

ANALYSIS OF CURRICULUM DESIGN FOR A FOUR-YEAR  
UNDERGRADUATE HOTEL AND RESTAURANT  
ADMINISTRATION PROGRAM

By

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1983

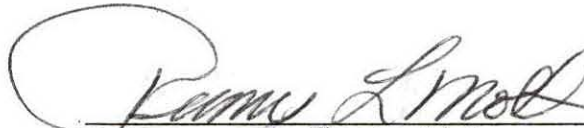
Submitted to the Faculty of the  
Graduate College of the  
Oklahoma State University  
in partial fulfillment of  
the requirements for  
the Degree of  
MASTER OF SCIENCE  
December, 1987


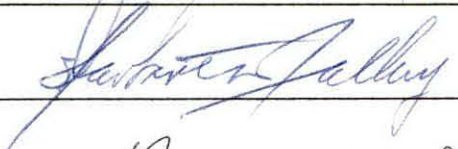
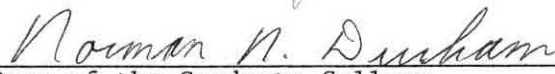
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## ACKNOWLEDGMENTS

The author wishes to extend appreciation to his major advisor, Dr. Dennis L. Mott, for his continued encouragement, support, and direction throughout this research project. Gratitude is also expressed to committee members Dr. Zane Quible, whose patience, guidance, and direction were invaluable and to Dr. Herbert Jelley, for his advice and encouragement.

Indebtedness is extended to Dr. Darryl K. Moser, associate professor of statistics for his assistance in preparation of the statistical data and helpful suggestions. Sincere appreciation is expressed to the institutions that took part in the research project. Their immediate and clear responses made the accomplishment of the research possible.

Finally, the author wishes to express his genuine appreciation and gratitude to his wife Bei Zhuang and daughter Zhe Zhang. Their constant patience, love, and unselfish support were immensely appreciated.

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## CHAPTER I

### INTRODUCTION

During the past two decades, the hotel and restaurant industry has been one of the fastest-growing industries in the United States. From 1962 to 1982, the average rate of annual increase of business income exceeded 15 percent. The number of employees in the industry has increased more than 6 percent each year since 1970. (1, p.3) According to the National Statistics Bureau, the hotel and restaurant industry in the United States will continue to be one of three professions employing the highest number of people over the next ten years. (2, p.10)

The rapid growth has made the identification and education of those who possess the talent, attitudes and motivation to work effectively with the complex service-oriented system critical to the industry. (3, P.3)

However, until the early 1970s, 90 percent of the employees in the hotel and restaurant industry, reflecting every culture, religion, sex, and race at every level of responsibility, had been trained on the job. Management teams had been mainly selected, without formal education, directly from the experienced work force. (3, p.7)

Acknowledging the need for training the industry's



rapidly growing work force, the educational institutions at every level (high schools, vocational technical schools, colleges or universities) began expanding their hotel and restaurant administration programs and establishing new ones. (4, p.50)

Cultivation of competent management personnel is essential. Since the 1970s, faculty members and experts have expressed interest in development of the hotel and restaurant administration curriculum. However, the nature of jobs in hotel and restaurant administration demands a very complex structure of knowledge and skill.

As a business-oriented major, the hotel and restaurant administration curriculum not only contains knowledge of liberal arts and diverse business administration subjects, but also requires knowledge from many other fields. Professional competency training and internships also exist as critical components in the curriculum. (5, p.17)

Overall curriculum quality is determined by the content of the courses. An additional consideration is the logical sequencing of courses within the three areas of a hotel restaurant administration curriculum. Those three areas are university-core courses, business-related courses and professional-related courses. (2, p.3)

From which fields do the knowledge components come? What are they? What is the relationship between basic skill courses and those related to the profession? How are the courses appropriately arranged in the curriculum? Previous

studies have been completed on individual subjects of the curriculum development for the major. However, hotel and restaurant administration, is a rapidly developing and constantly changing field. Therefore, persistent research questions still remain unsolved to the curriculum developers. (6, p,15)

For the sake of increasing efficiency, effectiveness, and relevancy of the courses, principles for developing a comprehensive curriculum is needed. What is now being taught and learned in the hotel and restaurant administration field needs to be further examined and defined.

#### Statement of the Problem

This study was designed to determine the effect of location, type, and size (number of students) of higher education institutions, on the components of curriculum development in the hotel and restaurant administration curriculum. The study was conducted on the basis of the following sub-problems:

- 1) To determine the difference in the rated importance of courses included in a four-year undergraduate hotel and restaurant administration curriculum.
- 2) To ascertain the proportionate number of required credit hours in the various areas of the curriculum.
- 3) To ascertain a logical sequence in arranging the courses in the curriculum.
- 4) To identify the relationship between classroom

learning and internship involvement.

#### Purpose of the Study

The purpose of the study was threefold; namely,

(1) to identify the content and patterns of arrangement of courses for the four-year undergraduate hotel and restaurant administration curriculum.

(2) to identify agreement and disagreement among the experts in the field regarding basic issues in the undergraduate hotel and restaurant administration curriculum.

(3) to produce findings which might provide a basis and a guideline for developing a systematic, coherent, and practical hotel and restaurant administration curriculum.

#### Delimitations

The study was limited to four-year undergraduate programs of hotel and restaurant administration in colleges or universities listed in the category of Hotel and Restaurant Administration of the Index of Major of 1986-1987 Academic Years, which is published by the College Entrance Examination Board in the category of Hotel and Restaurant Administration. (7, pp.136-138) (Appendix I)

Purposely excluded were programs identified as travel or hospitality industry administration or specifically related programs.

Colleges or universities which had hotel and restaurant administration programs may have been unintentionally

excluded if: (1) The programs were not listed in the Index, or (2) if the programs were listed in the Index but under other titles.

The individual titles for courses included in the hotel and restaurant administration curriculum were identified so the content could be studied. No attempt was made to evaluate the quality of the courses.

Every college or university arranged some courses based on the requirements from its local hotel and restaurant industry. This study did not intend to identify these courses from the others and considered them as part of a routine curriculum.

#### Limitations

A limitation was the inability of the researcher to control the participants' responses to the questionnaire. The information was accurate only to the extent that respondents had knowledge about the curriculum and its construction. The cover letter sent with the questionnaires requested that those who were in charge of the curriculum design for the hotel and restaurant administration program or the program designer complete the questionnaire.

#### Hypotheses

The following hypotheses were formulated for this study:

(1) There is no significant difference in the ratings of the importance of coursework in a hotel and restaurant administration curriculum in the higher education institutions when compared to their locations, types and sizes (number of students).

(2) There is no significant difference in the proportionate number of required credit hours in the three coursework areas of the hotel and restaurant administration curriculum.

(3) There is no significant difference in the sequencing of courses in the curriculum for hotel and restaurant administration.

(4) There is no significant difference in the required number of clock-hours for the internship component of the hotel and restaurant administration major.

#### Assumptions

The study was based on the following assumptions:

(1) That all responses to the questionnaires were accurate to the best knowledge of the respondents.

(2) That the curricula researched in the study were based on both academic requirements in the education institutions and the job qualifications in the hotel and restaurant industry.

(3) That the opinions held by the respondents to the questionnaires were representative of the curriculum developers of the schools of hotel and restaurant administra-

tion in the higher education institutions in the United States.

### Variables

The study contained the following three independent variables: 1) location of the colleges or universities; 2) types of colleges or universities; and 3) sizes (number of students) of the colleges or universities.

The dependent variables in the study were the specific components of the hotel and restaurant administration curriculum. They were 1) subject matter of the curriculum; 2) proportionate number of required credit hours in the three areas of the curriculum; 3) the sequential arrangement of courses in the curriculum; and 4) requirement of number of clock hours for internship in the curriculum.

### Definition of Terms

1. Business-related Courses: Courses about basic skills of business administration, such as economics, finance, management, marketing, accounting, business law, and so on.
2. Content: "Fundamental facts, concepts and principles of the subject matter". (8, p.539)
3. Content structure: "The central idea of a science and the relationship among these ideas" (8, p.52)
4. Competence: "Knowledge, skill, attitude, understanding and judgment that somebody possesses when

doing something". (8, p.47)

5. Computer-based courses: Courses which are related to the computer literature and application.
6. Curriculum: "All experiences that the institution provides to assist the student in acquiring competencies needed, to obtain the goals and objectives of the educational institution and the subject matter course."  
(8, p.648)
7. Internship: A period of time for obtaining work experience by working at a hotel or restaurant.
8. Program of hotel and restaurant administration: An administrative unit that offers a four-year university bachelor's degree designed to prepare students for managerial positions in the hotel and restaurant industry.
9. Professional-related-courses: Courses which refer to hotel and restaurant administration.
10. Professional Skills: Knowledge which is directly related to the occupations in the hotel and restaurant industry.
11. University-core courses: Courses which every student in a college or university has to take.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

This chapter provides a review of the related literature pertaining to the development of curriculum in the hotel and restaurant administration field. The chapter is organized into three major sections: (1) background of curriculum development, (2) characteristics of hotel and restaurant administration curricula, and (3) controversies surrounding the curriculum development of the hotel and restaurant administration major.

#### Background of Curriculum Development

The concept of curriculum is very broad, and concerns about curriculum development are extensive. Abundant literature is available. The following definition is a description of curriculum as it is used in this study.

A curriculum is a set of courses which are designed in a logical sequence and which contained the cognitive knowledge students are expected to learn. (10, p.635)

Among the educational administration components (curriculum, personnel, administration, school facilities and resources), curriculum is probably the most difficult



to define. This might be true because curricula reflect a complex society which is always embedded in rapid change and differences among the curriculum developers about the characteristics of curriculum development. Defining a curriculum is also complicated because of uncertainties about proper knowledge components and the organization of certain subject matter. (11, P. 165)

Curriculum development was defined (12, p.17) as:

The procedure of identifying educational goals and objectives, selecting and organizing content of knowledge in relation to criteria and speciality of the profession and planning learning activities, teaching process and evaluating students' outcomes and the effectiveness of the developing process.

In general, theories of curriculum development could be classified into four different schools of thought: (1) subject-centered, (2) experience-centered, (3) objective-centered and (4) opportunity-centered. Each had its own view of what curriculum development meant. Curriculum development could be conducted based on the assumption of each theory. (13,p.7)

Because of the different points of view in the process of curriculum development, people perceive curriculum objectives differently. Therefore, curriculum construction has been a controversial subject throughout the history of education. Disagreements were mainly concentrated on the appropriateness of content and methods of organization.

Generally, faculty members and curriculum developers sought to justify their sense of content importance and sequential arrangement of courses in light of the desired result.

In any case, the factors for developing a competitive curriculum are: (1) need, analyzed in accordance with social, business, and even political requirements (2) knowledge, identified according to the objective of the education, availability of teaching and relativity to the capacity of learners, and 3) organizations related to the depth and width of the structure of the knowledge. (14, pp.5-20)

#### Characteristics of Hotel and Restaurant Administration Curriculum

Specific literature pertaining to hotel and restaurant administration curriculum development was found to be very limited. However, several pertinent studies closely related to curriculum development were found.

The hotel and restaurant industry has been in existence for about two centuries. Accompanying the development of social and technological sciences, the industry had changed from a bed-and-breakfast home style lodging service into a complex management system whose ultimate objective is to satisfy specific societal needs, while maintaining a satisfactory profit margin. (15, p.6)

Hotel and restaurant administration education is con-

sidered a newly developed discipline when compared to education in business, the humanities, and the physical and social sciences. Though the trend of university education for the hotel business became a reality after 1922 when the School of Hotel Administration at Cornell University offered the first courses in hotel administration, it has flourished in recent twenty years. (16, p.4)

Gee, (17, p.2) dean of the Travel Industry Management School at the University of Hawaii, indicated explicitly that a curriculum for the major could be considered as one of the most complicated tasks of university curriculum construction. Because of the characteristics of the profession, it was highly integrated and complicated in its content, range of knowledge, and the variety of controversial subjects.

In terms of content of the knowledge, Powers (18,p.22) Director of School of Hotel and Food Administration at the University of Guelph, observed that content-knowledge for a hotel and restaurant administration curriculum was syncretical because the jobs in the industry demanded an integrated skill structure. In the structure, knowledge from various disciplines infiltrated into each other, which requires organization of the components into a logical sequence.

Regarding the range of the knowledge, the announcement of the School of Hotel Administration at Cornell University (19, pp 13-14) stated that students should pursue a broad

range of knowledge in preparing for their occupations in the business community. In the basic curriculum for the hotel and restaurant administration program, courses could range from physical and art sciences to nutritional analysis; from general administration to food and beverage management. The relationship among the disciplines could constitute a knowledge that equipped competent management personnel for the industry.

Glenys (20, p.3) pointed out that the hotel and restaurant industry was a "people industry." It entertained people out of every corner of the society. The industry satisfied the customer's basic need to eat, drink, and sleep when they were away from home. Students would not be qualified to work well in the industry without high competence in associating with people. Responding to this qualification, growing numbers of programs established requirements in communication, speech, sociology, anthropology and, public relations. The capability of dealing with people was considered one of the most important skills for a person working in the industry.

Peter (2, p.2) emphasized that curriculum development for university-level programs in hotel and restaurant administration has been a continual concern for educators and industry professionals. The variety of characteristics of the industry formed the basis for determining the components of the knowledge structure so curriculum developers can have a clear "parts to the whole" relationship picture.

Controversies concerning the proportion of curriculum allotted to the three areas ----- namely, university-core courses, business-related courses, and professional-related courses ----- have long been considered as the crucial aspect of developing a hotel and restaurant administration curriculum. However, a void exists in the research-oriented literature concerning curriculum development in hotel and restaurant administration.

#### Controversies in Curriculum Development for Hotel and Restaurant Administration

##### On the Content of Knowledge

Hagena (21, pp.92-96) stated that in the process of developing a curriculum, content of knowledge was always the focus of argument. Presently, hotel and restaurant administration curriculum workers, like those of other curricula, were increasingly pressured by the press and concerned business people to put emphasis on the basic skills.

In Hagena's research, he collected the opinions from more than one hundred management people in the hotel and restaurant industry. Most of these people were personnel and training managers. These executives gave their concerns about the graduates' deficiency in the basic skills, such as communication, calculation, spelling, and basic accounting. Most of the executives thought that the primary

mission of colleges or universities should be to prepare students with basic skills which could help them survive in the society. They argued that complicated professional skills could be obtained by having on-the-job training after they entered the industry. The executives felt that content knowledge should concentrate on intellectual skill plus initial subjects related to the job qualifications in the industry.

Hagena studied faculty members' responses by analyzing answers to the same questionnaire. The educators' views about the knowledge content revealed a feeling that higher education should not only prepare students to survive in their lives, but also to make a contribution to the society in which they live. On the one hand, they recognized the importance of having a solid foundation of basic skills. On the other hand, they also advocated that certain parts of the curriculum should emphasize the broadening of students' range of knowledge and cultivation of professional competence. They argued that students could not meet the demands of the positions of management in the industry without a wide range of knowledge about our complex society.

Broadening the topics of the courses in the light of the requirement of the positions in the profession could improve the students' problem-solving capability. Finally, the educators consented that the ratio of knowledge between basic and professional skills in a curriculum for the major needed further study.

Powers strongly supported an educational focus on the development and concentration of basic skills, such as human and conceptual management skills. He considered these skills, which should dominate the whole hotel and restaurant administration curriculum, as paramount in the development of competent and successful managers in the hotel industry. On the other hand, he also indicated the importance of having students become familiar with the basic professional skill.(18, p.32)

#### On Computer-based Education

Numerous studies over the past decade stated that the wide application of information-processing technology in the hotel and restaurant industry has forced managers and their staff to acquire computer-related skills. However, for a long time disagreement about the adaptation of computer-based education to the major has existed among the curriculum developers.

Kelvin (22, p.46) suggested that computer-based education for the major should not merge into the field of hotel and restaurant administration. It should exist independently as a separate subject. What should be taught was computer literacy and programming related to hotel and restaurant administration.

On the contrary, Lambert and Andrew (23, p.110-103) insisted that computer literacy for the major would not be effectively developed as a separate course. Instead, it

should be integrated into all major conceptual areas since the ability to interpret and analyze output was best acquired when it was integrated into a particular subject area. Otherwise, the computer-based education might be considered as a decoration of the subject matter. Their study included 250 hotel and restaurant administration graduates who were currently employed in the industry.

Findings revealed that over 90 percent of the graduates did not have opportunities to do any programming. More than 98 percent of their time with computers involved using the information systems designed by experts to solve routine management problems. Consequently, Lambert and Andrew considered that computer-based education should be an "add-on" subject in the curriculum, which meant that the pure computer science course was applied to the content of hotel and restaurant administration subjects. The objective was not only to acquaint students with principles of computer literacy and programming, but also with the application of computer technology in the industry.

#### On the Internship Program

Contemporary experts tend to agree that hotel and restaurant administration could not be taught wholly in the college classroom. Some form of work experience or internship was deemed necessary because a practicum had tremendous educational value for a hotel and restaurant administration curriculum.



Little doubt appeared to exist concerning the importance of requiring an internship. However, how much time should be required and the positioning of the internship in the program represented a constant dispute among the curriculum developers and faculty members.

Some experts like Kirk-knwaye (24, p.9) point out that the internship was the only way for students to obtain working experience in their jobs in a real world operation. It also provided a way to bridge the gap between what they had learned in the classroom. He concluded that the primary objectives of the program were to 1) integrate practical work experience with academic training; 2) become familiar with career opportunities and characteristics of the labor force in the industry; and 3) develop interpersonal skills needed to work productively with employers, customers, and co-workers.

Kirk-knwaye also stressed the importance of carefully setting the number of hours and skillfully arranging the internship. In his study on the subject, he observed that an excessive number of required hours of internship had a negative effect on students' effort in other subjects and even affected their morale concerning the occupation. He summarized the disadvantage of internship as placing too much pressure on students since they had to work hundreds of hours plus attending to normal academic requirements. Occasionally, time could not be distributed evenly. Besides, the internship shocked some students who may not have been

mentally prepared to work, which in turn, made them tired of working. He insisted that the internship program be intensively planned and have a proper ratio to the total number of courses required for the curriculum.

Conversely, Mahoney (25, p.3) urged that for the sake of cultivating competent management personnel, students before ending their schooling, should have as much practice as possible in the field before graduation. Without enough work experience, students could not be competitive in the first few years on the job, which might be critical to their profession development. What he preferred was that the curriculum developer cut down the hours of theoretical courses and transfer them to the practicum.

To summarize, the curriculum development is a complicated and difficult job to accomplish in higher institution administration. Because of the characteristics of jobs in the hotel and restaurant industry, the curriculum development for this program is especially integrited and challenging.

In the process of the hotel and restaurant administration curriculum development, there are controversites on what is the content of knowledge in the curriculum; whether computer-based education should adapt to the profession, and how the internship is effectively arranged in the curriculum.

## CHAPTER III

### METHODOLOGY AND PROCEDURES

#### Introduction

The purpose of this chapter is to describe the methodology involved in conducting the study. This chapter includes information about the type of research, a description of the subjects, the instrumentation, the procedures used to collect data, and a summary.

This study was designed to determine the effect of locations, types, and sizes (number of students) of higher education institutions on the components of curriculum development in the hotel and restaurant administration curriculum.

#### Type of Research

The research for this study was basically descriptive. According to Gay (26, p.10)

Descriptive research involves collecting data in order to test hypotheses or answer questions concerning the current status of the subject of the study. A descriptive study determines and reports the way things are. One common type of descriptive research involves assessing attitude or opinions. Descriptive data are typically collected through a questionnaire survey, an interview, or observation.

The survey method was used to identify the content of the curricula and to judge whether there were differences in: 1) subject matter of the hotel and restaurant administration curriculum; 2) proportionate number of courses in the three sections of the curriculum; 3) proportionate numbers of credit hours in the three areas of the curriculum; 4) titles of computer-based courses in the curriculum; 5) sequence of arranging the courses in the curriculum; and 6) proportionate number of hours of classroom teaching and internship practice.

#### Population and Sample

##### Description of the Population

The subjects in this study were selected from the population of U.S. colleges and universities that have a hotel and restaurant administration curriculum. The criterion for being included in the population was the offering of a four-year undergraduate degree with a concentration in hotel and restaurant administration. From the Index of Majors for the 1986-1987 Academic Year, published by the College Entrance Examination Board, the number of higher education institutions which satisfied this criterion was 102. They were all included in Hotel and Restaurant Administration category.

An examination of Table I reveals that the 102 institutions were located in 46 different states. Not only did

these institutions contain the common characteristics that a hotel and restaurant administration school should have, but also they possessed their own specialities, affected basically by their different locations, and economic situations.

#### Method For Selection of Samples

To determine the number of colleges and universities required for appropriate statistical analysis, the Small-Sample Formula suggested by the National Education Association (NEA) was used. (27, p.99). The formula is

$$n = \frac{[X^2 N \pi(1-\pi)]}{[d^2 (N-1) + X^2 \pi(1-\pi)]}$$

where:

n = required sample size

X = the table value of Chi-square for one degree of freedom and desired confidence level

N = the population size

$\pi$  = the population proportion which is desired to estimate (assumed to be .50 since this would provide maximum sample size)

d = the degree of accuracy expressed as a proportion (.05)

This formula was used, with a desired confidence level of

.05, to obtain the number of colleges and universities to survey.

$$n = \frac{[(3.841)(102)(.5)(.5)]}{[(.05)(101) + (3.841)(.5)(.5)]} = 80.761$$

The sample was selected by applying a computer randomizing program named RANDOMIZE TIMER.

The purpose for applying this program is to generate randomly the 81 samples needed in the study from among the 102 colleges and universities listed in the Index of Majors for 1986-1987 Academic Year.

In the RANDOMIZE TIMER program, the internal clock of the computer is used as a random number system to identify the respondents.

The randomizing selection of subjects follows the following procedure: 1. compile the names of the 102 colleges and universities from the Index of Majors 2. refile the names alphabetically 3. set the low-limit of the RANDOMIZE TIMER program at one 4. set the up-limit of the program at 81 5. run the program.

The 81 institutions selected were located in 43 different states. The researcher used five time zones of the United States to categorize these institutions: Pacific Region, Mountain Region, Central Region, Eastern Region and Atlantic Region. None of the 81 colleges or universities that provide four-year undergraduate hotel and restaurant

administration degree, was located in the Atlantic time zone. Therefore, the Atlantic time zone was automatically eliminated from the study. The distribution by region of the 81 institutions in the sample is shown in TABLE I.

TABLE I  
REGIONAL AFFILIATION OF POSSIBLE SAMPLE

Regions	Population		Sample	
	Numbers	Percent	Number	percent
Pacific	13	12.75	9	11.11
Mountain	10	9.80	8	9.88
Central	25	24.51	21	25.93
Eastern	54	52.94	43	53.09
Total	102	100.00	81	100.00

Institutions were also categorized into four types of colleges and universities based on Peterson's Annual Guide to Four-year Colleges. (27, p.654) These four types were: 1) Independent comprehensive universities; 2) Independent 4-year colleges; 3) State-supported comprehensive universities; 4) State-supported 4-year colleges.

The sizes of the colleges or universities were sorted as 1) under 1,000 students; 2) 1,000-2,499; 3) 2,500-4,999; 4) 5,000-9,999; 5) 10,000-20,000; 6) 20,000 students or more.

The number of colleges and universities categorized by type, and size are shown in TABLE II.

TABLE II  
NUMBER OF COLLEGES OR UNIVERSITIES  
CATEGORIZED BY TYPE AND SIZE

Items	Number	Percent
<b>Type</b>		
Independent comprehensive universities	21	25.93
Independent 4-year colleges	14	17.28
State-supported comprehensive universities	41	50.62
State-supported 4-year colleges	5	6.18
Total	81	100.00
<b>Size</b>		
Under 1,000 Students	14	17.28
1,000-2,499 Students	16	19.75
2,500-4,999 Students	12	14.82
5,000-9,999 Students	12	14.82
10,000-20,000 Students	13	16.05
20,000 Students or more	14	17.28
Total	81	100.00

#### Development of the Research Instrument

A questionnaire was used to collect information from the randomly selected colleges or universities.

Two kinds of data, namely quantitative and opinions, were collected on the questionnaire. Included in the quantitative data and opinions, were (1) quantities and titles of all the courses included in the curricula of various schools of hotel and restaurant administration in American colleges and colleges; (2) university-core courses, business-related courses, and professional-related areas



of the curricula; (3) hours required for an internship; (4) respondent attitudes toward computer-based education in the major; (5) attitude toward the arrangement of internship programs in the curricula.

The objective for collecting the data was to determine common elements of a four-year undergraduate curriculum for a hotel and restaurant administration major. Opinions were sought to help explain the nature of computer literacy that is part of the curriculum and the ideal working-hour requirement for an effective internship program.

The questionnaire contains 15 questions. The following demographic information was requested on the questionnaire: age, academic rank, and teaching experience in the field. A conscious effort was made to develop a questionnaire that was short, easy to follow, and understandable. Every intent was made to describe the questions clearly and briefly. The confidentiality of response was guaranteed. Identification numbers were used for a follow-up mailing, if needed.

The questionnaire was designed by the researcher following an extensive review of the literature and with the guidance of the committee members.

The questionnaires, accompanied by a cover letter were mailed out to the 81 colleges or universities (see Appendix II) selected by the RANDOMIZE TIMER program.

A cover letter was prepared on Oklahoma State University, College of Business Administration letterhead and

was co-signed by Dr. Dennis L. Mott, Committee Chairman.  
(see Appendix III)

One month after the first mailing, a follow-up letter was sent to those who had not responded to the first mailing. The letter urged response to the questionnaires as soon as possible.

Forty-nine (61.73%) of the 81 institutions responded to the survey. Data from 46 of the responses (56.79%) were analyzed since three of the questionnaires (3.73%) were not completely answered.

### Statistical Analysis

The variables in the study were compared in terms of their frequencies, and the four hypotheses were tested for significance using Chi-square as the test statistic. Gay (26, p.161) described the methodology and statistical procedures in his book Educational Research.

Chi-square is a nonparametric test of significance appropriate when the data are in the form of frequency counts; it compares proportions actually observed in a study with proportion expected to see if they are significantly different.

The Chi-square formula is,

$$X^2 = \sum \left[ \frac{(f_o - f_e)^2}{f_e} \right]$$

Where:

$f_o$  = the observed frequency in any cell

fe = expected frequency for a cell

The .05 level of significance was used to evaluate the significant values of Chi-square.

Data which did not require statistical analysis were summarized and reported to meet research objectives.

## CHAPTER IV

### FINDINGS

Chapter IV discusses the findings of the study designed to analyze the current status of curriculum development for undergraduate hotel and restaurant administration programs at the four-year colleges or universities.

#### Description of Participants

Participants for this study were located in 81 different colleges or universities listed in the Hotel and Restaurant Administration category of the Index of Majors for the 1986-1987 Academic Year.

Forty-nine (61.73%) of the 81 institutions responded to the survey. Data from 46 of the responses (56.79%) were analyzed since three of the returned questionnaires (3.29%) were not completely answered. TABLE III shows the geographic location and profile of the institutions and individuals responding to the questionnaires.

Of the 46 individuals who responded to the study, 24 (52.17%) were from Eastern Region: 13 (28.26%) were from the Central Region; 4 (8.70%) were from the Mountain Region, and 5 (10.87%) were from the Pacific Region.

TABLE III

SELECTED CHARACTERISTICS OF THE COLLEGES OR  
UNIVERSITIES INCLUDED IN THE STUDY  
(N=46)

Items	Number	Percent
Regions of the Institutions		
Pacific Region	5	10.87
Mountain Region	4	8.70
Central Region	13	28.26
Eastern Region	24	52.17
Total	46	100.00
Type of the Institutions		
Independent Comprehensive Universities	13	28.26
Independent 4-year Colleges	6	13.05
State-Supported Comprehensive Universities	26	56.52
State-Supported 4-year Colleges	1	2.17
Total	46	100.00
Size of the Institutions		
Under 1,000 Students	5	10.87
1,000-2,499 Students	6	13.04
2,500-4,999 Students	7	15.22
5,000-9,999 Students	6	13.04
10,000-20,000 Students	9	19.57
20,000 Students or more	13	28.26
Total	46	100.00

Among the colleges or universities participating in the study 26, (56.52%) were schools or departments of hotel and restaurant administration at a state-supported comprehensive university. Thirteen respondents (28.26%) were located in independent comprehensive universities, while six were located in independent 4-year colleges. Only one response was from a state-supported 4-year college.

Size of the respondents' institutions revealed 13 (28.26%) colleges universities had enrollments of more than 20,000 students; nine had 10,000-20,000 students; six had 5,000-9,999, and another six had 1,000-2,499 students. Seven colleges or universities had 2,500-4,999 students, and 5 indicated fewer than 1,000 students.

Selected characteristics of the respondents responding to the survey are presented in TABLE IV.

Of the participants who answered the questionnaires, the majority, 38 (82.60%) were between 40-59 years of age. Eighteen (39.13%) were between 40-49, and 20 (43.50%) were between 50 and 59. Four (8.69%) of the participants were between the ages of 30-39, and another four (8.69%) were above the age of 60.

Eight (17.39%) respondents were instructors, six (13.04%) were assistant professors, 18 (39.13%) were associate professors, and 14 (30.43%) were professors.

Forty-two of the respondents (91.30%) had been actively involved in the area of hotel and restaurant administration for more than 10 or more years. (Nineteen people,

(41.30%)

TABLE IV  
 RESPONDENTS' AGE, ACADEMIC RANKS,  
 AND TEACHING EXPERIENCE IN HOTEL  
 AND RESTAURANT ADMINISTRATION  
 (N=46)

Charateristics of Respondents	Number	Percent
Age		
30-39	4	8.69
40-49	18	39.13
50-59	20	43.48
60 above	4	8.69
Total	46	100.00
Academic Rank		
Instructor	8	17.39
Assistant Professor	6	13.04
Associate Professor	18	39.13
Professor	14	30.43
Total	46	100.00
Teaching Experience in the Field		
5-9 years	4	8.69
10-14 years	22	47.82
15-19 years	18	41.30
20 or more years	1	2.17
Total	46	100.00

had been teaching in the field for 19 to years, and 22 (47.82%) had 10 to 14 years of experience. One respondent had taught 20 or more years. In addition to these 42 respondents, an additional 4 (8.69%) claimed 5-9 years' affiliation with a hotel and restaurant administration program.

### Statistical Analysis

The criterion variables (dependent variables) in this research were the components of a hotel and restaurant administration curriculum. These components were: 1) subject matter of the curriculum; 2) proportionate numbers of courses in the three areas of the curriculum; 3) the sequence of arrangement of courses of the curriculum; 4) required number of hours for internship in the curriculum.

The variates (independent variables) were the characteristics of colleges and universities; namely, location, type, and size (number of students).

The data were analyzed by applying the Chi-square statistic at the .05 level of significance.

#### Hypothesis No.1

Null hypothesis No.1 stated that there is no significant difference in the ratings of the importance of coursework in a hotel and restaurant administration curriculum when compared by their location, type, and size (number of students).

Courses in a hotel and restaurant administration curriculum were divided into university-core courses, business-related courses, and professional-related courses. The data collected in these three areas were analyzed separately by using the Chi-square test of significance. Chi-square values larger than 7.85 with three



degrees of freedom or 11.70 with five degree of freedom were considered significant at the .05 level of confidence.

The results of the Chi-square testing of the data related to this hypothesis are presented in TABLES V through TABLE XIII.

### Location

One of the characteristics of colleges or universities was location. The purpose for including this hypothesis was to determine if the location of the colleges or universities affected the rated importance of courses offered in their curricula. When the degree of importance of courses in the university-core courses of the curriculum was tested using the Chi-square statistic, all the courses obtained Chi-square values under 7.85 needed for significance. Therefore, the location of the colleges or universities made no difference in the rated importance of the courses that comprise the hotel and restaurant administration program.

Null hypothesis No.1 was accepted for the location of institutions.

### Type

The second characteristic studied was the type of higher education institutions. The extent to which the type of institution affected the rated importance of courses in the three areas of the hotel and restaurant

administration curriculum was analyzed using the Chi-square statistic. Except for Advanced Meat Science, Advanced Food Service, and Operations Control.

TABLE V  
CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE OF  
DIFFERENCE BETWEEN LOCATION OF COLLEGES  
OR UNIVERSITIES RELATIVE TO THE IMPORTANCE OF COURSES IN THE UNIVERSITY-CORE AREA OF A HOTEL AND RESTAURANT ADMINISTRATION CURRICULUM

Courses	Degrees of Freedom	Chi-Square Value
1. American History	3	2.323
2. American Government Administration	3	7.009
3. Business Writing	3	5.017
4. Speech Communication	3	2.336
5. Technical Report Writing	3	4.693
6. Foreign Language	3	6.953
7. Computer Literacy	3	2.927
8. BASIC	3	2.336
9. COBAL	3	3.246
10. FORTRAN	3	7.431
11. General Chemistry	3	2.943
12. Elementary Biochemistry	3	2.198
13. Elementary Mechanical Design	3	3.762
14. Engineering Graphics	3	3.547
15. Human Nutrition Science	3	2.943
16. Introductory Anthropology	3	6.458
17. Introductory Psychology	3	6.433
18. Introductory Sociology	3	6.482
19. College Algebra	3	5.339
20. Intermediate Algebra	3	5.142
21. Plane Trigonometry	3	5.142
22. Techniques of Calculus	3	5.134
23. Principles of Humanity	3	6.730
24. Social Law	3	5.206

\* Significant at the .05 level

TABLE VI

CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE OF  
 DIFFERENCE BETWEEN LOCATION OF COLLEGES OR  
 UNIVERSITIES RELATIVE TO THE IMPORTANCE  
 OF COURSES IN THE BUSINESS-RELATED  
 AREA OF A HOTEL AND RESTAURANT  
 ADMINISTRATION CURRICULUM

Courses	Degree of Freedom	Chi-square Value
1. Basic Accounting	3	2.323
2. Business Communication	3	4.234
3. Business Law	3	3.545
4. Finance	3	2.326
5. Human Resource Management	3	2.927
6. Intermediate Accounting	3	6.172
7. International Marketing	3	3.713
8. Investment Management	3	5.134
9. Management Information System	3	2.198
10. Marketing Management	3	5.431
11. Organizational Behavior	3	5.134
12. Principles of Management	3	3.109
13. Principles of Marketing	3	3.109
14. Production and Operations Management	3	6.730
15. Taxation	3	2.926

\* Significant at the .05 level

TABLE VII

CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE OF  
DIFFERENCE BETWEEN LOCATION COLLEGES OR  
UNIVERSITIES RELATIVE TO THE IMPOR-  
TANCE OF COURSES IN THE PROFES-  
SIONAL-ORIENTED AREA OF A  
HOTEL AND RESTAURANT ADMI-  
NISTRATION CURRICULUM

Courses	Degree of Freedom	Chi-square Value
1. Advanced Meat Science	3	7.009
2. Advanced Food Service Operation	3	7.042
3. Basic Housekeeping	3	2.334
4. Basic Meat Science	3	6.352
5. Beverage Management	3	2.109
6. Club Operations Management	3	3.334
7. Fast Food Systems Management	3	7.005
8. Facilities Design and Maintainance	3	3.134
9. Feasibility Studies for the Hotel and Restaurant Administration	3	3.232
10. Food Facility Layout and Design	3	3.134
11. Food and Beverage Management	3	2.323
12. Franchising and Management Contracts	3	4.501
13. Front Office Procedures	3	2.132
14. Financial Management In Hotel and Restaurant	3	3.143
15. Hotel Accounting and Night Auditing	3	4.501
16. Hotel Marketing	3	3.793
17. Hotel Management Information	3	3.344
18. Hotel and Restaurant Property Management	3	3.901
19. Hotel and Restaurant Planning and Design	3	2.323
20. Hotel Law	3	2.827
21. Introduction to Hotel and Restaurant Administration	3	5.701
22. Introduction to Commercial Food Service Production	3	7.023
23. Institution Food Service Management	3	7.403
24. Lodging Management	3	7.032
25. Operations Control in Hotel and Restaurant	3	6.150

TABLE VII (CONTINUED)

Courses	Degree of Freedom	Chi-square Value
26. Research and Statistical Methods for Hotel and Restaurant Administration	3	5.032
27. Motivation and Leadership in Hotel and Restaurant	3	4.507
28. Wine Technology, Merchandising and Marketing	3	3.324

\* Significant at the .05 level

TABLE VIII

CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE OF  
DIFFERENCE BETWEEN TYPE OF COLLEGES OR  
UNIVERSITIES RELATIVE TO THE IMPORTANCE OF COURSES IN THE UNIVERSITY-CORE AREA OF A HOTEL AND RESTAURANT ADMINISTRATION CURRICULUM

Courses	Degree of Freedom	Chi-square Value
1. American History	3	2.323
2. American Government	3	6.692
3. Business Writing	3	4.972
4. Speech Communication	3	3.143
5. Technical Report Writing	3	4.093
6. Foreign Language	3	7.003
7. Computer Literacy	3	2.927
8. BASIC	3	2.336
9. COBAL	3	3.246
10. FORTRAN	3	7.434
11. General Chemistry	3	2.198
12. Elementary Biochemistry	3	3.762
13. Elementary Mechanical Design	3	2.943
14. Engineering Graphics	3	5.482
15. Human Nutrition Science	3	2.943
16. Introductory Anthropology	3	6.482
17. Introductory Psychology	3	6.433
18. Introductory Sociology	3	6.482
19. College Algebra	3	6.433
20. Intermediate Algebra	3	6.482
21. Plane Trigonometry	3	5.339
22. Techniques of Calculus	3	5.432
23. Principles of Humanity	3	5.432
24. Social Law	3	5.138

\* Significant at the .05 level

TABLE IX

CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE OF  
 DIFFERENCE BETWEEN TYPE OF COLLEGES OR UNI-  
 VERSITIES RELATIVE TO THE IMPORTANCE OF  
 COURSES IN THE BUSINESS-ORIENTED  
 AREA OF A HOTEL AND RESTAURANT  
 ADMINISTRATION CURRICULUM

Courses	Degree of Freedom	Chi-square Value
1. Basic Accounting	3	2.323
2. Business Communication	3	5.134
3. Business Law	3	3.713
4. Finance	3	2.326
5. Human Resource Management	3	2.198
6. Intermediate Accounting	3	6.370
7. International Marketing	3	5.109
8. Investment Management	3	4.234
9. Management Information System	3	2.726
10. Marketing Management	3	3.713
11. Organizational Behavior	3	5.134
12. Principle of Management	3	3.109
13. Principle of Marketing	3	2.973
14. Production and Operations Management	3	6.172
15. Taxation	3	3.713

\* Significant at the .05 level

TABLE X

CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE OF  
DIFFERENCE BETWEEN TYPE OF COLLEGES OR UNI-  
VERSITIES RELATIVE TO THE IMPORTANCE OF  
COURSES IN THE PROFESSIONAL-ORIENTED  
AREA OF THE A HOTEL AND RESTAURANT  
ADMINISTRATION CURRICULUM

Courses	Degree of Freedom	Chi-square Value
1. Advanced Meat Science	3	8.021*
2. Advanced Food Service Operation	3	7.874*
3. Basic Housekeeping	3	2.109
4. Basic Meat Science	3	6.105
5. Beverage Management	3	2.109
6. Club Operations Management	3	3.793
7. Fast Food Systems Management	3	7.302
8. Facilities Design and Maintaince	3	4.507
9. Feasibility Studies for the Hotel and Restaurant Administration	3	3.232
10. Food Facility Layout and Design	3	3.793
11. Food and Beverage Management	3	3.232
12. Franchising and Management Contracts	3	4.507
13. Front Office Procedures	3	3.232
14. Financial Management In Hotel and Restaurant	3	4.332
15. Hotel Accounting and Night Auditing	3	4.343
16. Hotel Marketing	3	2.334
17. Hotel Management Information	3	3.232
18. Hotel and Restaurant Property Management	3	3.433
19. Hotel and Restaurant Planning and Design	3	4.017
20. Hotel Law	3	2.109
21. Introduction to Hotel and Restaurant Administration	3	2.232
22. Introduction to Commerical Food Service Production	3	5.750
23. Institution Food Service Management	3	7.043
24. Lodging Managment	3	7.032
25. Operations Control in Hotel and Restaurant	3	8.014*



TABLE X (CONTINUED)

Courses	Degree of Freedom	Chi-square Value
26. Research and Statistical Methods for Hotel and Restaurant Administration	3	5.103
27. Motivation and Leadership in Hotel and Restaurant	3	3.232
28. Wine Technology, Merchandising and Marketing	3	5.109

\* Significant at the .05 level

TABLE XI

CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE OF  
 DIFFERENCE BETWEEN SIZE OF COLLEGES OR UNI-  
 VERSITIES RELATIVE TO THE IMPORTANCE OF  
 COURSES IN THE UNIVERSITY-CORE  
 AREA OF A HOTEL AND RESTAURANT  
 ADMINISTRATION CURRICULUM

Courses	Degree of Freedom	Chi-square Value
1. American History	5	3.927
2. American Government Administration	5	6.953
3. Business Writing	5	4.693
4. Speech Communication	5	2.323
5. Technical Report Writing	5	7.009
6. Foreign Language	5	6.593
7. Computer Literacy	5	2.323
8. BASIC	5	2.336
9. COBAL	5	3.927
10. FORTRAN	5	6.593
11. General Chemistry	5	2.198
12. Elementary Biochemistry	5	3.026
13. Elementary Mechanical Design	5	3.762
14. Engineering Graphics	5	3.246
15. Human Nutrition Science	5	2.943
16. Introductory Anthropology	5	6.127
17. Introductory Psychology	5	6.593
18. Introductory Sociology	5	5.339
19. College Algebra	5	5.432
20. Intermediate Algebra	5	5.147
21. Plane Trigonometry	5	4.109
22. Techniques of Calculus	5	6.258
23. Principles of Humanity	5	5.206
24. Social Law	5	5.138

\* Significant at the .05 level

TABLE XII

CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE OF  
 DIFFERENCE BETWEEN LOCATION OF COLLEGES  
 UNIVERSITIES RELATIVE TO THE IMPOR-  
 TANCE OF COURSES IN THE BUSINESS-  
 RELATED AREA OF A HOTEL AND RES-  
 TAURANT ADMINISTRATION CURRICULUM

Courses	Degree of Freedom	Chi-square Value
1. Basic Accounting	5	2.326
2. Business Communication	5	5.431
3. Business Law	5	3.109
4. Finance	5	2.323
5. Human Resource Management	5	3.198
6. Intermediate Accounting	5	6.192
7. International Marketing	5	5.431
8. Investment Management	5	6.730
9. Management Information Syatem	5	2.198
10. Marketing Management	5	3.143
11. Organizational Behavior	5	5.109
12. Principle of Management	5	2.973
13. Principle of Marketing	5	3.109
14. Production and Operations Management	5	5.431
15. Taxation	5	3.713
* Significant at the .05 level		

TABLE XII

CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE OF  
DIFFERENCE BETWEEN SIZE OF COLLEGES OR UNI-  
VERSITIES RELATIVE TO THE IMPORTANCE OF  
COURSES IN THE PROFESSIONAL-RELATED  
AREA OF A HOTEL AND RESTAURANT  
ADMINISTRATION CURRICULUM

Courses	Degree of Freedom	Chi-square Value
1. Advanced Meat Science	5	7.043
2. Advanced Food Service Operation	5	6.152
3. Basic Housekeeping	5	2.232
4. Basic Meat Science	5	5.109
5. Beverage Management	5	3.109
6. Club Operations Managment	5	6.152
7. Fast Food Systems Management	5	2.232
8. Facilities Design and Maintaince	5	3.143
9. Feasibility Studies for the Hotel and Restaurant Administration	5	3.143
10. Food Facility Layout and Design	5	4.332
11. Food and Beverage Management	5	2.132
12. Franchising and Management Contracts	5	5.150
13. Front Office Procedures	5	2.132
14. Financial Management In Hotel and Restaurant	5	3.109
15. Hotel Accounting and Night Auditing	5	2.344
16. Hotel Marketing	5	4.134
17. Hotel Managment Information	5	3.109
18. Hotel and Restaurant Property Managment	5	3.793
19. Hotel and Restaurant Planning and Design	5	5.032
20. Hotel Law	5	4.501
21. Introduction to Hotel and Restaurant Administration	5	3.134
22. Introduction to Commerical Food Service production	5	5.750
23. Institution Food Service Management	5	7.032
24. Lodging Management	5	6.150
25. Operations Contral in Hotel and Restaurant	5	5.032

TABLE XII (CONTINUED)

Courses	Degree of Freedom	Chi-square Value
26. Research and Statistical Methods for Hotel and Restaurant Administration	5	5.750
27. Motivation and Leadership in Hotel and Restaurant	5	4.507
28. Wine Technology, Merchandising and Marketing	5	3.232
* Significant at the .05 level		

in Hotel and Restaurant Administration in the professional-related area, all courses had Chi-square values under 7.85. Therefore, the type of institutions does not affect the rated importance of courses in the hotel and restaurant curriculum.

Because three courses, Advanced Meat Science, Advanced Food Service, and Operations Control in Hotel and Restaurant Administration had values over 7.85, the null hypothesis relating to type of institution was rejected.

### Size

The third characteristic was the size of the colleges or universities. All courses obtained Chi-square values under 11.07. This indicated that the size of higher education institutions in which the programs are found was not a major factor in determining the rated importance of courses in hotel and restaurant administration curriculum.

Therefore, the hypothesis related to size of institution and rated importance of courses in the various curricula was accepted.

To summarize Hypothesis No.1, all courses when they were compared to the location, type and size of the colleges, except Advanced Meat Science, Advanced Food Service, and Operations Control in Hotel and Restaurant Administration, had Chi-square values under 7.85 with three degrees of freedom or 11.07 with 5 degrees of freedom.

### Hypothesis No.2

Hypothesis No.2 was tested to determine whether there was a significant difference in the proportionate number of credit hours required in the three areas of the hotel and restaurant administration curriculum when compared by location, type, and size (number of students) of colleges or universities. The data were tested for significance using the Chi-square statistic at an alpha level of .05. If any variable had a Chi-square value larger than 7.85 with three degrees of freedom or 11.07 with five degree of freedom, it was considered significant at the 0.05 level of significance.

When the three areas of the hotel and restaurant administration curricula and the location of colleges or universities were tested using the Chi-square statistic, all sections had Chi-square values that were not significant at the .05 level. (see Table XIV) Thus, location is not significant in determining the appropriate number of credit hours required in the various areas of a four-year undergraduate hotel and restaurant administration curriculum.

The number of required credits hours and the type of universities or colleges were tested using the Chi-square statistic. The university-core and business-related sections of courses had Chi-square values that were not significant at the .05 level of significance.

TABLE XIV

CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE OF  
 DIFFERENCE BETWEEN LOCATION TYPE SIZE  
 OF THE COLLEGES OR UNIVERSITIES  
 RELATIVE TO THE PROPORTIONATE  
 NUMBER OF CREDIT HOURS RE-  
 QUIRED IN THE HOTEL AND  
 RESTAURANT CURRICULUM

Sections of Courses	Degree of Freedom	Chi-square Values
Location		
University-core Courses	3	7.003
Business-related Courses	3	8.210
Professional-related Courses	3	10.815
Type		
University-core Courses	3	10.137
Business-related Courses	3	9.403
Professional-related Courses	3	11.100 *
Size		
University-core Courses	5	9.096
Business-related Courses	5	8.372
Professional-related Courses	5	12.079 *
* significant at the .05 level		

As showed in Table XIV the Chi-square test of the professional-related course requirements had significant Chi-square values at the .05 level of significance. Therefore, the null hypothesis that type of institution has no impact on the proportionate number of courses in the three curriculum areas was rejected.

The research instrument analysis revealed that independent and state-supported 4-year colleges assigned more credit hours to professional-related courses than



the independent and state-supported comprehensive universities did.

The proportionate number of credit hours required in the three areas of the hotel and restaurant administration curriculum and the size of the colleges or universities was tested using Chi-square. The university-core and business-related sections of courses had Chi-square values that were not significant at the .05 level of significance.

As Table XIV shows, the professional-related section of courses had a significant Chi-square value at the .05 level of confidence when compared by the size of the colleges or universities. Therefore the null hypothesis was rejected.

Independent and state-supported comprehensive universities did not require as many credit hours in the professional-oriented area of the curriculum as independent and state-supported 4-year colleges did.

To summarize Null Hypothesis No.2, when the proportionate number of credit hours required in the three areas of the hotel and restaurant administration curriculum was compared with the location, type, and size of the colleges or universities using the Chi-square statistic, no variables were significant except the professional-related area of the curricula. A significant difference was found in the professional-related area when compared by type and location of institution. Therefore, the hypothesis was accepted because type and location of institution influ-

ences the proportionate number of credit hours in the professional-related area of the curriculum.

### Hypothesis No.3

Hypothesis No. 3 involved the sequential arrangement of courses in the hotel and restaurant administration curriculum in terms of the location, type, and size (number of students) of colleges or universities. The data were tested using Chi-square statistic with an alpha level of .05. A Chi-square value larger than 7.815 with three degree of freedom or 11.070 with 5 degree of freedom, represented a significant relationship at the .05 level of significance. The results of the Chi-square test for this hypothesis is shown in TABLE XV.

Location, type, and size of colleges or universities were not significant factors in curriculum development when the sequential arrangement of the courses was analyzed by the Chi-square statistic. They all had Chi-square values under the .05 level of significance. Therefore, the Null Hypothesis No. 3 of no significant differences in the sequential arrangement of courses when compared by location, type and size of institution was accepted.

TABLE XV

CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE  
OF DIFFERENCE BETWEEN LOCATION, TYPE,  
SIZE OF COLLEGES OR UNIVERSITIES  
RELATIVE TO THE SEQUENTIAL  
ARRANGEMENT OF COURSES  
IN THE THE HOTEL AND  
RESTAURANT ADMINI-  
STRATION CURRICULUM

Requirements	Degree of Freedom	Chi-square Value
Location		
Requirements prior to enrolling in business-related courses	3	3.327
Requirements prior to enrolling in professional-related courses	3	5.623
Requirements prior to doing internship	3	7.109
Type		
Requirements prior to enrolling in business-related courses	3	3.762
Requirements prior to enrolling in professional-related courses	3	5.973
Requirements prior to doing internship	3	7.033
Size		
Requirements prior to enrolling business-related courses	5	7.369
Requirements prior to enrolling professional-related courses	5	9.227
Requirements prior to doing internship	5	10.797

\* significant at the .05 level

#### Hypothesis No. 4

Hypothesis No. 4 involved the required number of clock-hours for the internship. The data were tested using the Chi-square statistic, using an alpha level of .05. If the variable had a Chi-square value larger than 7.815 with three degree of freedom or 11.070 with 5 degree of freedom, it was considered significant at the .05 level of significance. The results of the Chi-square test for this hypothesis are presented in TABLE XVI.

The required number of clock hours for the internship in the hotel and restaurant administration curriculum compared by the location, type, and size of colleges or universities had a significant Chi-square value at the .05 level of significance. Therefore, the null hypothesis of no significant difference was rejected. This indicated that location, type, and size of the colleges or universities were all significant factors that influence the nature of the internship.

TABLE XVI

CHI-SQUARE STATISTIC FOR THE SIGNIFICANCE OF  
 DIFFERENCE BETWEEN LOCATION, TYPE, SIZE  
 OF COLLEGES RELATIVE TO THE REQUIRED  
 CLOCK HOURS FOR INTERNSHIP IN THE  
 HOTEL AND RESTAURANT ADMINISTRATION CURRICULUM

Requirements	Degree of	Chi-square
Location		
Required clock hours for internships	3	9.228 *
Type		
Required clock hours	3	12.347 *
Size		
Required clock hours	3	13.965 *
* significant at the .05 level		

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter provides a summary of the study, lists conclusions from the findings, and suggests recommendations.

#### Summary

Curriculum development hotel and restaurant administration had been considered as one of the most difficult jobs in higher education curriculum development. It was highly integrated and complicated in its content and range of knowledge because of the characteristics of the industry.

The purposes of this study were to identify the curriculum contents and patterns of arrangement of the courses in the four-year undergraduate hotel and restaurant administration curriculum. The findings would provide a basis and a guideline for developing a systematic, coherent, and practical curriculum for schools of hotel and restaurant administration.

The independent variables of the study were the location, type, and size (number of students) of the higher education institutions.

The dependent variables were the components of of the hotel and restaurant administration curriculum. They

were 1) subject matter of the curriculum; 2) proportionate number of required credit hours in the three areas of the curriculum; 3) the sequence of arrangement of courses in the curriculum; 4) the required number of clock hours for the internship in the curriculum.

Utilizing the Chi-square statistic, the following null hypotheses were tested for significance at the .05 alpha level.

H.1. There is no significant difference in the rated importance of coursework in a hotel and restaurant administration curriculum among the higher education institutions when compared by their location, type, and size (number of students).

H.2. There is no significant difference in the proportionate number of required credit hours in the three coursework areas of a hotel and restaurant administration program.

H.3. There is no significant difference in the sequencing of courses in the hotel and restaurant administration curriculum.

H.4. There is no significant difference in the required number of clock-hours for the internship component of the hotel and restaurant administration curriculum.

Eighty-one colleges or universities were randomly selected from the population of 102 as listed in Hotel and Restaurant Administration category of the Index of

Majors for the 1986-1987 Academic Year.

A total of 49 (61.73%) research instruments were returned. Three of the responses were incomplete and deemed unusable. Therefore, the findings of the study are based on the 46 usable questionnaires.

The research instrument used to collect the data for the study was a questionnaire containing 15 questions designed by the researcher under the guidance of the thesis advisor. The respondents were asked to react to each question by selecting the most suitable choices. Demographic information was also requested.

A majority, 38 (82.60%) of the respondents were between 40-59 years of age. Thirty-two (69.56%) of them were associate professors or professors. Forty-two (91.30%) had been actively involved in the area of hotel and restaurant administration education for 10 or more years.

The data were analyzed by calculating the frequencies and percentages for various questionnaire items. Chi-square was used to test the significance level of the four hypothesis.

When H.1. was tested, the following result was obtained: The null hypothesis was accepted. However, the of Advanced Meat Science, Advanced Food Service, and Operation Control in Hotel and Restaurant Administration courses had Chi-square values that were significant at the .05 level when compared with the type of the colleges or universities. Therefore, the hypothesis was rejected for these courses.



When the H.2. was tested, the following result was obtained:

Location of the institution The statistical analysis of the data showed no significant difference in the proportionate number of required credit hours in the three areas of a hotel and restaurant administration curriculum when compared with the colleges or universities.

Type of the institutions The proportionate number of courses in the professional-related area of the curriculum had a significant Chi-square value when compared with the type of the colleges or universities.

Sizes of the Institutions The proportionate number of courses in the professional-related area of the curriculum had a significant Chi-square value when compared with the colleges or universities.

When H.3. was tested, the following result was obtained: The statistical analysis of the data showed no significant difference at the .05 level in the sequence of courses when compared with the location, type, and size of the institution. The null hypothesis was, therefore, accepted.

When H.4. was tested, the following result was obtained: The required clock hours of internship in a 4-year undergraduate hotel and restaurant administration curriculum were significantly different when compared by the location, type, and size of the colleges or universities. The null hypothesis was rejected.

## Conclusions

Based on the findings of the study, the researcher reached the following conclusion.

1. A curriculum for the hotel and restaurant administration program has a broad range of content components. Knowledge from a variety of disciplines is integrated together to serve the objectives of improving the students' comprehensive problem-solving capability. Courses centered on human relations play an important role in the curriculum.

2. The rating of the importance of the courses in the curriculum for the 4-year undergraduate hotel and restaurant administration program is not significantly influenced by the type, location, and size of higher education institutions.

3. The distribution of the required credit hours in the three areas of 4-year undergraduate hotel and restaurant administration curriculum is not determined by the type, location and size of higher education institution.

4. Little difference exists among the colleges or universities which had 4-year undergraduate hotel and restaurant administration curriculum relative to the course requirements and sequence.

5. Internship is an important component in a hotel and restaurant administration curriculum in order to relate classroom knowledge to practical application. However, unless well designed, the internship could become a

burden to the students.

#### Recommendations

The results of the study led the researcher to propose the following recommendations:

(1) It is advantageous to identify clearly the importance of coursework to students before arranging it into a hotel and restaurant administration curriculum. Curriculum developers can use the rank of the rated importance of the courses presented in this study to determine the best combination of core courses in the curriculum.

(2) Students will benefit from courses related to human relations and communication, because the hotel and restaurant industry is a "people industry." Therefore, the curriculum should contain courses in these two areas.

(3) Computer-based courses will help hotel and restaurant administration majors improve problem-solving ability when the courses are integrated into the hotel and restaurant administration curriculum.

(4) Continuing research is needed to ascertain the ideal proportion and sequence of courses in the three areas of the curriculum relating to various situation of individual colleges or universities.

(5) The internship, as an important part of the curriculum, should be well designed, taking into account the range and depth of the content of the courses in the three areas in the curriculum.

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## APPENDIX

### QUESTIONNAIRE

#### Survey of Curriculum Constitution For Four-year Undergraduate Hotel and Restaurant Administration Program

The following questions are designed to collect information about curriculum development of hotel and restaurant administration programs. Definitions are provided to assist in your response.

1. For a more accurate analysis of the data collected for this research, the following demographic data is need. Please check only one of the blanks next to a, b, and c.
  - A. Your age is in the range of  
30-39\_\_\_\_\_ 40-49\_\_\_\_\_ 50-59\_\_\_\_\_ 60 or older
  - B. Your academic rank is an  
Instructor\_\_\_\_\_  
Assistant Professor\_\_\_\_\_  
Associate Professor\_\_\_\_\_  
Professor\_\_\_\_\_
  - C. Years of teaching in the area  
5-9\_\_\_\_\_ 10-14\_\_\_\_\_ 15-19\_\_\_\_\_  
20 or more years\_\_\_\_\_
2. How many credits are required for graduation with a hotel and restaurant administration degree at your university. Please break the total down, including the credit hours for selectives, into the following categories. If you have quarter system, please indicate.

#### Definition:

University-core-courses: Course which every student in a college or university has to take.

Business-related courses: Courses about basic skills of business administration, such as finance, management, marketing, accounting, business law, and so on.

Professional-related-courses: Courses which directly  
refers to hotel and restaurant administration.

A. Number of required credits in University-core-courses.

a. 15-24 \_\_\_\_\_ b. 25-34 \_\_\_\_\_ c. 35-44 \_\_\_\_\_  
d. 45-54 \_\_\_\_\_ e. 55-64 \_\_\_\_\_  
f. 65 or more credits \_\_\_\_\_

B. Number of required credits in Business-related-courses.

a. 15-24 \_\_\_\_\_ b. 25-34 \_\_\_\_\_ c. 35-44 \_\_\_\_\_  
d. 45-54 \_\_\_\_\_ e. 55-64 \_\_\_\_\_  
f. 65 or more credits \_\_\_\_\_

C. Number of required credits in Professional-related-courses.

a. 15-24 \_\_\_\_\_ b. 25-34 \_\_\_\_\_ c. 35-44 \_\_\_\_\_  
d. 45-54 \_\_\_\_\_ e. 55-64 \_\_\_\_\_  
f. 65 or more credits \_\_\_\_\_

D. The total credits required for a four-year undergraduate hotel and restaurant administration degree at your school is:

a. quarter hours \_\_\_\_\_ b. semester hours \_\_\_\_\_

3. When do your hotel and restaurant administration students usually begin to take business-related courses? Please check only one of the following.

A. Freshman-year \_\_\_\_\_  
B. Sophomore-year \_\_\_\_\_  
C. Junior-year \_\_\_\_\_  
D. Senior-year \_\_\_\_\_

4. Do you have any requirements for your students prior to enrolling in business-related courses?

A. Yes \_\_\_\_\_ B. No \_\_\_\_\_

If you do, please specify. \_\_\_\_\_



5. Please indicate by placing a check mark next to those requirements your students must satisfy prior to enrolling professional-related courses?
- A. Finish all college or university-core courses\_\_\_\_\_
  - B. Finish 80 percent of the college or university-core courses\_\_\_\_\_
  - C. Finish all the business-oriented courses\_\_\_\_\_
  - D. Finish 80 percent of the business-oriented courses\_\_\_\_\_
  - E. Has to be a Freshman\_\_\_\_\_ a Sophomore\_\_\_\_\_
  - a Junior\_\_\_\_\_ a Senior\_\_\_\_\_
  - F. No requirements\_\_\_\_\_
6. Please indicate by placing a check mark (v) in the appropriate column next to those university or college-core-courses, which you feel are ESSENTIAL, DESIRABLE BUT NOT ESSENTIAL, OR NON-ESSENTIAL for a four-year undergraduate hotel and restaurant administration curriculum.

COURSES	ESSENTIAL	DESIRABLE BUT NOT ESSENTIAL	NON- ESSENTIAL
-----			
1. American History	_____	_____	_____
2. American Government	_____	_____	_____
Aeministration	_____	_____	_____
3. BASIC Language	_____	_____	_____
4. Business Writing	_____	_____	_____
5. COBLE Language	_____	_____	_____
6. College Algegra	_____	_____	_____
7. Computer Literacy	_____	_____	_____
8. Elementary Biochemistry	_____	_____	_____
9. Elementary Mechanical	_____	_____	_____
Design	_____	_____	_____
10. Engineering Graphics	_____	_____	_____
11. Foreign Language	_____	_____	_____
12. FORTRAN	_____	_____	_____
13. General Chemistry	_____	_____	_____
14. Human Hutrition	_____	_____	_____
Science	_____	_____	_____
15. Introductory Anthro-	_____	_____	_____
pology	_____	_____	_____
16. Introductory Psychology	_____	_____	_____
17. Introductory Sociology	_____	_____	_____
18. Intermediate Algebra	_____	_____	_____
19. Plane Trigonometry	_____	_____	_____
20. Principles of Humanity	_____	_____	_____
21. Speach Communication	_____	_____	_____
22. Social Law	_____	_____	_____
23. Techniques of Calculus	_____	_____	_____
24. Technical Report Writing	_____	_____	_____
-----			

7. Please indicate by placing a check mark (V) in the appropriate column for the following business-related courses, which you consider, are ESSENTIAL, DESIRABLE BUT NOT ESSENTIAL, OR NON-ESSENTIAL for a four-year under-graduate curriculum of hotel and restaurant administration.

COURSES	ESSENTIAL	DESIRABLE BUT NOT ESSENTIAL	NON- ESSENTIAL
1. Basic Accounting	_____	_____	_____
2. Business Communication	_____	_____	_____
3. Business Law	_____	_____	_____
4. Finance	_____	_____	_____
5. Human Resource	_____	_____	_____
6. Intermediate Accounting	_____	_____	_____
7. International Marketing	_____	_____	_____
8. Investment Management	_____	_____	_____
9. Management Information Service	_____	_____	_____
10. Marketing Management	_____	_____	_____
11. Organizational Behavior	_____	_____	_____
12. Principle of Management	_____	_____	_____
13. Principle of Marketing	_____	_____	_____
14. Production and operations Managment	_____	_____	_____
15. Taxation	_____	_____	_____

8. Do you have special requirements for your students prior to starting internship?

Yes \_\_\_\_\_ No \_\_\_\_\_

If you do, please specify \_\_\_\_\_

9. Please indicate when your students begin internship by placing a check mark in the appropriate column.

A. Freshman-year \_\_\_\_\_  
 B. Sophomore-year \_\_\_\_\_  
 C. Junior-year \_\_\_\_\_  
 D. Senior-year \_\_\_\_\_

10. In the following list, please indicate by placing a check mark (V) in the appropriate column next to those profession-related courses which you feel are ESSENTIAL, DESIRABLE BUT NOT ESSENTIAL OR NON-ESSENTIAL in a four-year undergraduate curriculum of hotel and restaurant administration.

COURSES	ESSENTIAL	DESIRABLE BUT NOT ESSENTIAL	NON- ESSENTIAL
1. Advanced Meat Science	_____	_____	_____
2. Advanced Food Service Operation	_____	_____	_____
3. Basic Housekeeping	_____	_____	_____
4. Basic Meat Science	_____	_____	_____
5. Beverage Management	_____	_____	_____
6. Club Operations Management	_____	_____	_____
7. Fast Food Systems Management	_____	_____	_____
8. Facilities Design and Maintenance	_____	_____	_____
9. Feasibility Studies for the Hotel and Restaurant Administration	_____	_____	_____
10. Food Facility Layout	_____	_____	_____
11. Food and Beverage Management	_____	_____	_____
12. Franchising and Management Contracts	_____	_____	_____
13. Front Office Procedures	_____	_____	_____
14. Financial Management In Hotel and Restaurant	_____	_____	_____
15. Hotel Accounting and Night Audition	_____	_____	_____
16. Hotel Marketing	_____	_____	_____
17. Hotel Management Information	_____	_____	_____
18. Hotel and Restaurant Property Management	_____	_____	_____
19. Hotel and Restaurant Planning and Design	_____	_____	_____
20. Hotel Law	_____	_____	_____
21. Introduction to Hotel and Restaurant Admini- stration	_____	_____	_____
22. Introduction to Commer- cial Food Service Production	_____	_____	_____
23. Institution Food Service Management	_____	_____	_____
24. Lodging Management	_____	_____	_____

COURSES	ESSENTIAL	DESIRABLE BUT NOT ESSENTIAL	NON- ESSENTIAL
25. Operations Control in Hotel and Restaurant	_____	_____	_____
26. Research and Sta- tistical Methods for Hotel and Restaurant Administration	_____	_____	_____
27. Motivation and Leadership in Hotel Restaurant Admini- stration	_____	_____	_____
28. Wine Technology, Merchandising and Marketing	_____	_____	_____

11. How is your hotel and restaurant administration internship administrated? Please place a check mark to indicated.

- A. Your give students special class-time. \_\_\_\_\_
- B. Students use some class-time, some after-class-time. \_\_\_\_\_
- C. Students use after-class-time. \_\_\_\_\_

12. What is your opinion of an internship program for the hotel and restaurant administration program? Please check only one of the following.

- A. Critical for the degree, students should have as much as possible before their graduation. \_\_\_\_\_
- B. Important, but should be limited time which does not affect other subjects. \_\_\_\_\_
- C. Not so important \_\_\_\_\_
- D. Waste of time \_\_\_\_\_

13. How many clock-hours are awarded for an internship in hotel and restaurant the administration at your school? Please check one of the following.

- A. Less than 100 hours \_\_\_\_\_
- B. 100-249 hours \_\_\_\_\_
- C. 250-399 hours \_\_\_\_\_
- D. 400-549 hours \_\_\_\_\_
- E. 550-699 hours \_\_\_\_\_
- F. 700-850 hours \_\_\_\_\_
- G. 850 or more hours \_\_\_\_\_
- H. Other type of time requirement \_\_\_\_\_

14. What do you feel represents an ideal number of clock-hours for an internship in a four-year undergraduate hotel and restaurant administration major?  
Please check only one of the following.

A. Less than 100 hours \_\_\_\_\_  
B. 100-249 hours \_\_\_\_\_  
C. 250-399 hours \_\_\_\_\_  
D. 400-449 hours \_\_\_\_\_  
E. 550-699 hours \_\_\_\_\_  
F. 700-850 hours \_\_\_\_\_  
G. 850 or more hours \_\_\_\_\_

15. Should you like to receive a summary of the findings of this study, please provide appropriate mailing instruction below.

Name \_\_\_\_\_

Number and Street \_\_\_\_\_

City, State and Zipe Code \_\_\_\_\_

## APPENDIX II

### THE UNIVERSITIES OR COLLEGES PARTICIPATE THE SURVEY

Institutions	States
1. Alaska Pacific University	Alaska
2. Alcorn State University	Mississippi
3. Appalachain State University	N. Carolina
4. Arkansas Technology University	Arkansas
5. Ashland College	Ohio
6. Baptist College at Charleston	S. Carolina
7. Barber-Scotia College	N. Carolina
8. Benedictine College	Kansas
9. Belmont College	S. Dakota
10. Berea College	Kentucky
11. Black Hill State College	S. Dakota
12. Boston University	Massachusettes
13. Bowling Green State University	Ohio
14. Brigham Young University Hawaii Campus	Hawaii
15. Bryant College	Rode Island
16. Central Michigan University	Michigan
17. Central Missouri State University	Missouri
18. Cheyney University of Pennsylvania	Pennsylvania
19. Chicago State University	Illinois
20. College of Boca Rator	Florida
21. Concord College	W. Virginia
22. Fairleigh Dickinson University Rutherford Campus	New York
23. Florida International University	Florida
24. Florida State University	Florida
25. Fort Lauderdale College	Florida
26. Geogia State University	Geogia
27. Grambling State University	Louisiana
28. Grand Valley State College	Michigan
29. Hawaii Pacific College	Hawaii
30. Huston Tillotson College	Texas
31. Iowa State University	Iowa
32. James Madison University	Virginia
33. Johnson State College	Vermount
34. Johnson and Wales College	Rode Island
35. Kansas State University	Kansas
36. Kendall College	Illinois

Institutions	States
37. Mary Wood College	Oregon
38. Metropolitan State College	Colorado
39. Michigan State University	Michigan
40. Moorhead State University	Minnesota
41. Morris Brown College	Georgia
42. Mount Marty College	S. Dakota
43. New Mexica Highlands University	New Mexico
44. New York Institute of Technology	New York
45. New York University	New York
46. Niagara University	New York
47. North Dakota State University	N. Dakota
48. Northern Arizona University	Arizona
49. North Texas State University	Texas
50. Ohio State University Columbus Campus	Ohio
51. Oregon State University	Oregon
52. Purdue University	Indiana
53. Rio Grande College and Community College	Ohio
54. Rochester Institute of Technology	New York
55. Roosevelt University	Illinois
56. Seattle Pacific University	Washington
57. Shepherd College	W. Virginia
58. South Dakota State University	S. Dakota
59. Southwest State University	Minnesota
60. State University of New York College at Buffalo	New York
61. St. Thomas University	Florida
62. Transylvania University	Kentucky
63. Tiffin University	Ohio
64. United States International University	California
65. University of Baltimore	Maryland
66. University of N. Carolina	N. Carolina
67. University of Houston University Park	Texas
68. University of Illinois at Urbana-Champaign	Illinois
69. University of Maryland Eastern Shore	Maryland
70. University of Massachusetts at Amherst	Massachusetts
71. University of Nevada: Las Vegas	Nevada
72. University of New Hampshire	New Hampshire
73. University of New Haven	Connecticut
74. University of Southern Mississippi	Mississippi
75. University of Wisconsin Stout	Wisconsin
76. Villa Maria College	Pennsylvania
77. Virginia Polytechnic Institute and State University	Virginia
78. Washington State University	Washington
79. Webber College	Florida
80. Wesleyan College	Connecticut
81. Western Kentudky University	Kentucky



*Oklahoma State University*

COLLEGE OF BUSINESS ADMINISTRATION

STILLWATER, OKLAHOMA 74078-0555  
BUSINESS 201  
405-624-5064

June 20, 1987

Dear Director:

As part of my master's degree program in the Department of Administrative Services and Business Education at Oklahoma State University, I am completing a thesis concerning curriculum design and course content for a collegiate hotel and restaurant administration major. Your assistance in completing the brief questionnaire, that is attached, will be greatly appreciated.

In the research, the factors of curriculum design and course content relative to an ideal curriculum for a collegiate program in hotel and restaurant administration will be studied. If you are not currently involved in curriculum development for hotel and restaurant administration, please pass the questionnaire to a person who is best suited to provide the information.

This study is national in scope and your contribution is important for successful completion. The confidentiality of your response to the questions is guaranteed. For your convenience in returning the completed questionnaire, a postage-paid envelope is enclosed.

Should you be interested in receiving a summary of the results of this study, please indicate this in the space provided in the survey instrument or send a separate note to me at the address given below.

Your time, effort and assistance will be greatly appreciated.

With respect,

*Yan Min Zhang*  
Yan Min Zhang  
Primary Researcher  
121 South Husband Street  
Stillwater, OK 74074

Dennis L. Mott  
Professor and Committee  
Chairman

Enclosures 2







*Oklahoma State University*

COLLEGE OF BUSINESS ADMINISTRATION

STILLWATER, OKLAHOMA 74078-0555  
BUSINESS 201  
405-624-5064

July 8, 1987

Dear Director,

About three weeks ago I mailed you a questionnaire regarding curriculum development and course content for a collegiate hotel and restaurant administration major.

The questionnaire contains 15 questions and was enclosed with a cover letter printed on College of Business at Oklahoma State University letterhead.

I realize this is a very busy time of the year but I would very much like to include your response in the results of my study.

Would you please take a few minutes to fill out the questionnaire and return it as soon as possible.

Your cooperation with this survey is very much appreciated. If you have already returned the questionnaire, I thank you for your time and effort.

Sincerely,

Yan Min Zhang  
121 South Husband St.  
Stillwater, Ok.  
74074

Dennis L. Mott  
Professor and Committee  
Chairman



VITA 2

Yan Min Zhang

Candidate for the Degree of  
Master of Science

Thesis: ANALYSIS OF CURRICULUM DESIGN FOR A FOUR-YEAR  
UNDERGRADUATE HOTEL AND RESTAURANT ADMINISTRATION PROGRAM

Major Field: Business Education

Biographical:

Personal Data: Born in Peking, People's Republic of China, November 15, 1955, son of Zhuei Zhang and Mu Zhen Huo.

Education: Graduated from No. 21 high School, Canton Guang Dong, People's Republic of China, in September 1, 1971; Received Bachelor of Art Degree in Foreign Language and Literature from Zhong Shan University in June 20, 1983; received Diploma of Professional Training on Hotel and Restaurant Administration from The School of Travel Industry Management at University of Hawaii in May, 1985; completed requirements for the Master of Science degree at Oklahoma State University in December, 1987.

Professional Experience: Teaching Assistant, School of Management, Zhong Shan University, June, 1983 to August, 1985; Teaching Assistant, Department of Marketing, Oklahoma State University, August, 1986 to May, 1987.