significance = .0451					
	Missing = 15					
57	Leadership	7	3	1	11	
	Supervisory	21	2	10	33	
	Administrative	33	13	10	56	
	Policy	7	2	0	9	
	Total	68	20	21	109	
	Chi square = 8.91962 (d.f. = 6) Significance = .1782					
	Missing = 14					
58	Leadership	7	2	2	11	
	Supervisory	19	8	6	33	
	Administrative	35	11	8	54	
	Policy	7	2	0	9	
	Total	68	23	16	107	
	Chi square = 2.34486 (d.f. = 6) Significance = .8854					
	Missing = 16					
59	Leadership	3	1	7	11	2.36
	Supervisory	10	9	14	33	2.12
	Administrative	24	19	13	56	1.80
	Policy	5	4	0	9	1.44
	Total	42	33	34	109	1.92
	Chi square = 13.45976* (d.f. = 6) Significance = .0363					
	Missing = 14					
60	Leadership	3	3	6	12	2.25
	Supervisory	11	7	16	34	2.14
	Administrative	31	11	12	54	1.64
	Policy	4	5	0	9	1.55
	Total	49	26	34	109	1.86
	Chi square = 16.65758* (d.f. = 6) Significance = .0106					
	Missing = 14					

Table 21 (Continued)

Item number	Administrative level	Competency need			Total	Mean scores
		Little	Moderate	High		
61	Leadership	4	3	5	12	2.08
	Supervisory	11	10	12	33	2.03
	Administrative	35	11	8	54	1.50
	Policy	5	4	0	9	1.44
	Total	55	28	25	108	1.72
	Chi square = 14.87025* (d.f. = 6) Significance = .0213 Missing = 15					
62	Leadership	4	4	4	12	
	Supervisory	11	7	16	34	
	Administrative	29	14	14	57	
	Policy	5	3	1	9	
	Total	49	28	35	112	
	Chi square = 7.82786 (d.f. = 6) Significance = .2510 Missing = 11					
63	Leadership	3	4	4	11	
	Supervisory	15	7	12	34	
	Administrative	35	10	9	54	
	Policy	5	4	0	9	
	Total	58	25	25	108	
	Chi square = 12.50943 (d.f. = 6) Significance = .0515 Missing = 15					
64	Leadership	6	1	4	11	1.81
	Supervisory	10	8	15	33	2.15
	Administrative	29	17	9	55	1.63
	Policy	4	4	1	9	1.66
	Total	49	30	29	108	1.81
	Chi square = 12.84583* (d.f. = 6) Significance = .0456 Missing = 15					
65	Leadership	3	2	7	12	
	Supervisory	10	10	14	34	
	Administrative	26	15	14	55	
	Policy	4	5	0	9	
	Total	43	32	35	110	
	Chi square = 12.45042 (d.f. = 6) Significance = .0526 Missing = 13					

Table 22. Entry level competency need by years of experience with the agency

Item number	Years with agency	Competency need			Total	Mean scores
		Little	Moderate	High		
1	3 or less	4	9	36	49	2.56
	4-9	2	5	36	43	2.79
	10-14	0	2	7	9	
	15 or more	4	5	6	15	2.13
	Total	10	21	85	116	2.64
Chi square = 13.17638* (d.f. = 6) Significance = .0403						
Missing = 7						
2	3 or less	0	6	44	50	
	4-9	1	7	36	44	
	10-14	0	2	8	10	
	15 or more	0	3	14	17	
	Total	1	18	102	121	
Chi square = 2.46676 (d.f. = 6) Significance = .8772						
Missing = 2						
3	3 or less	5	8	36	49	2.63
	4-9	0	13	29	42	2.69
	10-14	0	5	6	11	2.09
	15 or more	3	2	12	17	2.52
	Total	8	28	83	119	2.63
Chi square = 13.24205* (d.f. = 6) Significance .0393						
Missing = 4						
4	3 or less	2	23	24	49	
	4-9	0	14	28	42	
	10-14	0	7	4	11	
	15 or more	1	5	11	17	
	Total	3	49	67	119	
Chi square = 7.77096 (d.f. = 6) Significance = .2554						
Missing = 4						
5	3 or less	4	17	27	48	
	4-9	2	7	33	42	
	10-14	1	3	6	10	
	15 or more	2	5	9	16	
	Total	9	32	75	116	
Chi square = 6.00702 (d.f. = 6) Significance = .4224						
Missing = 7						

*Significant at the $P \leq .05$ level.

Table 22 (Continued)

Item number	Years with agency	Competency need			Total	Mean scores
		Little	Moderate	High		
6	3 or less	17	12	18	47	
	4-9	12	9	18	39	
	10-14	5	2	3	10	
	15 or more	6	4	4	14	
	Total	40	27	43	110	
	Chi square = 2.35235 (d.f. = 6) Significance = .8846					
	Missing = 13					
7	3 or less	18	11	19	48	
	4-9	16	7	17	40	
	10-14	3	4	3	10	
	15 or more	5	4	7	16	
	Total	42	26	46	114	
	Chi square = 2.56495 (d.f. = 6) Significance = .8611					
	Missing = 9					
8	3 or less	10	15	23	48	
	4-9	6	11	23	40	
	10-14	3	3	5	11	
	15 or more	2	3	11	16	
	Total	21	32	62	115	
	Chi square = 3.08036 (d.f. = 6) Significance = .7987					
	Missing = 8					
9	3 or less	19	16	11	46	
	4-9	22	11	7	40	
	10-14	3	5	2	10	
	15 or more	4	7	3	14	
	Total	48	39	23	110	
	Chi square = 4.97382 (d.f. = 6) Significance = .5472					
	Missing = 13					
10	3 or less	30	11	5	46	
	4-9	32	4	4	40	
	10-14	5	2	2	9	
	15 or more	11	2	1	14	
	Total	78	19	12	109	
	Chi square = 4.90480 (d.f. = 6) Significance = .5561					
	Missing = 14					

Table 22 (Continued)

Item number	Years with agency	Competency need			Total	Mean scores
		Little	Moderate	High		
11	3 or less	18	14	15	47	
	4-9	17	12	11	40	
	10-14	3	3	3	9	
	15 or more	5	5	5	15	
	Total	43	34	34	111	
	Chi square = .61332 (d.f. = 6) Significance = .9962					
	Missing = 12					
12	3 or less	9	23	15	47	
	4-9	9	17	16	42	
	10-14	1	4	3	8	
	15 or more	4	7	3	14	
	Total	23	51	37	111	
	Chi square = 2.13817 (d.f. = 6) Significance = .9066					
	Missing = 12					
13	3 or less	11	9	28	48	
	4-9	5	8	28	41	
	10-14	1	3	7	11	
	15 or more	1	4	11	16	
	Total	18	24	74	116	
	Chi square = 4.0678 (d.f. = 6) Significance = .6674					
	Missing = 7					
14	3 or less	12	10	25	47	
	4-9	8	13	10	41	
	10-14	0	6	5	11	
	15 or more	4	5	7	16	
	Total	24	34	57	115	
	Chi square = 6.72147 (d.f. = 6) Significance = .3474					
	Missing = 8					
15	3 or less	20	14	12	46	
	4-9	18	11	11	40	
	10-14	5	1	4	10	
	15 or more	6	5	4	15	
	Total	49	31	31	111	
	Chi square = 2.15003 (d.f. = 6) Significance = .9054					
	Missing = 12					

Table 22 (Continued)

Item number	Years with agency	Competency need			Total	Mean scores
		Little	Moderate	High		
21	3 or less	21	14	13	48	
	4-9	16	9	16	41	
	10-14	3	4	3	10	
	15 or more	6	4	4	14	
	Total	46	31	36	113	
	Chi square = 2.58192 (d.f. = 6) Significance = .8592					
	Missing = 10					
22	3 or less	20	18	11	49	
	4-9	10	13	18	41	
	10-14	4	4	3	11	
	15 or more	5	3	8	16	
	Total	39	38	40	117	
	Chi square = 7.54918 (d.f. = 6) Significance = .2750					
	Missing = 6					
23	3 or less	10	17	22	49	
	4-9	7	13	21	41	
	10-14	2	6	2	10	
	15 or more	4	4	8	16	
	Total	23	40	53	116	
	Chi square = 4.56962 (d.f. = 6) Significance = .6001					
	Missing = 7					
24	3 or less	20	15	11	46	
	4-9	15	17	8	40	
	10-14	2	5	2	9	
	15 or more	3	7	5	15	
	Total	40	44	26	110	
	Chi square = 4.48550 (d.f. = 6) Significance = .5113					
	Missing = 13					
25	3 or less	31	11	4	46	
	4-9	18	17	5	40	
	10-14	4	3	3	10	
	15 or more	5	7	2	14	
	Total	58	38	14	110	
	Chi square = 9.63038 (d.f. = 6) Significance = .1411					
	Missing = 13					

Table 22 (Continued)

Item number	Years with agency	Competency need			Total	Mean scores
		Little	Moderate	High		
26	3 or less	23	14	10	47	
	4-9	22	5	13	40	
	10-14	4	4	2	10	
	15 or more	7	4	4	15	
	Total	56	27	29	112	
	Chi square = 5.59573 (d.f. = 6) Significance = .4700					
	Missing = 11					
27	3 or less	8	18	21	47	
	4-9	9	14	18	41	
	10-14	1	4	3	8	
	15 or more	2	7	6	15	
	Total	20	43	48	111	
	Chi square = 1.55075 (d.f. = 6) Significance = .9561					
	Missing = 12					
28	3 or less	2	15	30	47	
	4-9	3	14	25	42	
	10-14	2	2	5	9	
	15 or more	2	8	7	17	
	Total	14	41	60	115	
	Chi square = 11.39537 (d.f. = 6) Significance = .5769					
	Missing = 8					
29	3 or less	2	15	30	47	
	4-9	3	14	25	42	
	10-14	0	4	4	8	
	15 or more	2	5	10	17	
	Total	7	38	69	114	
	Chi square = 2.7253 (d.f. = 6) Significance = .8422					
	Missing = 9					
30	3 or less	4	17	26	47	
	4-9	7	16	19	42	
	10-14	0	3	5	8	
	15 or more	3	7	6	16	
	Total	14	43	56	113	
	Chi square = 4.09821 (d.f. = 6) Significance = .6634					
	Missing = 10					

Table 22 (Continued)

Item number	Years with agency	Competency need			Total	Mean scores
		Little	Moderate	High		
36	3 or less	15	18	13	46	
	4-9	13	17	12	42	
	10-14	1	5	2	8	
	15 or more	8	4	3	15	
	Total	37	44	30	111	
	Chi square = 4.97150 (d.f. = 6) Significance = .5475					
	Missing = 12					
37	3 or less	11	18	19	48	
	4-9	12	17	13	42	
	10-14	1	5	2	8	
	15 or less	9	3	3	15	
	Total	33	43	37	113	
	Chi square = 10.51839 (d.f. = 6) Significance = .1045					
	Missing = 10					
38	3 or less	12	20	14	46	
	4-9	17	15	10	42	
	10-14	1	6	1	8	
	15 or more	8	5	2	15	
	Total	38	46	27	111	
	Chi square = 8.77797 (d.f. = 6) Significance = .1865					
	Missing = 12					
39	3 or less	12	22	12	46	
	4-9	20	14	7	41	
	10-14	1	6	1	8	
	15 or more	8	4	3	15	
	Total	41	46	25	110	
	Chi square = 10.41484 (d.f. = 6) Significance = .1082					
	Missing = 13					
40	3 or less	18	17	10	45	
	4-9	18	14	9	41	
	10-14	2	5	1	8	
	15 or more	5	5	6	16	
	Total	43	41	26	110	
	Chi square = 4.35071 (d.f. = 6) Significance = .6293					
	Missing = 13					

Table 22 (Continued)

Item number	Years with agency	Competency need			Total	Mean scores
		Little	Moderate	High		
41	3 or less	5	17	25	47	2.42
	4-9	7	11	24	42	2.40
	10-14	0	5	3	8	2.37
	15 or more	6	6	3	15	1.80
	Total	18	39	55	112	2.33
	Chi square = 13.82024* (d.f. = 6) Significance = .0317					
	Missing = 11					
42	3 or less	13	22	11	46	
	4-9	16	17	9	42	
	10-14	4	4	0	8	
	15 or more	8	4	3	15	
	Total	41	47	23	111	
	Chi square = 5.65438 (d.f. = 6) Significance = .4630					
	Missing = 12					
43	3 or less	21	18	6	45	
	4-9	20	10	10	40	
	10-14	3	4	1	8	
	15 or more	6	5	5	16	
	Total	50	37	22	109	
	Chi square = 5.30290 (d.f. = 6) Significance = .5056					
	Missing = 14					
44	3 or less	6	16	25	47	
	4-9	7	16	19	42	
	10-14	1	5	3	9	
	15 or more	5	7	4	16	
	Total	19	44	51	114	
	Chi square = 6.08156 (d.f. = 6) Significance = .4141					
	Missing = 9					
45	3 or less	5	13	29	47	
	4-9	7	16	20	43	
	10-14	0	6	3	9	
	15 or more	5	6	5	16	
	Total	17	41	57	115	
	Chi square = 11.23060 (d.f. = 6) Significance = .0815					
	Missing = 8					

Table 22 (Continued)

Item number	Years with agency	Competency need			Total	Mean scores
		Little	Moderate	High		
46	3 or less	23	15	8	46	
	4-9	12	15	14	41	
	10-14	3	5	2	10	
	15 or more	7	2	7	16	
	Total	45	37	31	113	
	Chi square = 9.86312 (d.f. = 6) Significance = .1305					
	Missing = 10					
47	3 or less	30	10	9	49	
	4-9	14	11	16	41	
	10-14	5	3	3	11	
	15 or more	7	1	8	16	
	Total	56	25	36	117	
	Chi square = 11.31779 (d.f. = 6) Significance = .0790					
	Missing = 6					
48	3 or less	14	18	14	46	
	4-9	9	15	18	42	
	10-14	4	4	1	9	
	15 or more	6	4	5	15	
	Total	33	41	38	112	
	Chi square = 5.36573 (d.f. = 6) Significance = .4978					
	Missing = 11					
49	3 or less	18	9	20	47	
	4-9	13	11	17	41	
	10-14	4	4	3	11	
	15 or more	8	1	6	15	
	Total	43	25	46	114	
	Chi square = 5.16073 (d.f. = 6) Significance = .5234					
	Missing = 9					
50	3 or less	19	7	20	46	
	4-9	15	5	21	41	
	10-14	4	4	0	8	
	15 or more	6	4	5	15	
	Total	44	20	46	110	
	Chi square = 10.91866 (d.f. = 6) Significance = .0909					
	Missing = 13					

Table 22 (Continued)

Item number	Years with agency	Competency need			Total	Mean scores
		Little	Moderate	High		
56	3 or less	23	6	16	45	1.84
	4-9	20	10	11	41	1.78
	10-14	6	1	1	8	1.37
	15 or more	13	0	1	14	1.14
	Total	62	17	29	108	1.69
Chi square = 12.61819* (d.f. = 6) Significance = .0495						
Missing = 15						
57	3 or less	28	7	11	46	
	4-9	21	11	8	40	
	10-14	6	2	0	8	
	15 or more	13	0	2	15	
	Total	68	20	21	109	
Chi square = 9.62393 (d.f. = 6) Significance = .1414						
Missing = 14						
58	3 or less	28	8	9	45	
	4-9	21	13	6	40	
	10-14	6	2	0	8	
	15 or more	13	0	1	14	
	Total	68	23	16	107	
Chi square = 10.97003 (d.f. = 6) Significance = .0893						
Missing = 16						
59	3 or less	15	12	18	45	2.06
	4-9	12	15	13	40	2.02
	10-14	4	4	0	8	1.50
	15 or more	11	2	3	16	1.50
	Total	42	33	34	109	1.92
Chi square = 13.1458* (d.f. = 6) Significance = .0408						
Missing = 14						
60	3 or less	18	9	18	45	2.00
	4-9	15	13	14	42	1.97
	10-14	4	4	0	8	1.50
	15 or more	12	0	2	14	1.28
	Total	49	26	34	109	1.86
Chi square = 18.02158* (d.f. = 6) Significance = .0062						
Missing = 14						

Table 22 (Continued)

Item number	Years with agency	Competency need			Total	Mean scores
		Little	Moderate	High		
61	3 or more	23	9	13	45	
	4-9	17	14	10	41	
	10-14	4	2	1	8	
	15 or more	11	2	1	14	
	Total	55	38	15	108	
	Chi square = 8.25594 (d.f. = 6) Significance = .2199 Missing = 15					
62	3 or more	20	11	16	47	
	4-9	16	11	15	42	
	10-14	4	3	1	8	
	15 or more	9	3	3	15	
	Total	49	28	35	112	
	Chi square = 3.91347 (d.f. = 6) Significance = .6883 Missing = 11					
63	3 or less	24	8	13	45	1.75
	4-9	18	12	11	41	1.82
	10-14	3	5	0	8	1.62
	15 or more	13	0	1	14	1.14
	Total	58	25	25	108	1.69
	Chi square = 19.22052* (d.f. = 6) Significance = .0038 Missing = 15					
64	3 or less	21	11	13	45	
	4-9	14	13	13	40	
	10-14	4	4	0	8	
	15 or more	10	2	3	15	
	Total	49	30	29	108	
	Chi square = 8.50721 (d.f. = 6) Significance = .2032 Missing = 15					
65	3 or less	16	12	17	45	
	4-9	13	15	14	42	
	10-14	3	3	2	8	
	15 or more	11	2	2	15	
	Total	43	32	35	110	
	Chi square = 9.81934 (d.f. = 6) Significance = .1325 Missing = 13					

Table 23. Entry level competency need by level of formal education

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
1	High school	2	2	7	11	
	Associate	1	2	4	7	
	Bachelor	7	13	50	70	
	Graduate	0	4	24	28	
	Total	10	21	85	116	
	Chi square = 5.66488 (d.f. = 6) Significance = .4618					
	Missing = 7					
2	High school	0	3	12	15	
	Associate	0	1	7	8	
	Bachelor	0	10	61	71	
	Graduate	1	4	22	27	
	Total	1	18	102	121	
	Chi square = 3.85659 (d.f. = 6) Significance = .6907					
	Missing = 2					
3	High school	0	4	11	15	
	Associate	0	1	6	7	
	Bachelor	6	17	46	69	
	Graduate	2	6	20	28	
	Total	8	28	83	119	
	Chi square = 2.68010 (d.f. = 6) Significance = .8478					
	Missing = 4					
4	High school	0	4	11	15	
	Associate	0	1	7	8	
	Bachelor	3	32	34	69	
	Graduate	0	12	15	27	
	Total	3	49	69	119	
	Chi square = 7.82527 (d.f. = 6) Significance = .2512					
	Missing = 4					
5	High school	0	3	10	13	
	Associate	0	2	4	6	
	Bachelor	5	19	46	70	
	Graduate	4	8	15	27	
	Total	9	32	75	116	
	Chi square = 4.11884 (d.f. = 6) Significance = .6606					
	Missing = 7					

Table 23 (Continued)

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
6	High school	1	4	6	11	
	Associate	1	1	5	7	
	Bachelor	25	15	25	64	
	Graduate	13	7	8	28	
	Total	40	27	43	110	
Chi square = 8.43575 (d.f. = 6) Significance = .2079						
Missing = 13						
7	High school	0	4	8	12	2.66
	Associate	1	1	5	7	2.57
	Bachelor	30	13	24	67	1.91
	Graduate	11	8	9	28	1.92
	Total	42	26	46	114	2.03
Chi square = 12.67533* (d.f. = 6) Significance = .0485						
Missing = 9						
8	High school	0	3	11	14	
	Associate	0	1	6	7	
	Bachelor	16	18	32	66	
	Graduate	5	10	13	28	
	Total	21	32	62	115	
Chi square = 9.97461 (d.f. = 6) Significance = .1257						
Missing = 8						
9	High school	4	6	2	12	
	Associate	1	2	2	5	
	Bachelor	30	24	11	65	
	Graduate	13	7	8	28	
	Total	48	39	23	110	
Chi square = 4.97941 (d.f. = 6) Significance = .5465						
Missing = 13						
10	High school	8	2	1	11	
	Associate	3	2	0	5	
	Bachelor	47	12	6	65	
	Graduate	20	3	5	28	
	Total	78	19	12	109	
Chi square = 4.29615 (d.f. = 6) Significance = .6367						
Missing = 14						

*Significant at the $P \leq .05$ level.

Table 23 (Continued)

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
11	High school	3	4	5	12	
	Associate	2	1	4	7	
	Bachelor	28	21	16	65	
	Graduate	10	8	9	27	
	Total	43	34	34	111	
	Chi square = 4.73080 (d.f. = 6) Significance = .5788 Missing = 12					
12	High school	2	6	3	11	
	Associate	0	3	2	5	
	Bachelor	16	30	21	67	
	Graduate	5	12	11	28	
	Total	23	51	37	111	
	Chi square = 2.53911 (d.f. = 6) Significance = .8641 Missing = 12					
13	High school	0	3	10	13	
	Associate	0	0	7	7	
	Bachelor	14	14	41	69	
	Graduate	4	7	16	27	
	Total	18	24	74	116	
	Chi square = 8.05573 (d.f. = 6) Significance = .2340 Missing = 7					
14	High school	1	6	7	14	
	Associate	1	0	6	7	
	Bachelor	17	18	32	67	
	Graduate	5	10	12	27	
	Total	24	34	57	115	
	Chi square = 7.74608 (d.f. = 6) Significance = .2573 Missing = 8					
15	High school	3	5	4	12	
	Associate	0	2	4	6	
	Bachelor	34	17	14	65	
	Graduate	12	7	9	28	
	Total	49	31	31	111	
	Chi square = 10.14762 (d.f. = 6) Significance = .1186 Missing = 12					

Table 23 (Continued)

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
16	High school	0	2	10	12	
	Associate	0	3	4	7	
	Bachelor	6	15	48	69	
	Graduate	0	9	19	28	
	Total	6	29	81	116	
	Chi square = 6.66906 (d.f. = 6) Significance = .3525					
Missing = 7						
17	High school	4	5	2	11	
	Associate	0	4	3	7	
	Bachelor	33	23	9	65	
	Graduate	14	7	6	27	
	Total	51	39	20	110	
	Chi square = 9.11932 (d.f. = 6) Significance = .1670					
Missing = 13						
18	High school	2	2	8	12	
	Associate	0	1	6	7	
	Bachelor	14	19	35	68	
	Graduate	4	11	12	27	
	Total	20	33	61	114	
	Chi square = 6.68575 (d.f. = 6) Significance = .3824					
Missing = 9						
19	High school	0	3	11	14	
	Associate	0	0	8	8	
	Bachelor	5	14	51	70	
	Graduate	0	5	23	28	
	Total	5	22	93	120	
	Chi square = 6.01801 (d.f. = 6) Significance = .4212					
Missing = 3						
20	High school	0	4	8	12	
	Associate	0	2	4	6	
	Bachelor	11	20	34	70	
	Graduate	2	11	15	28	
	Total	13	37	66	116	
	Chi square = 4.80608 (d.f. = 6) Significance = .5689					
Missing = 7						

Table 23 (Continued)

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
21	High school	4	4	4	12	
	Associate	0	2	6	8	
	Bachelor	32	17	17	66	
	Graduate	10	8	9	27	
	Total	46	31	36	113	
	Chi square = 10.24284 (d.f. = 6) Significance = .1148					
	Missing = 10					
22	High school	4	4	7	15	
	Associate	0	2	6	8	
	Bachelor	26	22	19	67	
	Graduate	9	10	8	27	
	Total	39	38	40	117	
	Chi square = 9.34870 (d.f. = 6) Significance = .1549					
	Missing = 6					
23	High school	0	5	8	13	
	Associate	1	1	6	8	
	Bachelor	16	23	29	67	
	Graduate	6	11	10	27	
	Total	23	40	53	116	
	Chi square = 7.63741 (d.f. = 6) Significance = .2659					
	Missing = 7					
24	High school	2	6	4	12	
	Associate	1	1	3	5	
	Bachelor	30	23	12	65	
	Graduate	7	14	7	28	
	Total	40	44	26	110	
	Chi square = 10.23528 (d.f. = 6) Significance = .1151					
	Missing = 13					
25	High school	4	4	3	11	1.90
	Associate	1	2	3	6	2.33
	Bachelor	41	20	4	65	1.43
	Graduate	12	12	4	28	1.71
	Total	58	38	14	110	1.60
	Chi square = 15.35563* (d.f. = 6) Significance = .0177					
	Missing = 13					

Table 23 (Continued)

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
26	High school	6	3	4	13	
	Associate	1	1	4	6	
	Bachelor	35	17	13	65	
	Graduate	14	6	8	28	
	Total	56	27	29	112	
	Chi square = 6.82502 (d.f. = 6) Significance = .3373					
Missing = 11						
27	High school	3	4	4	11	
	Associate	1	1	3	5	
	Bachelor	15	26	26	67	
	Graduate	1	12	15	26	
	Total	20	43	48	111	
	Chi square = 6.51990 (d.f. = 6) Significance = .3675					
Missing = 12						
28	High school	2	6	5	13	
	Associate	0	3	3	6	
	Bachelor	12	20	36	68	
	Graduate	0	12	16	28	
	Total	14	41	60	115	
	Chi square = 8.43558 (d.f. = 6) Significance = .2079					
Missing = 8						
29	High school	2	3	8	13	
	Associate	0	1	5	6	
	Bachelor	3	26	39	68	
	Graduate	2	8	17	27	
	Total	7	38	69	114	
	Chi square = 4.74817 (d.f. = 6) Significance = .5765					
Missing = 9						
30	High school	2	5	5	12	
	Associate	1	3	2	6	
	Bachelor	8	24	36	68	
	Graduate	3	11	13	27	
	Total	14	43	56	113	
	Chi square = 1.41371 (d.f. = 6) Significance = .9650					
Missing = 10						

Table 23 (Continued)

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
31	High school	5	1	5	11	
	Associate	2	1	3	6	
	Bachelor	15	16	39	70	
	Graduate	4	7	16	27	
	Total	26	25	63	114	
	Chi square = 5.00865 (d.f. = 6) Significance = .5427 Missing = 9					
32	High school	6	4	1	11	
	Associate	3	0	2	5	
	Bachelor	23	25	19	67	
	Graduate	12	6	9	27	
	Total	44	35	31	110	
	Chi square = 6.75893 (d.f. = 6) Significance = .3437 Missing = 13					
33	High school	0	2	11	13	
	Associate	0	0	6	6	
	Bachelor	6	19	44	69	
	Graduate	0	5	22	27	
	Total	6	26	83	115	
	Chi square = 8.51949 (d.f. = 6) Significance = .2025 Missing = 8					
34	High school	3	4	5	12	
	Associate	0	1	5	6	
	Bachelor	11	19	36	66	
	Graduate	4	8	15	27	
	Total	18	32	61	111	
	Chi square = 3.25186 (d.f. = 6) Significance = .7766 Missing = 12					
35	High school	5	4	3	12	
	Associate	2	0	3	5	
	Bachelor	31	25	10	66	
	Graduate	11	7	10	28	
	Total	49	36	26	111	
	Chi square = 9.61272 (d.f. = 6) Significance = .1419 Missing = 12					

Table 23 (Continued)

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
36	High school	6	4	1	11	
	Associate	3	1	1	5	
	Bachelor	18	29	21	68	
	Graduate	10	10	7	27	
	Total	37	14	30	111	
	Chi square = 6.12778 (d.f. = 6) Significance = .4090					
Missing = 12						
37	High school	7	2	2	11	
	Associate	3	1	3	7	
	Bachelor	13	31	24	68	
	Graduate	10	9	8	27	
	Total	33	43	37	113	
	Chi square = 12.24799 (d.f. = 6) Significance = .0546					
Missing = 10						
38	High school	6	4	1	11	
	Associate	4	1	0	5	
	Bachelor	16	31	21	68	
	Graduate	12	10	5	27	
	Total	38	46	27	111	
	Chi square = 12.35678 (d.f. = 6) Significance = .0545					
Missing = 12						
39	High school	6	3	2	11	
	Associate	4	0	1	5	
	Bachelor	22	31	14	67	
	Graduate	9	12	6	27	
	Total	41	46	23	110	
	Chi square = 6.86845 (d.f. = 6) Significance = .3322					
Missing = 13						
40	High school	4	6	2	12	
	Associate	3	0	2	5	
	Bachelor	28	25	13	66	
	Graduate	8	10	9	27	
	Total	43	41	26	110	
	Chi square = 6.17940 (d.f. = 6) Significance = .4034					
Missing = 13						

Table 23 (Continued)

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
41	High school	2	4	5	11	
	Associate	2	2	1	5	
	Bachelor	10	23	36	69	
	Graduate	4	10	13	27	
	Total	18	39	55	112	
	Chi square = 3.10304 (d.f. = 6) Significance = .7958					
	Missing = 11					
42	High school	6	4	1	11	
	Associate	3	2	1	6	
	Bachelor	22	29	16	67	
	Graduate	10	12	5	27	
	Total	41	47	23	111	
	Chi square = 2.90744 (d.f. = 6) Significance = .8204					
	Missing = 12					
43	High school	7	3	2	12	
	Associate	3	1	1	5	
	Bachelor	32	21	12	65	
	Graduate	8	12	7	27	
	Total	50	37	22	109	
	Chi square = 4.44415 (d.f. = 6) Significance = .6168					
	Missing = 14					
44	High school	2	8	2	12	2.00
	Associate	2	1	2	5	2.00
	Bachelor	13	19	38	70	2.35
	Graduate	2	16	9	27	2.25
	Total	19	44	51	114	2.28
	Chi square = 15.78844* (d.f. = 6) Significance = .0149					
	Missing = 9					
45	High school	2	4	6	12	
	Associate	1	3	3	7	
	Bachelor	11	25	33	69	
	Graduate	3	9	15	27	
	Total	17	41	57	115	
	Chi square = .80777 (d.f. = 6) Significance = .9919					
	Missing = 8					

Table 23 (Continued)

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
46	High school	6	5	4	15	
	Associate	1	1	4	6	
	Bachelor	28	19	18	65	
	Graduate	10	12	5	27	
	Total	45	37	31	113	
	Chi square = 7.03607 (d.f. = 6) Significance = .3175					
	Missing = 10					
47	High school	4	4	7	15	
	Associate	1	2	4	7	
	Bachelor	37	13	17	67	
	Graduate	14	6	8	28	
	Total	56	25	36	117	
	Chi square = 7.82273 (d.f. = 6) Significance = .2514					
	Missing = 6					
48	High school	4	3	4	11	
	Associate	2	1	2	5	
	Bachelor	18	26	24	68	
	Graduate	9	11	8	28	
	Total	33	41	38	112	
	Chi square = 1.73149 (d.f. = 6) Significance = .9427					
	Missing = 11					
49	High school	6	3	5	14	
	Associate	1	1	4	6	
	Bachelor	28	13	26	67	
	Graduate	8	8	11	27	
	Total	43	25	46	114	
	Chi square = 3.71332 (d.f. = 6) Significance = .7154					
	Missing = 9					
50	High school	6	1	4	11	
	Associate	2	1	2	5	
	Bachelor	28	10	29	67	
	Graduate	8	8	11	27	
	Total	44	20	46	110	
	Chi square = 4.33158 (d.f. = 6) Significance = .6319					
	Missing = 13					

Table 23 (Continued)

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
51	High school	8	4	0	12	
	Associate	3	1	2	6	
	Bachelor	45	15	4	64	
	Graduate	19	5	3	27	
	Total	75	25	9	109	
	Chi square = 7.39114 (d.f. = 6) Significance = .2962 Missing = 14					
52	High school	5	7	3	15	1.86
	Associate	1	1	5	7	2.57
	Bachelor	42	10	14	66	1.57
	Graduate	17	6	4	27	2.52
	Total	65	24	26	115	1.66
	Chi square = 18.61859* (d.f. = 6) Significance = .0049 Missing = 8					
53	High school	6	5	4	15	1.86
	Associate	2	0	5	7	2.42
	Bachelor	38	14	14	66	1.63
	Graduate	19	5	3	27	1.40
	Total	65	28	26	115	1.73
	Chi square = 14.39788* (d.f. = 6) Significance = .0255 Missing = 8					
54	High school	7	2	4	13	1.76
	Associate	1	1	6	8	2.62
	Bachelor	40	14	12	66	1.57
	Graduate	15	6	6	27	1.66
	Total	63	23	28	114	1.74
	Chi square = 13.11013* (d.f. = 6) Significance = .0413 Missing = 9					
55	High school	6	5	1	12	1.58
	Associate	2	0	4	6	2.33
	Bachelor	43	16	6	65	1.43
	Graduate	12	9	7	28	1.82
	Total	63	30	18	111	1.59
	Chi square = 18.79051* (d.f. = 6) Significance = .0045 Missing = 12					

Table 23 (Continued)

Item number	Education level	Competency need			Total	Mean scores
		Little	Moderate	High		
61	High school	6	2	3	11	
	Associate	2	2	2	6	
	Bachelor	32	18	14	64	
	Graduate	15	6	6	27	
	Total	55	28	25	108	
	Chi square = 1.56557 (d.f. = 6) Significance = .9550					
	Missing = 15					
62	High school	6	3	2	11	
	Associate	2	1	3	6	
	Bachelor	27	18	23	68	
	Graduate	14	6	7	27	
	Total	49	28	35	112	
	Chi square = 3.09783 (d.f. = 6) Significance = .7965					
	Missing = 11					
63	High school	6	2	3	11	
	Associate	3	0	2	5	
	Bachelor	34	15	16	65	
	Graduate	15	8	4	27	
	Total	58	25	25	108	
	Chi square = 3.40864 (d.f. = 6) Significance = .7561					
	Missing = 15					
64	High school	6	2	3	11	
	Associate	1	0	4	5	
	Bachelor	29	17	19	65	
	Graduate	13	11	3	27	
	Total	49	30	29	108	
	Chi square = 12.30503 (d.f. = 6) Significance = .0555					
	Missing = 15					
65	High school	5	2	4	11	
	Associate	2	2	2	6	
	Bachelor	28	14	24	66	
	Graduate	8	14	5	27	
	Total	43	32	35	110	
	Chi square = 9.67971 (d.f. = 6) Significance = .1388					
	Missing = 13					

Table 24. Entry level competency need by salary level of entry level employee

Item number	Salary level (x \$100.)	Competency need			Total	Mean scores
		Little	Moderate	High		
1	60 or less	1	5	11	17	
	61-75	1	7	32	40	
	76-90	4	6	26	36	
	91 or more	4	3	16	23	
	Total	10	21	85	116	
	Chi square = 6.23856 (d.f. = 6) Significance = .3970 Missing = 7					
2	60 or less	0	2	15	17	
	61-75	0	8	33	41	
	76-90	1	7	29	37	
	91 or more	0	1	25	26	
	Total	1	18	102	121	
	Chi square = 6.19536 (d.f. = 6) Significance = .4017 Missing = 2					
3	60 or less	0	3	13	16	
	61-75	7	9	25	41	
	76-90	0	9	28	37	
	91 or more	1	7	17	25	
	Total	8	28	83	119	
	Chi square = 11.74665 (d.f. = 6) Significance = .0679 Missing = 4					
4	60 or less	0	6	10	16	
	61-75	3	21	17	41	
	76-90	0	15	22	37	
	91 or more	0	7	18	25	
	Total	3	49	67	119	
	Chi square = 10.69419 (d.f. = 6) Significance = .0983 Missing = 4					
5	60 or less	2	5	10	17	
	61-75	6	10	24	40	
	76-90	1	12	23	36	
	91 or more	0	5	18	23	
	Total	9	32	75	116	
	Chi square = 7.70957 (d.f. = 6) Significance = .2602 Missing = 7					

Table 24 (Continued)

Item number	Salary level (x \$100.)	Competency need			Total	Mean scores
		Little	Moderate	High		
6	60 or less	5	3	4	12	
	61-75	21	8	11	40	
	76-90	9	12	15	36	
	91 or more	5	4	13	22	
	Total	40	27	43	110	
Chi square = 10.98250 (d.f. = 6) Significance = .889						
Missing = 13						
7	60 or less	8	1	4	13	1.69
	61-75	21	9	12	42	1.78
	76-90	9	9	18	36	2.25
	91 or more	4	7	12	23	2.34
	Total	42	26	46	114	2.03
Chi square = 13.22529* (d.f. = 6) Significance = .03964						
Missing = 9						
8	60 or less	3	6	3	12	2.00
	61-75	10	15	17	42	2.16
	76-90	5	7	25	37	2.54
	91 or more	3	4	17	24	2.58
	Total	21	32	62	115	2.35
Chi square = 12.90926* (d.f. = 6) Significance = .0445						
Missing = 8						
9	60 or less	9	2	1	12	1.33
	61-75	22	13	5	40	1.57
	76-90	11	16	9	36	1.94
	91 or more	6	8	8	22	2.09
	Total	48	39	23	110	1.77
Chi square = 13.83100* (d.f. = 6) Significance = .0316						
Missing = 13						
10	60 or less	10	1	1	12	
	61-75	32	5	3	40	
	76-90	21	11	3	35	
	91 or more	15	2	5	22	
	Total	78	19	12	109	
Chi square = 10.71743 (d.f. = 6) Significance = .0975						
Missing = 14						

*Significant at the $P \leq .05$ level.

Table 24 (Continued)

Item number	Salary level (x \$100.)	Competency need			Total	Mean scores
		Little	Moderate	High		
11	60 or less	7	4	1	12	1.50
	61-75	21	9	11	41	1.75
	76-90	11	14	10	35	1.97
	91 or more	4	7	12	23	2.34
	Total	43	34	34	111	1.91
	Chi square = 13.74131* (d.f. = 6) Significance .0327					
	Missing = 12					
12	60 or less	0	4	10	14	2.71
	61-75	9	19	12	40	2.07
	76-90	8	20	8	36	2.00
	91 or more	6	8	7	21	2.04
	Total	23	51	37	110	2.12
	Chi square = 13.13384* (d.f. = 6) Significance .0410					
	Missing = 12					
13	60 or less	5	4	5	14	2.00
	61-75	8	7	26	41	2.43
	76-90	5	11	21	37	2.43
	91 or more	0	2	22	24	2.91
	Total	18	24	74	116	2.48
	Chi square = 16.77530* (d.f. = 6) Significance = .0101					
	Missing = 7					
14	60 or less	5	4	4	13	
	61-75	10	15	17	42	
	76-90	7	12	18	37	
	91 or more	2	3	18	23	
	Total	24	34	57	115	
	Chi square = 12.02639 (d.f. = 6) Significance = .0614					
	Missing = 8					
15	60 or less	6	3	3	12	1.75
	61-75	26	7	9	42	1.59
	76-90	12	15	8	35	2.14
	91 or more	5	6	11	22	2.27
	Total	49	31	31	111	1.83
	Chi square = 15.72349* (d.f. = 6) Significance = .0153					
	Missing = 12					

Table 24 (Continued)

Item number	Salary level (x \$100.)	Competency need			Total	Mean scores
		Little	Moderate	High		
16	60 or less	2	4	9	15	
	61-75	2	12	28	42	
	76-90	2	8	26	36	
	91 or more	0	5	18	23	
	Total	6	29	81	116	
	Chi square = 4.11625 (d.f. = 6) Significance = .6609 Missing = 7					
17	60 or less	8	3	1	12	
	61-75	22	12	7	41	
	76-90	15	13	7	35	
	91 or more	6	11	5	22	
	Total	51	39	20	110	
	Chi square = 6.49467 (d.f. = 6) Significance = .3701 Missing = 13					
18	60 or less	3	5	8	16	
	61-75	8	10	23	41	
	76-90	6	13	16	35	
	91 or more	3	5	14	22	
	Total	20	33	61	114	
	Chi square = 2.63533 (d.f. = 6) Significance = .8530 Missing = 9					
19	60 or less	1	3	11	15	
	61-75	3	9	30	42	
	76-90	0	9	28	37	
	91 or more	1	1	24	26	
	Total	5	22	93	120	
	Chi square = 7.59383 (d.f. = 6) Significance = .2694 Missing = 3					
20	60 or less	1	6	8	15	2.46
	61-75	10	17	14	41	2.09
	76-90	2	13	22	37	2.54
	91 or more	0	1	22	23	2.95
	Total	13	37	66	116	2.45
	Chi square = 27.28012** (d.f. = 6) Significance = .0001 Missing = 7					

**Significant at the $P \leq .001$ level.

Table 24 (Continued)

Item number	Salary level (x \$100.)	Competency need			Total	Men scores
		Little	Moderate	High		
21	60 or less	8	1	3	12	1.58
	61-75	25	9	7	41	1.56
	76-90	9	15	12	36	2.08
	91 or more	4	6	14	24	2.41
	Total	46	31	36	113	1.91
	Chi square = 24.76376** (d.f. = 6) Significance = .0004					
	Missing = 10					
22	60 or less	5	7	1	13	1.69
	61-75	27	5	10	42	1.59
	76-90	5	18	14	37	2.24
	91 or more	2	8	15	25	2.52
	Total	39	38	40	117	2.00
	Chi square = 40.63817** (d.f. = 6) Significance = .0001					
	Missing = 6					
23	60 or less	4	6	4	14	
	61-75	12	15	15	42	
	76-90	6	11	19	36	
	91 or more	1	8	15	24	
	Total	23	40	53	116	
	Chi square = 9.47580 (d.f. = 6) Significance = .1485					
	Missing = 7					
24	60 or less	7	2	3	12	
	61-75	12	15	15	42	
	76-90	6	11	19	36	
	91 or more	1	8	15	24	
	Total	23	40	53	116	
	Chi square = 9.47580 (d.f. = 6) Significance = .1485					
	Missing = 7					
25	60 or less	9	2	1	12	1.33
	61-75	30	8	3	41	1.34
	76-90	14	18	3	35	1.68
	91 or more	5	10	7	22	2.09
	Total	58	38	14	110	1.60
	Chi square = 24.54750** (d.f. = 6) Significance = .0004					
	Missing = 13					

Table 24 (Continued)

Item number	Salary level (x \$100.)	Competency need			Total	Mean scores
		Little	Moderate	High		
26	60 or less	9	2	1	12	1.33
	61-75	27	9	5	41	1.46
	76-90	16	12	9	37	1.81
	91 or more	4	4	14	22	2.45
	Total	56	27	29	112	1.75
	Chi square = 26.63124** (d.f. = 6) Significance = .0002 Missing = 11					
27	60 or less	3	3	4	15	
	61-75	9	14	17	40	
	76-90	5	11	19	35	
	91 or more	3	10	8	21	
	Total	20	43	48	111	
	Chi square = 4.86489 (d.f. = 6) Significance = .5613 Missing = 12					
28	60 or less	1	7	7	15	
	61-75	5	14	22	41	
	76-90	6	14	15	35	
	91 or more	2	6	16	24	
	Total	14	41	60	115	
	Chi square = 4.51327 (d.f. = 6) Significance = .6076 Missing = 8					
29	60 or less	0	7	9	16	
	61-75	3	12	26	41	
	76-90	2	10	22	34	
	91 or more	2	9	12	23	
	Total	7	38	69	114	
	Chi square = 2.90409 (d.f. = 6) Significance = .8208 Missing = 9					
30	60 or less	1	5	10	16	
	61-75	5	14	22	41	
	76-90	4	15	15	34	
	91 or more	4	9	9	22	
	Total	14	43	56	113	
	Chi square = 3.04434 (d.f. = 6) Significance = .8033 Missing = 10					

Table 24 (Continued)

Item number	Salary level (x \$100.)	Competency need			Total	Mean scores
		Little	Moderate	High		
31	60 or less	4	4	8	16	
	61-75	10	10	20	40	
	76-90	7	6	22	25	
	91 or more	5	5	13	23	
	Total	26	25	63	114	
	Chi square = 1.50983 (d.f. = 6) Significance = .9588 Missing = 9					
32	60 or less	7	5	2	14	
	61-75	19	9	12	40	
	76-90	12	13	9	34	
	91 or more	6	8	8	22	
	Total	44	35	31	110	
	Chi square = 5.29698 (d.f. = 6) Significance = .5063 Missing = 13					
33	60 or less	1	6	7	14	
	61-75	3	9	29	41	
	76-90	2	9	25	36	
	91 or more	0	2	22	24	
	Total	6	26	83	115	
	Chi square = 8.77322 (d.f. = 6) Significance = .1867 Missing = 8					
34	60 or less	4	2	6	12	2.16
	61-75	9	13	19	41	2.24
	76-90	4	15	16	35	2.34
	91 or more	1	2	20	23	2.83
	Total	18	32	61	111	2.38
	Chi square = 17.28601* (d.f. = 6) Significance = .0083 Missing = 12					
35	60 or less	7	4	2	13	1.61
	61-75	23	12	5	40	1.55
	76-90	14	13	8	35	1.82
	91 or more	5	7	11	23	2.26
	Total	49	36	26	111	1.79
	Chi square = 13.24528* (d.f. = 6) Significance = .0393 Missing = 12					

Table 24 (Continued)

Item number	Salary level (x \$100.)	Competency need			Total	Mean scores
		Little	Moderate	High		
36	60 or less	3	3	9	15	
	61-75	18	15	7	40	
	76-90	9	16	9	34	
	91 or more	7	10	5	22	
	Total	37	44	30	111	
	Chi square = 12.62619* (d.f. = 6) Significance = .0494					
	Missing = 12					
37	60 or less	1	8	7	16	
	61-75	12	17	11	40	
	76-90	11	11	13	35	
	91 or more	0	7	6	22	
	Total	33	43	37	113	
	Chi square = 6.75900 (d.f. = 6) Significance = .3437					
	Missing = 10					
38	60 or less	3	5	7	15	
	61-75	14	16	10	40	
	76-90	12	18	4	34	
	91 or more	9	7	6	22	
	Total	38	46	27	111	
	Chi square = 8.39601 (d.f. = 6) Significance = .2105					
	Missing = 12					
39	60 or less	3	6	5	14	
	61-75	16	17	7	40	
	76-90	12	17	5	34	
	91 or more	10	6	6	22	
	Total	41	46	23	110	
	Chi square = 5.86072 (d.f. = 6) Significance = .4290					
	Missing = 13					
40	60 or less	5	3	6	14	
	61-75	20	14	6	40	
	76-90	12	12	10	34	
	91 or more	6	12	4	22	
	Total	43	41	36	110	
	Chi square = 9.17223 (d.f. = 6) Significance = .1641					
	Missing = 13					

Table 24 (Continued)

Item number	Salary level (x \$100.)	Competency need			Total	Mean scores
		Little	Moderate	High		
41	60 or less	2	6	8	16	
	61-75	4	17	19	40	
	76-90	7	10	17	34	
	91 or more	5	6	11	22	
	Total	18	39	59	112	
	Chi square = 3.47121 (d.f. = 6) Significance = .7478					
	Missing = 11					
42	60 or less	1	9	5	15	
	61-75	14	17	9	40	
	76-90	17	13	4	34	
	91 or more	9	8	5	22	
	Total	41	47	23	111	
	Chi square = 9.43392 (d.f. = 6) Significance = .1511					
	Missing = 12					
43	60 or less	5	4	4	13	
	61-75	24	12	4	40	
	76-90	15	11	8	34	
	91 or more	6	10	6	22	
	Total	50	37	22	109	
	Chi square = 8.19736 (d.f. = 6) Significance = .2240					
	Missing = 14					
44	60 or less	1	3	12	16	
	61-75	7	17	17	41	
	76-90	6	12	16	34	
	91 or more	5	12	6	23	
	Total	19	44	51	114	
	Chi square = 9.53806 (d.f. = 6) Significance = .1455					
	Missing = 9					
45	60 or less	2	4	10	16	
	61-75	5	16	20	41	
	76-90	5	15	15	35	
	91 or more	5	6	12	23	
	Total	17	41	57	115	
	Chi square = 3.63524 (d.f. = 6) Significance = .7259					
	Missing = 8					

Table 24 (Continued)

Item number	Salary level (x \$100.)	Competency need			Total	Mean scores
		Little	Moderate	High		
46	60 or less	6	5	1	12	1.58
	61-75	25	8	9	42	1.61
	76-90	11	14	11	36	2.00
	91 or more	3	10	10	23	2.30
	Total	45	37	31	113	1.87
	Chi square = 17.68034* (d.f. = 6) Significance = .0071					
	Missing = 10					
47	60 or less	7	4	2	13	1.61
	61-75	28	8	6	42	1.47
	76-90	16	8	14	38	1.94
	91 or more	5	5	14	24	2.37
	Total	56	25	36	117	1.82
	Chi square = 18.86560* (d.f. = 6) Significance = .0044					
	Missing = 6					
48	60 or less	5	2	8	15	
	61-75	13	13	14	40	
	76-90	11	15	9	35	
	91 or more	4	11	7	22	
	Total	33	41	38	112	
	Chi square = 7.45608 (d.f. = 6) Significance = .2807					
	Missing = 11					
49	60 or less	5	3	4	12	1.91
	61-75	21	9	11	41	1.75
	76-90	14	9	13	36	1.97
	91 or more	3	4	18	25	2.60
	Total	43	25	46	114	2.02
	Chi square = 15.40568* (d.f. = 6) Significance = .0173					
	Missing = 9					
50	60 or less	6	0	8	14	
	61-75	21	7	12	40	
	76-90	13	7	14	34	
	91 or more	4	6	12	22	
	Total	44	20	46	110	
	Chi square = 10.87740 (d.f. = 6) Significance = .0922					
	Missing = 13					

Table 24 (Continued)

Item number	Salary level (x \$100.)	Competency need			Total	Mean scores
		Little	Moderate	High		
51	60 or less	10	2	0	12	
	61-75	32	6	2	40	
	76-90	23	9	3	35	
	91 or more	10	8	4	22	
	Total	75	25	9	109	
	Chi square = 10.17333 (d.f. = 6) Significance = .1175					
	Missing = 14					
52	60 or less	11	1	1	13	1.23
	61-75	29	5	8	42	1.50
	76-90	18	10	8	36	1.72
	91 or more	7	8	9	24	2.08
	Total	65	24	26	115	1.66
	Chi square = 15.60448* (d.f. = 6) Significance = .0160					
	Missing = 8					
53	60 or less	11	1	1	13	1.23
	61-75	29	4	9	42	1.52
	76-90	18	11	7	36	1.69
	91 or more	7	8	9	24	2.08
	Total	65	24	26	115	1.66
	Chi square = 17.32516* (d.f. = 6) Significance = .0082					
	Missing = 8					
54	60 or less	9	1	3	13	1.53
	61-75	32	5	4	41	1.31
	76-90	17	9	10	36	1.80
	91 or more	5	8	11	24	2.25
	Total	63	23	28	114	1.69
	Chi square = 22.89699** (d.f. = 6) Significance = .0008					
	Missing = 9					
55	60 or less	9	2	1	12	1.33
	61-75	31	7	3	41	1.31
	76-90	18	12	5	35	1.62
	91 or more	5	9	9	23	2.17
	Total	63	30	18	111	1.59
	Chi square = 22.31377** (d.f. = 6) Significance = .0011					
	Missing = 12					

Table 24 (Continued)

Item number	Salary level (x \$100)	Competency need			Total	Mean scores
		Little	Moderate	High		
61	60 or less	4	3	6	13	
	61-75	18	13	9	40	
	76-90	18	8	8	34	
	91 or more	15	4	2	21	
	Total	55	28	25	108	
	Chi square = 8.90523 (d.f. = 6) Significance = .1790					
	Missing = 15					
62	60 or less	3	3	9	15	2.40
	61-75	20	10	10	40	1.75
	76-90	14	7	14	35	2.00
	91 or more	12	8	2	22	1.54
	Total	49	28	35	112	1.87
	Chi square = 13.40779* (d.f. = 6) Significance = .0370					
	Missing = 11					
63	60 or less	4	2	7	13	
	61-75	19	11	10	40	
	76-90	20	7	7	34	
	91 or more	15	5	1	21	
	Total	58	25	25	108	
	Chi square = 12.23502 (d.f. = 6) Significance = .0569					
	Missing = 15					
64	60 or less	1	4	8	13	2.53
	61-75	21	9	10	40	1.72
	76-90	12	13	9	34	1.91
	91 or more	15	4	2	21	1.38
	Total	49	30	29	108	1.81
	Chi square = 19.00348* (d.f. = 6) Significance = .0042					
	Missing = 15					
65	60 or less	3	3	9	15	2.40
	61-75	15	10	15	40	2.00
	76-90	12	13	9	34	1.91
	91 or more	13	6	2	21	1.41
	Total	43	32	35	110	1.92
	Chi square = 13.71735* (d.f. = 6) Significance = .0330					
	Missing = 13					

Table 25. Correlation coefficients on subscale total scores

Subscales	Subscales			
	General	Programming	Resource Management	Therapeutic Recreation
General	1.00			
Programming	.82	1.00		
Resource Management	.85	.67	1.00	
Therapeutic Recreation	.79	.86	.68	1.00

APPENDIX F: 1968 ACCREDITATION PROJECT REPORT

NATIONAL RECREATION EDUCATION ACCREDITATION PROJECT

Federation of Organizations for Recreation
(April 1968)

CURRICULUM CONTENT -- THE UNDERGRADUATE PROGRAM

The academic requirements of the curriculum should provide a program that will enable the student to develop the competencies indicated in the curriculum content standards.

A student should be exempt from courses designed to develop the competency required upon demonstrated proficiency. The standard for such demonstrated proficiency is that quality and degree of knowledge, leadership, and technical skill required for the course for which the student is seeking exemption.

Standards 47 through 62 are those required of all students in the recreation and parks curriculum. They provide a framework for the various professional emphases. In the subsequent section, "Professional Emphases," students should be required to obtain only those competencies cited for their particular area of professional emphasis.

General Education

47. Knowledge of the natural and social sciences which contribute to an awareness of physical and social environments and their effects upon men and society.
48. Knowledge of human growth and development of man as an individual and a social being, as well as his needs, desires, and capabilities at all age levels and for varying degrees of mental, emotional, and physical capability.
49. Understanding of the learning process and how to expedite it, including problems of individual differences and of motivation.
50. Understanding of people in their group relationships.
51. Understanding of the history of man's social, intellectual, spiritual, and artistic achievements.
52. An appreciation of man's achievement in the cultural arts.
53. The ability to use effectively the basic tools of written, oral and graphic presentation.
54. Understanding of basic mathematical principles.

Professional Education

55. (History, Theory, Philosophy). Knowledge of the history and development of the recreation and park movements, and an understanding of: 1) the nature of the recreative experience and its importance to the individual; 2) the influence of leisure on society; and 3) the philosophies of recreation.
56. (Community Organization). Understanding of community organization, its philosophy, foundation, principles, and methods.
57. (Recreation and Parks Services). Knowledge of the development, structure, purposes, functions, and interrelationships of private, public, voluntary, military, and commercial agencies which render recreation and park services.
58. (Leadership). An understanding of the dynamics of leaderships, the theories, principles, and practices of leadership, research in leadership, techniques and methods of working with individuals and groups, methods of guidance and counseling in various settings, and supervisory techniques.
59. (Programming). An understanding and general knowledge of the program fields in relation to programming principles, planning objectives and goal-setting, structural organizations, purposes and value of types of activities, selection of program content for special groups, program evaluation.
60. (Administration). Elementary understanding of administrative practices, including: legal aspects of recreation and park services; principles of planning and operation of recreation and park areas and facilities; financial and business procedures; public relations; principles of organization and coordination of services; recruitment, selection, and training of personnel; personnel practices; evaluation.
61. (Laboratory Experiences). The ability to relate theory to practice through a progression of laboratory experiences.
62. Ability to function as a student practitioner in a recreation and park field agency, assuming assigned responsibility, showing appropriate initiative, and contributing to the staff effort effectively.

Professional Emphasis

Since the undergraduate curriculum is designed to give the student a broad basic foundation in recreation and parks professional preparation, no specific specializations are included. However, recognition is given to the great diversity of recreation and park positions in the

professional field through an orientation to these areas through the electives included in each undergraduate professional preparation curriculum. Each student should be advised to select a professional emphasis compatible with his career goal.

Special requirements of specific organizations, as well as state and federal civil service requirements and state certification and registration systems, should be used as a guide for selecting electives.

Three major areas suggested for specific orientation are:

- I. Recreation Program Administration
- II. Recreation and Park Administration
- III. Recreation Resource Administration

Standards for each of these areas of emphasis follow.

I. RECREATION PROGRAM ADMINISTRATION

This professional emphasis focuses upon planning, conducting and administering programs in a variety of settings and program fields. Care should be exercised to make the choice of electives consistent with the needs of the student for his specific career goal.

The settings in which this emphasis would be particularly appropriate include:

- Camping and outdoor education
- Armed forces recreation
- College union management
- Industrial recreation
- School recreation
- Therapeutic recreation
- Voluntary agencies
- Municipal recreation

The following additional competencies are needed for all professionals working in the foregoing settings.

63. A specific knowledge and understanding of organizational procedures, leadership techniques, scope of activities, the psychological, social, spiritual, physical, and mental values, motivational techniques, resources, safety procedures and practices, equipment and materials, et. al., in at least two program fields, with depth in one, such as aquatics, art, crafts, dance, drama, music, outdoor recreation (including camping), social recreation, sports (athletics).

64. A beginning skill competency in at least two program fields such as aquatics, art, crafts, dance, drama, music, outdoor recreation, and sports.

A. Therapeutic Recreation

For those wishing to work with the ill and disabled. The general areas include abnormal psychology, personality development, human behavior and learning theory, and anatomy, physiology, and kinesiology especially for work with the physically handicapped.

The specifics in both general and professional education are:

General Education:

65. Knowledge of man's anthropological antecedents, his socio-cultural development, and his societal involvements.
66. Knowledge of the anatomy and physiology of man.
67. Knowledge of the kinds and degrees of physical, mental, and emotional disability and concomitant effects on the individual.
68. Knowledge of group dynamics and social psychology.
69. Understanding the principles and techniques in guidance and counseling.

Professional Education:

70. Knowledge of medical terminology, general knowledge of administrative structure of treatment and custodial institutions and inter-relationships among the various disciplines within the institution; knowledge of the implications of the physical and emotional limitations imposed by illnesses and handicaps in relation to recreational activity.

Interpretation: At the undergraduate level, this competency should be considered as an orientation to therapeutic recreation, rather than a depth study which comes at the graduate level. It may be met through knowledge obtained from field work and general course work.

B. Camping and Outdoor Education

For those people who desire to work in nature-oriented programs, such as at camps or nature centers, emphasis should be given to the following aspects of the curriculum content:

Professional Education:

72. A specific knowledge and understanding of camping and outdoor education as a program field, with depth competency in camp counseling and outdoor skills.

C. Armed Forces Recreation

This career emphasis should put special emphasis on personnel management and government in addition to general program emphases.

D. College Union Management

The emphasis in this option is on personnel management, role and functions of higher education, and student personnel work.

E. Industrial Recreation

The emphasis in this option should be on personnel management, economics and industrial organization.

F. School Recreation

In this option emphasis should be put on introduction to the public school system, government, guidance and introduction to teaching.

G. Voluntary and Youth-serving Agencies

Special emphasis in this option should be put on the social sciences, group dynamics and coordination of agency programs.

H. Municipal Recreation

This option offers several different possibilities. As a supervisor of a particular program field there should be a depth of specialization in the desired program field, e.g., sports, music, drama, dance, camping, outdoor recreation, art, crafts, or aquatics. The general supervisor will need an emphasis on facility management such as a recreation center or a skating rink and a depth of understanding of program coordination.

II. RECREATION AND PARK ADMINISTRATION

This program focuses upon competencies needed for beginning supervisory and administrative responsibility leading to executive positions in recreation and park systems.

The following additional competencies are required for this professional emphasis:

General Education:

- 73. Knowledge of the theories and principles of economics.
- 74. Knowledge of the theories, principles, and practices of government, with understanding of the workings of units of government from the local to the national.
- 75. Knowledge in the areas of horticulture, floriculture, landscape design, agronomy, turf management, and engineering graphics.

Professional Education:

- 76. A specific knowledge and understanding of at least one program field.
- 77. Understanding of principles and procedures involved in planning for parks and recreation, including land acquisition and utilization, and in the maintenance of park and recreation areas, facilities, and equipment.

III. RECREATION RESOURCES ADMINISTRATION

This program focuses upon the competencies needed for resource administration and supervision for recreation purposes, including the identification, acquisition and allocation, development and management of land and water resources.

The following additional competencies are required for this professional emphasis:

General Education:

- 78. Knowledge of the theories and principles of economics.
- 79. Knowledge of the theories, principles, and practices of government, with understanding of the workings of units of government from the local to the national.
- 80. An understanding of ecology, the interrelation of man to his natural and social environment, and conservation.
- 81. A knowledge and understanding about renewable natural resources.
- 82. Knowledge about the biological and physical sciences.

Professional Education:

83. An understanding of statistical techniques, their use and interpretation, as related to planning.
84. Knowledge of resource economics.
85. Understanding of the principles and techniques involved in resource analysis and planning.
86. Understanding of the principles and development of resource policy and administration.

*Additional elective general education courses should provide for a greater understanding of elements of administrative function, such as accounting, basic business administration, research methodology, and community development.