

AN EVALUATION OF THE CURRENT ACCOUNTING  
CURRICULUM AT NORTHEASTERN OKLAHOMA  
STATE UNIVERSITY WITH IMPLICATIONS  
FOR CURRICULUM REVISION

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## PREFACE

The practice of accounting has always been adapted to meet contemporary needs; the students of today are demanding a relevant curriculum; and the current consumerism emphasis is on responsibility in every facet of the business world, including education. The purpose of this study was to evaluate an accounting curriculum in terms of contemporary business needs and to determine if curriculum revision was necessary.

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## CHAPTER I

### THE NATURE OF THE PROBLEM

#### Background of the Study

Accounting is the product of its environment. Hermits do not need it. Organizations of people do. It has evolved, as have law, medicine, and other fields of human activity, in response to the economic and social needs of people living together in organized groups (Carey, 1973, p. 11).

Accounting has developed from primitive record-keeping of tax collections and simple transactions, recorded by marks on stone or clay, to a provider of essential information in a highly complex American society, recorded by use of electronic equipment.

Throughout history, accounting has been adapted, refined, and expanded to meet the needs of society. The Industrial Revolution, governmental regulation of business through agencies such as the Internal Revenue Service and Securities Exchange Commission, government social programs, and nonprofit organizations are a few of the developments which have created needs for accounting changes. Hart (1969) stated on page 88 that: "Because we are moving at a rapid pace toward the changing environment of the next century, it becomes increasingly imperative that accounting curriculums be under constant review, and that they be kept flexible." "Specifically, we must educate tomorrow's accountant by exposing him to a common body of knowledge not limited to the present but rather the contemplated body of knowledge of tomorrow" (Weiser, 1966, p. 524).

When these developments in the business world and the academic environment are viewed together, it is obvious that a problem exists in planning an accounting curriculum that will meet the increased demands of society, include the expanded body of knowledge, and still fit in the four-year degree program.

In planning the accounting curriculum, several questions need to be answered. Is the present curriculum meeting the needs of business? What constitutes a desirable accounting curriculum? Who should be responsible for evaluating and formulating the accounting curriculum?

Two studies were conducted in 1959 to determine whether collegiate schools of business were meeting the needs of business. The Ford Report and the Carnegie Report were the published results of these studies; they were critical of accounting curriculums.

On page 355 of the Carnegie Report (Pierson, et al., 1959), the statement is made that:

Programs in accounting, at both the undergraduate and graduate levels, have been dominated by professional accounting requirements to the neglect of management aspects of the subject. Professionally oriented courses have, for the most part, been narrowly slanted with emphasis placed upon techniques and procedures. The problems and decisions that face the public accountant and the accountant in private industry require broad education in functional areas of business and government, an understanding of the human aspects of business, and an awareness of the responsibilities of business to society, as well as competence in accounting. Excessive specialization reduces the extent to which these requirements can be met.

The Ford Report (Gordon and Howell, 1959, p. 194) agreed that the "....importance of accounting as a system of information and control has been accepted by businessmen and business educators." But, the undergraduate students who contemplate an accounting career should be restricted to a maximum of twelve semester hours beyond the elementary



course. These writers are of the opinion that the necessary business fundamentals, general education, and the needed accounting training cannot all be "....crammed into the four-year box" (Ibid.). Therefore, they recommend that additional concentration in accounting be assigned to the master's level. The report reiterates the criticism that business schools have excessive specialization--including the area of accounting--at the undergraduate level.

The Ford and Carnegie reports recommended limiting the percentage of the bachelor's degree allocated to accounting courses to 10% and 12.5% to 15%, respectively. In response to this limitation and to the criticism of excessive specialization, the American Accounting Association's Report of Committee on Ford and Carnegie Reports (1961, p. 194) stated that:

The American Accounting Association has long recognized the importance of a proper proportion among the educational elements. It is entirely possible that the deliberations of our committees have been more intensive and their recommendations on a better informed basis than those of the Ford and Carnegie reports. Intensive study of the problem since 1950 has resulted in the virtually uniform recommendation of 25% to accounting, 25% to other business, and 50% to liberal arts.

The question of who should be responsible for evaluating the accounting curriculum has been the concern of a number of individuals--educators, students, practitioners, and corporate executives, to name only a few. A number of suggestions have been proposed for evaluating and improving accounting curriculums.

Bedford (1961, p. 36) stated that: "To university educators the fundamental problem is, 'What kind of man do we want the professional accountant to be?'" He further suggested that practitioners should tell the professors what kind of man they want so that professors can then develop a university curriculum for the profession of accountancy.

He remarked that: "In the main educators have had to depend on intuition, informal observation, and general impressions in developing a broader university professional education program" (Ibid., p. 37).

Hancock and Bell (1970) asserted that while continuous curriculum study is necessary for maintaining viable, relevant programs of education in any field, keeping the business curriculum tuned to student needs and employer expectations is particularly critical. They further stated that while identification of the basic program appeared to be a proper area for the faculty, it cannot be regarded as exclusively the domain of faculty members since students as the immediate "purchasers" of business education and employers as the ultimate "users" can no longer be regarded as passive recipients of predetermined course offerings. These writers recommended that three distinct publics should participate in developing the curriculum in the business school. These three publics are: (1) Buyers--present and past students; (2) Users--employers; and (3) Providers--faculty and administration.

Studies which give emphasis to the desirability of involving students and employers in evaluating curriculums and in implementing any needed curriculum changes have been made.

Edgeworth (1971) declared that most large businesses use some form of consumer surveys to improve their products or services. For example, questionnaires are sometimes attached to the warranty that comes with an appliance. It is implied that the warranty will not be valid unless the questionnaire is completed and returned to the manufacturer. The company analyzes the answers to the questions and many costly mistakes are thus avoided on future production. No company relies solely on consumer surveys, but they are an important factor in the evaluation

of their products and services. On page 15, Edgeworth (1971) stated that:

Educators have failed to utilize this technique to its fullest extent. Consumer surveys can and should become an integral part of periodic curriculum evaluations. The consumers are former students, the product or service is the curriculum and courses, and the purpose is to use the results to revise and improve the curriculum.

Two research studies involving employers' evaluations of business curriculums provided somewhat contradictory findings, but both revealed a willingness and desire of employers to assist in curriculum development.

A study conducted by James and Decker (1974) had as one of its objectives to present personnel officers' attitudes toward business school curriculums and to indicate their suggestions for improvement. Randomly-selected personnel officers were sent questionnaires, and the responses with respect to the attitude toward business school curriculums indicated that 76% of the personnel officers felt that colleges and universities offering degrees in business were preparing students satisfactorily. Respondents were also given an opportunity to develop their own curriculum by indicating the number of semester hours they thought a business student should have in each study area--liberal arts and technical.

The second study involving employers' evaluations of business curriculums was the Gallagher Presidents' Report (1973). This study reported that 76.8% of the 450 chief executives contacted regarded the teaching jobs performed by colleges and universities as inadequate. Almost 60% believed that the liberal arts education which students received was unrelated to business needs; and 75.7% of those executives would like to participate in developing the undergraduate curriculum.

To further substantiate the need for including students and employers in curriculum evaluation, Doney (1970) offered the following criticism to a faculty curriculum committee. Generally the curriculum committee is composed of individuals representing the various segments of the business curriculum--e.g., marketing, accounting, and management. As a result, when curriculum recommendations are presented to the faculty for approval, they are more likely to represent "trade-offs" between the segments than considerations of overall consistency and internal logic of the total system.

In the Ninth Yearbook of the National Business Teachers Association (1943, p. 197), the statement was made that: "A functional curriculum is dynamic and ever-changing.... It is not static, but is continually changing." Since the needs of the business world continue to change, colleges and universities need to be constantly revising, altering, or changing their business curriculums. Traditional methods of instituting change seemingly are not adequate to meet the mutually re-enforcing pressures of the knowledge explosion and student unrest.

Executives (Gallagher, 1973) and other professional groups (Weiser, 1966) believed that graduates generally lack basic skills--such as, command of English grammar, spelling, and good written and oral communications.

The American Institute of Certified Public Accountants (Roy and MacNeill, 1966) emphasized conceptual knowledge--that is, that the accountant should not only know, but that he should understand, functions of accounting, concepts of accounting, and application of accounting concepts.

The history of accounting described the evolvement of accounting from its earliest primitive form to its contemporary complex form.

Since a functional accounting curriculum should be dynamic and change with the changing business needs, and since various groups of individuals have suggested that deficiencies exist in the educational backgrounds of graduates, it was considered appropriate that a study be made of an accounting curriculum that had been in effect for several years.

#### Purpose of the Study

The purpose of this study was to evaluate the accounting curriculum at Northeastern Oklahoma State University, Tahlequah, Oklahoma, and to determine any needed curriculum changes. This evaluation was made by using data obtained from questionnaires mailed to: (1) all accounting majors who graduated from Northeastern Oklahoma State University during the eleven-year period of 1965-1975; (2) all accounting educators who served at Northeastern Oklahoma State University during the eleven-year period of 1965-1975; and (3) a selected representative group of potential employers of accounting graduates.

#### Importance of the Study

The practice of accounting has always been adapted to meet contemporary needs; the students of today are demanding a relevant curriculum; and the current consumerism emphasis is on responsibility in every facet of the business world, including education.

Northeastern Oklahoma State University first began offering a major in accounting leading to the Bachelor of Science degree in 1964. Since the first degrees with accounting majors were conferred in 1965, a total of 596 individuals have been granted this degree. The accounting curriculum had received no formal evaluation during this eleven-year

period, other than by various professional accrediting associations. Therefore, it seemed appropriate that an evaluation of this degree program be conducted to determine whether the current accounting curriculum effectively meets the needs of the business world.

This study should provide a sound basis for any needed revision of the accounting curriculum for Northeastern Oklahoma State University. Further, it should provide other similar institutions in the same geographic area with a design for evaluating their accounting curriculums.

#### Research Procedures

Data were collected by means of questionnaires mailed to three groups of individuals: (1) Northeastern Oklahoma State University accounting graduates; (2) potential employers of accounting graduates; and (3) Northeastern Oklahoma State University accounting educators.

A listing was made of those individuals with a major in accounting who were granted the Bachelor of Science degree during the period 1965 through 1975. Addresses of these graduates were obtained from student enrollments, placement office files, alumni files, local telephone directories, and by personal inquiries to friends and/or relatives of the graduates.

A listing of firms which employ accounting graduates was compiled from selected businesses listed in the yellow pages of telephone directories of cities chosen from the geographic area in which Northeastern Oklahoma State University is located. The list contained a varied representation of potential employers--large and small public accounting firms, large and small Certified Public Accountant firms, private industries, and governmental agencies. (See Table I, page 30, for panel membership.)

A listing of names and addresses of all accounting educators who taught at Northeastern Oklahoma State University during the period investigated was obtained from the office of the Vice President of the University.

Appropriate questionnaires were constructed and sent to members of each of the three groups of individuals. Follow-up letters were sent, as necessary, in an attempt to secure an optimum return of the questionnaires.

Employers and accounting educators were surveyed in order to form a consensus on the accounting concepts and techniques, nonaccounting business skills, and nonbusiness competencies considered to be essential to a desirable accounting curriculum. The Delphi technique was used in collecting these data from the employers and accounting educators. This technique required that all respondents participate in three rounds of questionnaires. A more complete description of the Delphi technique is given in Chapter III.

After the potential employers and accounting educators reached a consensus of what constitutes desired competencies in an accounting curriculum, a questionnaire was constructed to survey the accounting graduates. These respondents were asked to express an opinion of whether the desired competencies were provided by the current accounting curriculum at Northeastern Oklahoma State University.

Upon receipt of the final questionnaires, the data were examined, analyzed, and interpreted in keeping with the purpose of this study.

#### Limitations of the Study

The assumption was made that an accounting major is of value. No attempt was made to prove or to disprove this assumption. The question

was whether the accounting curriculum at Northeastern Oklahoma State University was suitable as determined by the three groups surveyed; and, if not, what areas required change?

The study was limited to the undergraduate Bachelor of Science degree program with an accounting major; the study was not concerned with the overall business education curriculum.

In addition, it was not intended that this study should determine a suitable accounting major program for collegiate institutions that vary to any great extent in size or in purpose from Northeastern Oklahoma State University.

#### Definition of Terms

In order to clarify the interpretation of this study, the following terms are defined as used in this research:

Accounting graduates refers to those students who have completed a major in accounting culminating in the Bachelor of Science degree.

Accounting educators refers to those faculty members with rank of professor, associate professor, assistant professor, or instructor who taught accounting at Northeastern Oklahoma State University during the eleven-year period of the study.

Employers refers to those companies who hire accounting graduates as private or public accountants.

Delphi technique refers to the procedures used in collecting the data by use of questionnaires. This technique obtains a group consensus on a problem via successive questionnaires and feedback. A group opinion is thus obtained without personal confrontation of the individual group members. A detailed description of the Delphi technique is included in Chapter III.



## CHAPTER II

### REVIEW OF RELATED LITERATURE

Curriculum evaluation through follow-up surveys of former students has been the topic of several studies; however, few of these studies were undertaken to evaluate accounting curriculums. Also, none of these investigations included surveys of potential employers, educators, and students in a simultaneous evaluation of a given curriculum, nor did the studies evaluate the total program--including other than the accounting major area.

In order to evaluate a curriculum, the goals of the students should be identified. The changing environment requires that curriculums be adjusted, as deemed necessary, to meet societal needs. Curriculum change should be approached on a total basis, not piece-meal (Hart, 1969). Since three publics are concerned (employers, educators, and students), all should be involved in the evaluation process.

Reviewed in this chapter will be: the educators' views of what constitutes an effective accounting curriculum as expressed by the recommendations of the American Accounting Association; recommendations for the common body of knowledge for Certified Public Accountants; studies related to students' stated satisfactions with their accounting education; and a study which surveyed employers' opinions on accounting curriculums.

Professional Organizations' Recommendations  
for Accounting Curriculums

The American Accounting Association

The task of the American Accounting Association's Committee on Courses and Curricula, General (1964), was to develop a comprehensive body of liberal arts and general business knowledge to be included in an accounting major career. The committee concluded that this body of knowledge should equip the student with the ability to reason, to communicate, to organize, and to act when various situations arise. The committee recommended that the liberal arts and general business knowledge comprise 75-80% of the degree requirements, covering five areas: (1) Development of basic skills in logical and objective thinking--philosophy, mathematics, statistics, and natural science; (2) Development of communicative abilities--English, speech, and foreign language; (3) Cultural-ethical-physical development; (4) Understanding the socio-politico-economic framework of a business in a free-enterprise system--psychology, sociology, government, economics, and law; and (5) Understanding the organization, functions, and problems of business, such as production, marketing, finance, business organization, and control.

The Committee further recommended that accounting should constitute the other 20-25% of the degree requirements. This division of course work was in agreement with Mayhew's (1969) suggested four sets of educational experiences to provide for student development: (1) A common body of knowledge useful to all people; (2) Liberal studies to broaden the student's experience and to enable him to sample more fields; (3) Major courses in the area of specialization; and (4) Contextual courses

related to the major. Mayhew recommended that each of these four areas comprise approximately 25% of the undergraduate degree program.

To complement the above recommendations for the general education requirements of an accounting major, Huff (1969) proposed that in addition to the 60-70 semester hours of course work in cultural courses (logic, mathematics, economics, behavioral science, and particularly communications), the accounting curriculum should include 24-30 semester hours of principles of marketing, accounting, management, finance, business law, business statistics, and business communications and 30-36 semester hours in specialized study. She also stated that studies show that work beyond 24 semester hours in accounting has definite value to the student. The idea expressed here in recommending principles courses revealed the trend toward a broader general education to develop a well-rounded, as well as academically-educated, individual.

#### American Institute of Certified Public Accountants

Roy and MacNeill (1966) collected opinions about the common body of knowledge for beginning CPAs in three general ways: by means of interviews, by means of meetings with various groups ranging in size from a half dozen to more than a hundred; and by means of the "Card Deck" experiment. They felt that because the subject of the study was itself elusive, it was not surprising that they gathered a diversity of views.

The "Card Deck" experiment consisted of using 53 cards, each bearing a relevant subject name, arrayed in fixed random order and mailed to a list of 2,600 respondents, whose names had been compiled by solicitation from a variety of informed sources. Each respondent was asked to rearrange the cards in what he believed to be the best rank

order of importance for the beginning CPA. The most important subject card was to be placed on top, the least important was to be placed on bottom. This procedure forced the respondents to make decisions throughout. More than 1,800 usable replies were received.

Throughout the experiment, no attempt was made to use results for the establishment of a cut-off threshold for the common body of knowledge. Roy and MacNeill derived emphasis and support for their recommendations on communication skills from the first-place rank given by many of the respondents to the subject card "Written and Oral English." Conversely, they went contrary to consensus on subjects related to mathematics when making their recommendations for the common body of knowledge and gave mathematics a higher priority than the respondents did. They noted that accounting, auditing, and taxes were accorded high rank by a large majority of respondents.

This research emphasized a nonspecialized, conceptual approach to accounting knowledge, deliberately omitting specific course outlines. Roy and MacNeill recommended that the common body of accounting knowledge be subdivided into four categories: (1) the functions of accounting; (2) the concepts of accounting, including measurement and compilation, communication of data, and reliability of accounting information; (3) application of accounting concepts; and (4) methods and techniques available to a CPA.

They also suggested that the beginning CPA should have computer capability and fluency to the extent possible with but limited experience. This would include basic knowledge of at least one computer system, knowledge of at least one computer language, and the ability to chart or diagram an information system of modest complexity.

Roy and MacNeill's study (1966) concerned itself with the entire degree program and made the following recommendations:

(1) CPAs need to be concerned with two areas of philosophy: logic and ethics.

(2) CPAs, whatever they may do on behalf of their clients, must always communicate the end results, usually in writing, sometimes orally. CPAs must be able to communicate with clarity and specificity.

(3) CPAs should have knowledge of microeconomics and macroeconomics.

(4) CPAs are advisers to the formal organizations of their clients; therefore, they should be required to have knowledge of the fundamentals of psychology and sociology.

(5) Beginning CPAs should have a general knowledge of the role of law in society.

(6) CPAs should have conceptual understanding of mathematics, statistics, and probability. They should be able to conceptualize, to think in symbols.

(7) CPAs should have knowledge of finance, production, and marketing.

(8) CPAs should have knowledge of personnel relations and business management. This enables them to have a better understanding of the client organizations they serve.

These writers concluded that the CPA must be prepared to grow with changing conditions and ideas; therefore, a conceptual grasp of accounting and its interdisciplinary aspects is preferred to procedural skill development.

Kistler (1970) pointed out that current curriculum revisions based on the Roy and MacNeill study presented different problems for diverse

groups of practitioners. She suggested that in some respects small practitioners need accounting graduates whose preparation has emphasized procedural knowledge, while large firms specializing in complex audits of giant corporations require substantially different skills. Kistler noted that large firms have in-house training programs and can provide continuing staff development for their personnel to train them in the various procedures required while small accounting firms have staff accountants who carry out a variety of duties, many requiring detailed procedural accounting knowledge. She believed that new accounting graduates whose accounting training reflects a conceptual approach and an increased emphasis on mathematics will not be prepared to accomplish immediately many of the essential tasks expected of staff men in small firms.

#### Students' Opinions of Accounting Curriculums

##### The Simons Study (1960)

A study of 1,237 persons who had completed a course of study in accounting in the School of Business Administration at the University of California, Los Angeles, was conducted by Harry Simons in 1960. Questionnaires were mailed to a total of 1,547 individuals who had completed this program during the twelve-year period, 1946-1957, and 80% responded. This study was seeking answers to four major questions: (1) When and where was the student's interest in accounting first conceived? (2) How well were the students trained? (3) What are their occupations? and (4) Are their aspirations being realized?

Since only question two is pertinent to this study, the findings of this question are discussed. Students were asked to appraise the

accounting course offerings and the basic courses required of all business students. In the appraisal of these courses, respondents were asked to rate each course taken either (a) Satisfied to have taken, or (b) Might well have omitted. If the particular course was not taken, the respondent was requested to answer either (a) Would have proved to be useful, or (b) Satisfied to have omitted. Respondents were in agreement in their evaluation of accounting course offerings in the light of their subsequent experiences. They gave high "satisfied to have taken" ratings to advanced accounting, cost accounting, auditing, federal tax accounting, and advanced accounting problems. "Satisfied" ratings ranged from 99% for advanced accounting to 88% for auditing. The "satisfied" rating for governmental accounting was 59%.

When asked what accounting courses might profitably be added in providing an expanded accounting program, respondents' replies, in order of priority were: accounting systems, advanced income tax accounting, accounting report writing, analysis and interpretation of financial statements, and budgetary accounting.

In the appraisal of related business courses, respondents gave "satisfied to have taken" ratings to the required courses in the following order: business law, money and banking, organization and management theory, business statistics, business fluctuations and forecasting, theory of business, elements of production management, and elements of personnel management. "Satisfied" ratings ranged from 99% for business law to 59% for elements of personnel management.

Each questionnaire concluded with an open-ended question asking for suggestions for the improvement of the undergraduate educational program so that it might better serve the accounting major. The largest

number of recommendations and comments in response to this question dealt with the improvement of the accounting curriculum. Suggestions were made that the "practical side" of the accounting program be emphasized. Smaller numbers of graduates expressed opinions suggesting smaller classes, better textbooks, and in the "art of problem-solving" itself.

The study also indicated that there was a widespread sentiment for a strengthening of the school's liberal arts program--to include courses which would develop the student's ability to think and to be articulate. A great number of respondents felt that the university's program was particularly weak in its failure to provide the accounting student with adequate training in English composition and in public speaking. Many persons pointed out that the liberal arts background became increasingly important in business as one moved forward and found it necessary to assume broader responsibilities.

#### The Clark Study (1969)

The evaluation of accounting education and the accounting profession by selected graduates of universities and colleges in Kansas was the purpose of the Clark study conducted in 1969. This research sought to ascertain the graduates' satisfaction with their undergraduate programs as they prepared them for four general areas: the first job, everyday living in today's society, social strata mobility, and professional advancement.

Clark collected data, by means of a questionnaire, surveying nine broad areas--the total undergraduate program, the accounting major, college advisement, internship, part-time work experience, the CPA



examination, the profession of accounting, graduate study, and employment history. In rating the four areas of undergraduate preparation (for the first job, everyday living, social strata mobility, and professional advancement) nearly 83% of the 2,545 ratings obtained indicated adequate preparation. Five other factors were tested against stated satisfaction for significance and correlation. These five factors were: undergraduate semester credit hours of accounting, over-all accounting grade average, nonaccounting business courses, nonbusiness courses, and part-time work while in college. Findings indicated that two factors--the rating of nonaccounting business courses and the desire for more emphasis on nonbusiness courses--proved to be significant factors in stated satisfactions. One-third of the respondents believed the nonbusiness courses should receive more emphasis, primarily in the area of communication.

Two recommendations made by Clark, which related to this study, were: (1) Institutions should evaluate their curriculums in the light of expressed graduate dissatisfaction with specific course offerings; and (2) Because of their indicated significance in this study by their relationship to stated satisfaction, nonaccounting business courses and nonbusiness courses should be carefully examined as to their content and ratio to the total undergraduate program.

#### The Gonzales Study (1972)

The purpose of the Gonzales study was to evaluate the undergraduate accounting program in the Philippine College of Commerce and to use the results in designing a model curriculum.

Questionnaires were designed (based on a set of evaluative criteria determined by a review of related literature and a survey of selected

colleges) for two groups of participants--graduates and faculty. Opinions of these two groups of respondents were synthesized with the evaluative criteria for formulating guidelines for development of the model curriculum.

Findings relevant to this study, as revealed in the opinions expressed in the questionnaires, were as follows:

- (1) Graduates were satisfied with their college preparation in helping them achieve their personal and occupational objectives;
- (2) Graduates found basic accounting courses, dealing with principles rather than specialized courses, useful in their occupations;
- (3) Responses of faculty and graduates indicated awareness of trends in public accounting;
- (4) Responses of graduates suggested the following distribution in the curriculum: 21-60% accounting, 21-30% general business, and 11-20% liberal education;
- (5) Faculty responses suggested the following distribution in the curriculum: 41-50% accounting, 21-30% general business, and 11-20% liberal education; and
- (6) Faculty and graduates favored including Electronic Data Processing on the acquaintanceship level.

Gonzales recommended that the model curriculum should be evaluated through a survey of graduates at least five years from its operation.

#### Employers' Opinions of Accounting Curriculums

The purpose of the Smith study (1969) was to survey Texas CPA firms to determine educational requirements and deficiencies of beginning accountants entering public accounting.

Answers were requested indicating the specific education which beginning junior accountants over the past five years (as of April, 1968) had obtained before entering employment in the office of Texas CPAs. The results showed that bachelor's degrees with accounting majors were required at 76.3% of the national firms, 66.11% of the local partnership firms, 36.87% of the individual practitioner firms, and 57.13% of all firms. Except for certain specialties, most firms expressed a preference for college graduates who had completed 24 to 30 semester hours of college accounting courses.

Feedback to college faculties concerning ratings given their graduates by practicing CPAs is rare. In order to secure such a rating, the questionnaire requested each participant to select an expression or word that most nearly described the collegiate education and training of beginning staff members employed within the past five to eight years. A compilation of ratings of all firms--national, local, and individual practitioners--indicated that 19.5% of the graduates were rated as superior and outstanding, 51.52% were rated good, 23.16% were rated acceptable, and 5.82% were rated poor. It is understandable, of course, that graduates employed at national firms were rated higher than those at other firms, with local firms' ratings being higher than the ratings of individual practitioners. The methods of screening and competition for the outstanding graduates ordinarily results in the more capable graduates being hired by the larger firms. No attempt was made to secure a rating by colleges from which the young accountants graduated.

The question was asked: "Were significant weaknesses observed in a substantial number of recent college graduates employed?" Those who gave an affirmative answer to this question were requested to list the

observed weaknesses. An analysis of reported weaknesses was summarized under three general complaint areas: use of English language, technical preparation, and personal and individualistic.

The words used to indicate dissatisfaction with some young accountants' ability to use good English were: "inability to communicate," "poor grammar and spelling," "weakness in expressing themselves," and "lack ability to write letters and reports."

Deficiencies in technical preparation reported varied from "understanding of basic theory and principles of accounting" to "inability to apply theory to practice," and "lack of ability to use training to recognize problems." The specific subjects most frequently mentioned as requiring more and better instruction were federal taxation, auditing, and data processing.

Personal traits such as "inability to get along with people," "lack of desire to work," and "carelessness" were cited as complaints by some employers.

Smith concluded that accounting educators would be wise to listen with some frequency and in some depth to what the consumers of their services are saying about the quality of their product. Also, since practitioners have a tendency to bottle up their feelings concerning the inadequacies of some of the college graduates they employ, a questionnaire permits them "to tell it like it is" in the hope that a useful purpose may be served.

#### Summary of Related Literature

It appears that, although several studies have been made with the object of formulating accounting curriculums, few have been made to

evaluate current accounting curriculums. Also, in those studies which did have as their purpose the evaluation of an accounting curriculum, no single study surveyed each of the three publics--graduates, educators, and employers.

The recommendations of the AAA and the common body of knowledge for CPAs were similar. Both the American Accounting Association and the American Institute of CPAs were of the opinion that cultural courses--philosophy, logic, mathematics, economics, behavioral sciences, and communications--were of great importance to the accountant. Also, both groups were in agreement that the accountant should have an understanding of the organization, functions, and problems of business, such as production, marketing, finance, and management.

The Simons and Clark studies surveyed accounting graduates in California and in Kansas, respectively, and were designed primarily to determine the effectiveness of the accounting education in terms of graduates' satisfaction with various phases of the undergraduate program. Both studies showed that accounting major graduates agreed that more emphasis should be placed on nonbusiness courses, primarily in the area of communication.

The Gonzales study surveyed the accounting graduates of the Philippine College of Commerce with the purpose of developing a model curriculum. This study also found that basic accounting courses, dealing with principles rather than specialized courses, were of most value to the accounting graduate. Student and faculty responses suggested heavier concentration in accounting (21-60%) than the 20-25% recommended by the American Accounting Association and the American Institute of Certified Public Accountants.

When Smith surveyed employers of CPAs, he found that this group of individuals also indicated dissatisfaction with young accountants' ability to use good English. In the area of accounting, Smith's study showed that deficiencies in technical preparation were in the nature of poor conceptual understandings of basic theory and principles.

## CHAPTER III

### PROCEDURES, SAMPLES, AND INSTRUMENTS USED IN CONDUCTING THE STUDY

#### Procedures Used in the Study

To determine whether the present Northeastern Oklahoma State University accounting curriculum was meeting the needs of the business world, data were necessary concerning what constitutes a desirable accounting curriculum. This problem does not lend itself easily to direct experimental evaluation. Helmer (1966) suggested that the Delphi approach might prove expedient for soliciting ideas for changes in curriculums or in teaching methods.

#### The Delphi Technique

The Delphi technique, an outgrowth of the Rand Think Tank, is based on the adage "Two heads are better than one," or, more generally, "n heads are better than one" (Dalkey, et al., 1972, p. 15). The practice of pooling many minds is found throughout society--as evidenced by committees, panels, juries, boards, and legislatures. The idea is that there is at least as much information in n heads as there is in one. The purpose of this technique is to "cream the tops of the heads" of a group of knowledgeable people.

The Delphi technique takes into consideration that when the n heads meet in a group, one individual member of the group may have a

dominating personality, or prestige, and thus will influence the thinking of the group. When this happens, the final consensus chiefly expresses the thinking of that influential member instead of the thinking of the entire group.

Other factors that present difficulties with the face-to-face interaction of a group are irrelevant or biasing discussion of self interests and group pressure for conformity (Dalkey, et al., 1972). The Delphi procedures are concerned with improving the statistical treatment of individual opinions with controlled feedback. The three features of this technique are: (1) anonymity, (2) controlled feedback, and (3) statistical group response.

Anonymity is effected by the use of questionnaires as opposed to face-to-face interaction. This procedure reduces the effect of dominant personalities. Controlled feedback through a series of sequential questionnaires reduces irrelevant or biasing discussions and results in the consensus of the group. And, the use of a statistical definition of the group response is a way of reducing group pressure for conformity. Respondents are free to express divergent opinions.

Briefly, the steps involved in the technique are as follows:

1. The questionnaires are sent out in four "rounds."
  - a. Round one: The first questionnaire asks respondents to express opinions regarding the topic under discussion.
  - b. Round two: The second questionnaire contains a listing of the first round opinions stated in generic terms. Each respondent is requested to rank or to rate each item on the basis of priority or importance.
  - c. Round three: The questionnaire is sent to the respondents again. Each member of the group is informed of the group median and the interquartile range response to each item. Respondents are asked to consider the opinions of the group, to reconsider their own answers, and to make a second response. If this response lies outside the



interquartile range, respondents are asked to state, briefly, a reason for their divergent (minority) opinion.

- d. Round four: The respondents are given information about round three questionnaire results, and a summary of majority and minority reports. Participants are given this last opportunity to reconsider their answers to the questionnaire.

## 2. A group opinion is formed.

The fourth questionnaire provides a convergence of consensus, and this consensus reflects more nearly the unbiased thinking of the group. In this manner, a group opinion is formed.

Regarding the validity of the Delphi technique as a procedure for systematically developing group judgment, Dalkey et al. (1972) stated on page 3 that:

One of the plain facts of life is that practically all important decisions, whether at the national level, or at the level of everyday life, involve issues which cannot be decided on the basis of hard data or well validated theories.... Surrounding such decisions there is a cloud of uncertainty, attended by mysterious things called "intangibles," which usually make it impossible to arrive at a firm choice. This means that ultimately the decision must rest on the judgment of some individual or group.... A fairly good test whether a given question is highly uncertain is to ask a group of the most knowledgeable people on that subject that can be found and examine the distribution of answers. If the members of the group report much the same answer, there is a good likelihood that the issue is not highly uncertain, and there is even a good likelihood that the group answer is correct. On the other hand, if the group reports a wide diversity of answers, then there is a high probability that the issue is uncertain.

Helmer (1967), the originator of the Delphi technique, asserted that this technique presents one method in which the intuitive, informed individual's opinion can become a part of forecasting. He concluded that the programmed use of informed opinion may lack the elegance and cohesiveness of scientific theory, but it is nevertheless an effective device for exploring the future and aiding the decision-making process.

Malone (1973), in his study of the Delphi technique as an instrument for establishing curriculum revision criteria, determined that this method did move divergent groups toward consensus and did assist in developing a systemized approach to curriculum planning. He further found that three rounds of questionnaires, instead of four, were sufficient. Also, minority reports constituted the more creative aspects of proposed curriculum modification and provided a means of preserving diverse opinions.

In 1973, Griffith used the Delphi technique to involve selected members of a community to set educational goals. He found that this system provided increased community-school communications and produced desirable results in setting goals.

#### Selection of the Sample

As three publics are interested in the accounting curriculum--employers, educators, and students--the sample for the study included individuals from all three publics.

#### Employers

Since accountants are employed by various types of business enterprises, the decision was made to obtain employers of both public and private accountants as participants. The accounting graduates' addresses which were obtained from the Placement Bureau indicated that the majority of Northeastern Oklahoma State University accounting graduates were originally employed in the geographic area in which the university is situated. Of the 596 graduates, a total of 76 gave addresses outside of the university's geographic area, and only 43 of this number

were outside the state of Oklahoma. Since the university's accounting graduates were primarily employed in this stated area, it was further decided to obtain employer participants from this same geographic area. Therefore, a list of firms which employ accounting graduates was compiled from businesses selected from the yellow pages of telephone directories of Tahlequah, Miami, McAlester, Wagoner, Muskogee, Tulsa, Eufaula, Broken Arrow, Henryetta, Bartlesville, Ponca City, and Dewey, Oklahoma, and Fort Smith, Arkansas. From this list, 140 names were chosen. An attempt was made to have a varied representation of potential employers--large and small public accounting firms, large and small certified public accounting firms, private industries, and governmental units.

#### Educators

Another list was compiled which contained names of educators who taught accounting at Northeastern Oklahoma State University during 1964-1975--the period since the accounting major was first offered at the university. Only full-time faculty members with rank of instructor, assistant professor, associate professor, or professor were listed. These names and addresses were obtained from various offices on the Northeastern Oklahoma State University campus.

There were 10 educators and 140 businesses on the combined lists; these individuals and firms were considered to be representative of both general and specialized areas in which accountants can be, and are, employed.

A letter, with a copy of Questionnaire I, was mailed to the 150 individuals and/or firms. The letter explained the purpose of the study and briefly described the Delphi technique. The selected experts were

asked to indicate their willingness to participate in the necessary three rounds of questionnaires by completing and returning the round one questionnaire.

Of the original 150 individuals and/or firms solicited, 52 (34.7%) responded--indicating that they were willing to participate in the study. The Delphi method traditionally consists of polling 20 to 50 experts (Helmer, 1966). Table I illustrates the variety of enterprises, and educators, constituting the panel of experts for this study.

TABLE I  
PANEL OF EXPERTS

Type of Group	Number included on original list	Number responding to Questionnaires		
		I	II	III
CPA Firms	58	17	16	15
Public Accountants	39	8	6	5
Banks and Savings & Loan Associations	23	4	3	2
Attorneys	4	2	2	2
Governmental Units	3	3	2	2
Retail Stores	3	1	1	1
Hospitals	2	0	0	0
Manufacturing Concerns	11	7	5	5
Educators	<u>10</u>	<u>10</u>	<u>10</u>	<u>9</u>
Totals	150	52	45	41

## Students

Since the purpose of the study was to evaluate the current accounting curriculum at Northeastern Oklahoma State University, it was decided that opinions of accounting major graduates should be sought. A listing was made of all individuals with a major in accounting who were granted the Bachelor of Science degree during the period 1965 through 1975. The list contained 596 names. Addresses for these graduates were obtained from student enrollment forms, placement office files, alumni files, local telephone directories, and by personal inquiries to friends and relatives of the graduates.

## Instruments Used in the Study

### Pilot Study

As the first correspondence with the participants called for opinions on required skills, techniques, competencies, and concepts for accountants, a pilot study was conducted to ascertain whether the proposed instrument would elicit the desired type of data needed for constructing the second round questionnaire. An individual who is an attorney, Certified Public Accountant, and accounting educator was consulted for advice concerning persons and/or firms to include in the pilot study. Ten persons, including both private and public accountants, were asked to complete the round one questionnaire which consisted of these three broad statements:

1. To be generally effective as an accountant, I believe an individual should have the following ACCOUNTING skills, techniques, concepts, and competencies:
2. To be generally effective as an accountant, I believe an individual should have the following NONACCOUNTING BUSINESS skills, techniques, concepts, and competencies:

3. To be generally effective as an accountant, I believe an individual should have the following NONACCOUNTING NON-BUSINESS competencies:

The seven questionnaires returned resulted in 28 items which were adaptable and usable for the round two questionnaire. Therefore, the three broad statements on the proposed instrument were judged appropriate for use in the study.<sup>1</sup>

### Study

Three questionnaires were used in obtaining the consensus of the group of experts on the concepts, competencies, and skills necessary for an individual to be generally effective as an accountant. A fourth questionnaire was constructed for administering to the graduates.

Questionnaire I. The purpose of the first questionnaire was to get opinions concerning the three broad areas of an accounting major curriculum--accounting, nonaccounting business, and nonaccounting non-business. The 52 participants were requested to list three to five items they believed to be essential (in each of the three broad areas) in order for an accountant to function effectively. These comments were not to be stated in the form of subject matter titles but in the form of techniques, skills, competencies, and concepts.

Since each participant was to answer three consecutive questionnaires, space was provided for the respondent's name, position, and name of firm. This information made it possible for the second and third questionnaires to be addressed to specific individuals in order to

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<sup>1</sup>A copy of the Pilot Study Questionnaire and instructions for completing it is included in Appendix A.

ensure delivery of the questionnaires to the prior respondents. Respondents were then assigned a coded number for succeeding questionnaires in order to eliminate repetitious requests for this information.<sup>2</sup>

Questionnaire II. The returned round one questionnaires resulted in a total of 74 usable items for Questionnaire II--32 accounting, 25 nonaccounting business, and 17 nonaccounting nonbusiness items. There were duplicate listings for several of the items, and some comments could not be used because they were not teachable items and therefore could not be incorporated in a curriculum. For example, some of the unusable comments were: "Ability to enjoy his life's work," "Desire to participate in community activities," "Common sense," "Sense of humor," "Conscientious regarding personal finances and credit rating," "Aggressiveness," "Extroverted," and "Ability to inspire confidence."

On Questionnaire II, the experts were requested to respond to each of the items listed as to whether they (1) agreed; (2) slightly agreed; (3) were indifferent or did not know; (4) slightly disagreed; or (5) disagreed that an individual should have the specified skills, techniques, competencies, and concepts in order to be generally effective as an accountant.<sup>3</sup>

The response to the second round of the Delphi questionnaire resulted in 45 returned questionnaires, or 87% of the 52 who had participated in round one.

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<sup>2</sup>A copy of Questionnaire I and instructions for completing it is included in Appendix B.

<sup>3</sup>A copy of Questionnaire II and instructions for completing it is included in Appendix C.

Questionnaire III. Because a degree program must fit into four years, only the most important items can be incorporated in the curriculum as requirements for all students; therefore, a consensus criterion of 66% was arbitrarily set by this writer. Of the 74 items listed on Questionnaire II, consensus was reached on 34 items. On Questionnaire III, the 74 items were divided into two groups. The 34 items on which group consensus was reached were listed as Part I of the questionnaire together with a tabulation of how many had responded agree, slightly agree, I am indifferent or I do not know, slightly disagree, or disagree. Each participant's answers to the items were circled so that he could see how he replied in relation to responses of the other experts.

Respondents were asked to reconsider each item and to agree or to disagree with the group consensus. If the respondent disagreed with the group consensus, he was asked to make a brief comment stating his reasons for remaining outside the consensus.

Part II of Questionnaire III consisted of the 40 items on which group consensus was not reached on Questionnaire II. This part also included a tabulation of previous responses and the individual participant's previous answers. Participants were requested to reconsider each item and to respond (1) agree, (2) slightly agree, (3) I am indifferent or I do not know, (4) slightly disagree, or (5) disagree. If their replies were in disagreement with the majority of the second round responses as shown by the tabulation, participants were further requested to make brief comments giving reasons for their divergent opinions.<sup>4</sup>

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<sup>4</sup>A copy of Questionnaire III and instructions for completing it is included in Appendix D.



As was to be expected, a few more participants dropped out during the third round. The response to round three totaled 41, representing 78.8% of the round one participants and 91% of the round two participants.

Follow-up letters were sent in an attempt to secure an optimum return of all three rounds of questionnaires.

Completed round three questionnaires resulted in group consensus being reached on an additional 12 items. The other 28 items were deleted from further consideration. Dalkey (1972) stated on page 4 that: "In those cases where a group of knowledgeable individuals reports a wide diversity of opinion, it would seem that in the majority of cases no one knows the answer." Therefore, it was believed that the diversity of opinion indicated a lack of knowledge regarding the importance of the items on which consensus was not reached. This final list of 46 items on which consensus was reached was deemed to include the necessary skills, competencies, techniques, and concepts that an individual should possess if he is to function effectively as an accountant.

Questionnaire IV. Northeastern Oklahoma State University accounting major graduates were surveyed to ascertain whether the current accounting major curriculum provided an opportunity to obtain the essential items as defined by the experts. Questionnaire IV enumerated the 46 items on which consensus had been reached.

Graduates were asked to answer the question--with respect to each individual item--"Did the accounting curriculum at Northeastern Oklahoma State University provide an opportunity for this item to be obtained?" Yes or No. If the answer was "Yes" the opportunity was provided, the graduates were requested to identify the course, or courses that provided

the opportunity. A portion of the questionnaire was utilized to find out if the graduate had completed his entire bachelor's degree program at Northeastern Oklahoma State University or if he had transferred some credit from other colleges or universities.<sup>5</sup>

Of the original 596 names of graduates, 119 were eliminated because the questionnaires were undeliverable due to lack of current addresses, and 3 were eliminated because the graduates were employers and had participated in the Delphi questionnaires. Of the 151 completed questionnaires returned, an additional 12 were not usable. For example, some had answered only two or three items, and some were received after the May 20 cut-off date. There were 139 usable questionnaires, representing 23.3% of the original list and 29.1% of those questionnaires which were delivered.

Again, follow-up letters were sent and telephone calls were made in an attempt to secure an optimum return of the questionnaires.

Upon receipt of these final questionnaires, the data were examined, analyzed, and interpreted in keeping with the purpose of this study.

#### Summary

Since the purpose of this study was to evaluate the current accounting curriculum at Northeastern Oklahoma State University, priority was given to establishing the criteria for making the evaluation. It was decided that accounting educators and potential employers of accounting graduates were knowledgeable experts and should be consulted in order to formulate the criteria guidelines. After defining the concepts,

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<sup>5</sup>A copy of Questionnaire IV and instructions for completing it is included in Appendix E.

competencies, and skills deemed necessary in order for an individual to be generally effective as an accountant, graduates of Northeastern Oklahoma State University were surveyed to ascertain whether these essential objectives were made available in the accounting curriculum.

## CHAPTER IV

### FINDINGS

#### Introduction

The purpose of this study was to evaluate the accounting curriculum at Northeastern Oklahoma State University and to determine any needed curriculum changes. Answers to three basic questions were sought:

1. What constitutes a desirable accounting curriculum?
2. Does the present accounting curriculum at Northeastern Oklahoma State University provide for the concepts, skills, techniques, and competencies deemed necessary in a desirable accounting curriculum?
3. What changes, if any, are needed in the present accounting curriculum at Northeastern Oklahoma State University?

The findings related to the first two questions are presented in this chapter, and the conclusions and recommendations for any needed curriculum changes are presented in Chapter V.

#### Question 1

What constitutes a desirable accounting curriculum?

The Delphi technique was used to obtain a consensus on what concepts, skills, techniques, and competencies should be included in a desirable accounting curriculum. The total degree program was investigated--accounting, nonaccounting business, and nonbusiness areas.

As was mentioned in Chapter I, various writers have recommended that three publics--educators, employers, and students--participate in

developing the business school curriculum. The panel of experts for formulating an accounting curriculum for the purpose of this study consisted of representatives from the first two publics--accounting educators and employers of accountants. This decision was reached because these two groups of individuals should be more knowledgeable of employment requirements than students who have not yet had occasion to utilize their education.

To eliminate biasing factors, such as emphasis on a particular phase of accounting or accounting specialty, the panel of experts was selected so that a group representative of various types of business enterprises resulted. The criteria thus established resulted in an accounting curriculum to include the essential concepts, techniques, skills, and competencies which a graduate should have so that he can function effectively in the numerous business situations in which he may be employed.

The results of the final Delphi questionnaire, Questionnaire III, are shown in Table II, pages 40-45. While it would, perhaps, be desirable to include all of the original 74 items in an accounting curriculum, only those items considered to be essential by 66% of the members of the panel of experts were considered to have attained group consensus. Therefore, items which were agreed upon by 27 or more members of the panel were included as standards for the evaluation of the accounting curriculum at Northeastern Oklahoma State University.

#### Question 2

Does the present accounting curriculum at Northeastern Oklahoma State University provide for the concepts, skills, techniques, and competencies deemed necessary to a desirable accounting curriculum?

TABLE II  
RESULTS OF THE APPLICATION OF THE DELPHI TECHNIQUE  
TO A LIST OF NECESSARY CONCEPTS, SKILLS,  
TECHNIQUES, AND COMPETENCIES  
FOR ACCOUNTANTS

CONCEPTS, SKILLS, TECHNIQUES, AND COMPETENCIES	Agree	Slightly agree	I am indifferent, or I do not know	Slightly disagree	Disagree
<u>Accounting</u>					
1. Possess a clear understanding of the purposes for which books and records are kept.	39*	2	0	0	0
2. Have a thorough knowledge of generally accepted accounting principles.	41*	0	0	0	0
3. Have a thorough understanding of accounting principles--be consistent in application, but flexible in problem solving.	40*	0	0	0	1
4. Have prepared for the CPA examination.	9	14	2	6	9
5. Have knowledge of machine accounting--including computer utilization.	20	15	0	3	2
6. Be familiar with accounting and reporting requirements of the FASB, APB, SAS, and SEC.	25	8	3	3	1
7. Have an understanding of the objectives of financial and management accounting and reporting, and the needs and expectations of users of financial statements.	38*	3	0	0	0
8. Have an understanding of the basic concepts and accounting principles underlying financial statements of business enterprises.	40*	1	0	0	0
9. Have skills in preparing and interpreting financial statements.	40*	1	0	0	0
10. Have a concept of accounting items in relationship to various businesses.	33*	4	2	1	0

TABLE II (Continued)

CONCEPTS, SKILLS, TECHNIQUES, AND COMPETENCIES					
	Agree	Slightly agree	I am indifferent, or I do not know	Slightly disagree	Disagree
11. Have the ability to understand and follow through the program from basic input of the available data to production of comprehensible financial reports.	39*	1	1	0	0
12. Have basic knowledge of budgeting.	37*	2	2	0	0
13. Have basic knowledge of internal controls--including payroll procedures.	37*	2	1	0	0
14. Know how to use tax services for researching a problem.	34*	4	1	2	0
15. Have an understanding of tax laws and of their effect on accounting decisions.	38*	3	0	0	0
16. Be able to prepare income tax returns.	26	7	1	1	5
17. Have practice in auditing procedures whether it be for internal auditing or preparing for an outside audit.	24	11	1	2	1
18. Understand the purpose of an audit--and basic knowledge of how to audit.	40*	1	0	0	0
19. Become accustomed to actual business situations during the study of theory.	33*	3	1	1	2
20. Be able to analyze accounting data for decision-making--including ratios, rate of return, discounted cash flow, etc.	39*	1	1	0	0
21. Be able to design, implement, and administer a complete simple set of books.	41*	0	0	0	0
22. Be able to design pertinent effective management reports and the systems needed for support.	27*	12	1	0	0
23. Have a clear understanding of various accounting methods and the ability to set up an accounting method best suited for customers' business purposes--including techniques which will allow for improvement of customers' systems, business practices.	33*	6	2	0	0

TABLE II (Continued)

CONCEPTS, SKILLS, TECHNIQUES, AND COMPETENCIES					
	Agree	Slightly agree	I am indifferent, or I do not know	Slightly disagree	Disagree
24. Have the ability to evaluate proposed planning in relation to present and prospective financial statements.	26	11	2	0	0
25. Have knowledge of cost accounting--including product costing and pricing, standard cost systems, variance reporting, and analysis.	35*	6	0	0	0
26. Be time-deadline conscious.	37*	3	1	0	0
27. Be able to produce accurate, neat, fast work.	38*	2	0	0	1
28. Have basic knowledge of the relationship of the accounting functions to the other elements of the organization.	36*	5	0	0	0
29. Know the business structure of various legal entities: corporations, partnerships, fiduciary, and sole proprietorship.	37*	4	0	0	0
30. Have "hands on" experience with various sets of records and journals (apprenticeship).	31*	6	1	0	3
31. Have knowledge of and appreciation for proper business ethics.	39*	2	0	0	0
32. Have completed a course in each area of accounting, including exposure to the more unusual types of entities, i. e. governmental.	22	11	2	0	4
<u>Nonaccounting Business</u>					
33. Understand marketing and distribution systems.	10	26	1	3	0
34. Have a working knowledge of business insurance.	23	11	1	2	2
35. Be able to type.	5	13	4	4	14
36. Have some expertise as a salesman in order to convey properly and to receive acceptance of his ideas.	16	12	4	5	3



TABLE II (Continued)

CONCEPTS, SKILLS, TECHNIQUES, AND COMPETENCIES					
	Agree	Slightly agree	I am indifferent, or I do not know	Slightly disagree	Disagree
37. Have training in the area of management decisions.	27*	9	3	1	0
38. Understand personnel management (psychology).	24	13	3	1	0
39. Have at least a brief exposure to financial management of a business (something on the order of Junior Achievement).	20	14	5	0	2
40. Have knowledge of management systems.	20	17	2	2	0
41. Demonstrate effective business communications--including business letters, report writing, completion of forms--to adequately express opinions and views.	41*	0	0	0	0
42. Develop the technique of being a good listener.	37*	2	0	0	0
43. Have training in supervisory and personnel relations directed toward a business environment.	17	19	3	2	0
44. Have basic knowledge of contemporary business behavior.	26	11	3	0	0
45. Have good working knowledge of the law as it relates to business situations.	31*	9	1	0	0
46. Have some knowledge with respect to the litigation procedures of tax matters.	23	14	3	1	0
47. Be able to use quantitative tools: business mathematics and statistics.	35*	3	1	1	1
48. Understand basic statistical applications.	30*		1	1	0
49. Have a good understanding of our economy--how it operates, what causes fluctuations, and how to respond in business to fluctuations.	20	15	2	0	4
50. Understand the how, why, and need for the free enterprise system.	27*	7	3	0	4

TABLE II (Continued)

CONCEPTS, SKILLS, TECHNIQUES, AND COMPETENCIES					
	Agree	Slightly agree	I am indifferent, or I do not know	Slightly disagree	Disagree
51. Have a basic understanding of the mechanics and the possibilities of the computer.	29*	8	2	2	0
52. Have skill in the use of various business machines (adding machines, calculators) to ensure efficient use of accountant's skills.	33*	5	1	2	0
53. Have knowledge of finance and banking--including financing via lending institutions.	28*	11	1	1	0
54. Be aware of surrounding conditions--have a concept of the total picture for the company.	25	14	1	0	0
55. Possess knowledge of all phases of business--marketing, production, personnel.	20	14	1	0	0
56. Know information and investigative techniques.	30*	4	3	2	1
57. Know Social Security laws, Wage and Hour laws, and various pension plans.	24	12	3	1	1
<u>Nonbusiness</u>					
58. Have a general background in history and literature.	8	8	8	8	9
59. Have knowledge of the organization and function of American government.	16	21	2	2	0
60. Have at least one elective course in sociology.	9	15	5	6	6
61. Have some science.	12	11	6	8	4
62. Have a liberal arts background.	7	7	11	10	6
63. Be able to evaluate problems in a logical manner.	41*	6	0	0	0
64. Understand human behavior and human relations.	31*	7	3	0	0
65. Be able to read people as to their wants, desires, and objectives (public relations).	29*	7	4	1	0

TABLE II (Continued)

CONCEPTS, SKILLS, TECHNIQUES, AND COMPETENCIES					
	Agree	Slightly agree	I am indifferent, or I do not know	Slightly disagree	Disagree
66. Have general knowledge of many fields--from farming, oil, contracting, to retail and manufacturing.	11	26	0	3	1
67. Have some physical activity--hobbies, sports, diversions.	29*	4	3	1	4
68. Have some mathematics--at least through calculus and trigonometry.	14	22	2	0	2
69. Be able to clearly express thoughts in writing.	39*	2	0	0	0
70. Be able to read and absorb important information quickly.	39*	2	0	0	0
71. Be knowledgeable in the use of the English language; possess speaking skills sufficient to orally convey his thoughts, including good grammar.	39*	2	0	0	0
72. Be able to write English correctly, including punctuation, spelling, and good penmanship.	39*	2	0	0	0
73. Possess good listening ability.	37*	3	0	0	1
74. Be able to communicate with personnel without accounting training--to convert accounting terminology to understandable lay conversation.	39*	2	0	0	0

\*Consensus of 66% or more attained.

Question 2 was analyzed through a survey of the third public-- students. As Northeastern Oklahoma State University accounting major graduates had completed the accounting curriculum, these former students were chosen to evaluate the current accounting degree program.

To answer Question 2, accounting graduates were asked two questions:

- A. Did NOSU provide an opportunity for the student to obtain the necessary concepts, skills, techniques, and competencies deemed essential by the panel of experts?
- B. What course, or courses, provided the opportunities for these essential items?

To answer Question A, the questionnaires sent to the graduates listed the 46 essential concepts, skills, techniques, and competencies as determined by the panel of experts via the Delphi technique. The graduates were asked to answer "Yes" or "No," with respect to each item, to the question: "Was provision made for this item (in the accounting curriculum at Northeastern Oklahoma State University)?" Results of the graduates' responses to this question are shown in Table III, pages 47-52.

Again, consensus was considered attained when 66% of the participants agreed on an answer. Positive, "Yes," consensus was reached on 26 of the 46 items; negative, "No," consensus was reached on one item; and, no consensus was attained on the remaining 19 items.

No attempt was made to determine the amount of coverage provided, or of emphasis placed on any of the 46 concepts, skills, competencies, or techniques. From comments made by a few of the graduates, some "No" answers were given if the respondent believed that insufficient stress was given to the item. For example, some comments made by respondents who answered "No" were: "Not stressed enough," "Not enough use of

TABLE III

RESULTS OF GRADUATES' RESPONSES TO THE QUESTION: "WAS PROVISION MADE FOR THIS ITEM IN THE ACCOUNTING CURRICULUM AT NORTHEASTERN OKLAHOMA STATE UNIVERSITY?"

ITEM	Response	NOSU*** Students		Transfer Students		TOTAL		Positive/ Negative/ No Consensus**
		No.	Percent*	No.	Percent*	No.	Percent*	
A. ACCOUNTING CONCEPTS, SKILLS, COMPETENCIES, ETC.								
In order to be generally effective as an accountant, the individual should:								
1. Possess a clear understanding of the purposes for which books and records are kept.	Yes	71	95.9	12	95.4	133	95.7	Positive
	No	3	4.1		4.6	6	4.3	
	No Answer	0	0.0	0	0.0	0	0.0	
2. Have a thorough knowledge of generally accepted accounting principles.	Yes	65	87.8	62	95.4	127	91.4	Positive
	No	9	12.2	3	4.6	12	8.6	
	No Answer	0	0.0	0	0.0	0	0.0	
3. Have a thorough understanding of accounting principles--be consistent in application, but flexible in problem solving.	Yes	61	82.4	54	83.1	115	82.7	Positive
	No	12	16.2	10	15.4	22	15.8	
	No Answer	1	1.4	1	1.5	2	1.4	
4. Have an understanding of the objectives of financial and management accounting and reporting, and the needs and expectations of users of financial statements.	Yes	52	70.3	49	75.4	101	72.7	Positive
	No	22	29.7	15	23.1	37	26.6	
	No Answer	0	0.0	1	1.5	1	.7	
5. Have an understanding of the basic concepts and accounting principles underlying financial statements of business enterprises.	Yes	63	85.1	57	87.7	120	86.3	Positive
	No	11	14.9	7	10.8	18	12.9	
	No Answer	0	0.0	1	1.5	1	.7	
6. Have skills in preparing and interpreting financial statements.	Yes	62	83.8	54	83.1	116	83.5	Positive
	No	12	16.2	9	13.8	21	15.1	
	No Answer	0	0.0	2	3.1	2	1.4	
7. Have a concept of accounting items in relationship to various businesses.	Yes	35	47.3	39	60.0	74	53.2	No Consensus
	No	33	47.3	24	36.9	57	42.1	
	No Answer	4	5.4	2	3.1	6	4.3	

TABLE III (Continued)

ITEM	Response	NOSU Students		Transfer Students		TOTAL		Positive/ Negative/ No Consensus
		No.	Percent	No.	Percent	No.	Percent	
8. Have the ability to understand and follow through the program from basic input of the available data to production of comprehensible financial statements.	Yes	54	73.0	52	80.0	106	76.3	Positive
	No	17	23.0	11	16.9	28	20.1	
	No Answer	3	4.0	2	3.1	5	3.6	
9. Have basic knowledge of budgeting.	Yes	35	47.3	32	49.2	67	48.2	No Consensus
	No	35	47.3	33	50.8	68	48.9	
	No Answer	4	5.4	0	0.0	4	2.9	
10. Have basic knowledge of internal controls--including payroll procedures.	Yes	59	79.7	46	70.8	105	75.5	Positive
	No	13	17.6	18	27.7	31	22.3	
	No Answer	2	2.7	1	1.5	3	2.2	
11. Know how to use tax services for researching a problem.	Yes	44	59.5	42	64.6	86	61.9	No Consensus
	No	28	37.8	22	33.9	50	36.0	
	No Answer	2	2.7	1	1.5	3	2.1	
12. Have an understanding of tax laws and of their effect on accounting decisions.	Yes	50	67.6	48	73.8	98	70.5	Positive
	No	22	29.7	15	23.1	37	26.6	
	No Answer	2	2.7	2	3.1	4	2.9	
13. Understand the purpose of an audit--and basic knowledge of how to audit.	Yes	61	82.4	48	73.8	109	78.4	Positive
	No	11	14.9	16	24.7	27	19.4	
	No Answer	2	2.7	1	1.5	3	2.2	
14. Become accustomed to actual business situations during the study of theory.	Yes	24	32.4	20	30.8	44	31.6	Negative
	No	48	64.9	44	67.7	92	66.2	
	No Answer	2	2.7	1	1.5	3	2.2	
15. Be able to analyze accounting data for decision-making--including ratios, rate of return, discounted cash flow, etc.	Yes	41	55.4	41	63.1	82	59.0	No Consensus
	No	30	40.5	24	36.9	54	38.8	
	No Answer	3	4.1	0	0.0	3	2.2	
16. Be able to design, implement, and administer a complete simple set of books.	Yes	57	77.0	47	72.3	104	74.8	Positive
	No	15	20.3	18	27.7	33	23.7	
	No Answer	2	2.7	0	0.0	2	1.4	

TABLE III (Continued)

ITEM	Response	NOSU Students		Transfer Students		TOTAL		Positive/ Negative/ No Consensus
		No.	Percent	No.	Percent	No.	Percent	
17. Be able to design pertinent effective management reports and the systems needed for support.	Yes	28	37.8	20	30.8	48	34.5	No Consensus
	No	42	56.8	43	66.1	85	61.2	
	No Answer	4	5.4	2	3.1	6	4.3	
18. Have a clear understanding of various accounting methods and the ability to set up an accounting method best suited for customers' business purposes--including techniques which will allow for improvement of customers' systems, business practices, etc.	Yes	26	33.1	22	33.8	48	34.5	No Consensus
	No	44	59.5	41	63.1	85	61.2	
	No Answer	4	5.4	2	3.1	6	4.3	
19. Have knowledge of cost accounting--including product costing and pricing, standard cost systems, variance reporting, and analysis.	Yes	67	90.5	53	81.5	120	86.3	Positive
	No	5	6.8	12	18.5	17	12.2	
	No Answer	2	2.7	0	0.0	2	1.4	
20. Be time-deadline conscious.	Yes	42	56.8	41	63.1	83	59.7	No Consensus
	No	30	40.5	23	35.4	53	38.1	
	No Answer	2	2.7	1	1.5	3	2.2	
21. Be able to produce accurate, neat, fast work.	Yes	48	64.9	52	80.0	100	71.9	Positive
	No	23	31.1	11	16.9	34	24.5	
	No Answer	3	4.0	2	3.1	5	3.6	
22. Have basic knowledge of the relationship of the accounting functions to the other elements of the organization.	Yes	42	56.8	36	55.4	78	56.1	No Consensus
	No	28	37.8	28	43.1	56	40.3	
	No Answer	4	5.4	1	1.5	5	3.6	
23. Know the business structure of various legal entities: corporations, partnerships, fiduciary, and sole proprietorship.	Yes	67	90.5	63	96.9	130	93.5	Positive
	No	5	6.8	2	3.1	7	5.0	
	No Answer	2	2.7	0	0.0	2	1.4	
24. Have "hands on" experience with various sets of records and journals (apprenticeship).	Yes	32	43.2	27	41.5	59	42.4	No Consensus
	No	40	54.1	38	58.5	78	56.1	
	No Answer	2	2.7	0	0.0	2	1.4	

TABLE III (Continued)

ITEM	Response	NOSU Students		Transfer Students		TOTAL		Positive/ Negative/ No Consensus
		No.	Percent	No.	Percent	No.	Percent	
25. Have knowledge of and appreciation for proper business ethics.	Yes	56	75.7	51	78.5	107	77.0	Positive
	No	15	20.3	14	21.5	29	20.8	
	No Answer	3	4.0	0	0.0	3	2.2	
B. BUSINESS CONCEPTS, SKILLS, COMPETENCIES, ETC.								
In order to be generally effective as an accountant, the individual should:								
1. Have training in the area of management decisions.	Yes	42	56.8	37	56.9	79	56.8	No Consensus
	No	29	39.2	23	35.4	52	37.4	
	No Answer	3	4.1	5	7.7	8	5.8	
2. Demonstrate effective business communications--including business letters, report writing, completion of forms--to adequately express opinions and views.	Yes	51	68.9	49	75.4	100	71.9	Positive
	No	20	27.0	11	16.9	31	22.3	
	No Answer	3	4.1	5	7.7	8	5.8	
3. Develop the technique of being a good listener.	Yes	46	62.2	36	55.4	82	59.0	No Consensus
	No	26	35.1	20	30.8	46	33.1	
	No Answer	2	2.7	9	13.8	11	7.9	
4. Have good working knowledge of the law as it relates to business situations.	Yes	60	81.2	48	73.8	108	77.7	Positive
	No	13	17.6	13	20.0	26	18.7	
	No Answer	1	1.4	4	6.2	5	3.6	
5. Be able to use quantitative tools: business mathematics and statistics.	Yes	58	78.4	48	73.8	106	76.3	Positive
	No	14	18.9	13	20.0	27	19.4	
	No Answer	2	2.7	4	6.2	6	4.3	
6. Understand basic statistical applications.	Yes	54	73.0	38	58.5	92	66.2	Positive
	No	18	24.3	22	33.8	40	28.8	
	No Answer	2	2.7	5	7.7	7	5.0	
7. Understand the how, why, and need for the free enterprise.	Yes	64	86.5	50	76.9	114	82.0	Positive
	No	9	12.2	12	18.5	21	15.1	
	No Answer	1	1.4	3	4.6	4	2.9	



TABLE III (Continued)

ITEM	Response	NOSU Students		Transfer Students		TOTAL		Positive/ Negative/ No Consensus
		No.	Percent	No.	Percent	No.	Percent	
8. Have a basic understanding of the mechanics and the possibilities of the computer.	Yes	31	41.9	22	33.8	53	38.1	No Consensus
	No	40	54.1	38	58.5	78	56.1	
	No Answer	3	4.1	5	7.7	8	5.8	
9. Have skill in the use of various business machines (adding machines, calculators, etc.).	Yes	58	78.4	54	83.1	112	80.6	Positive
	No	14	18.9	6	9.2	20	14.4	
	No Answer	2	2.7	5	7.7	7	5.0	
10. Have knowledge of finance and banking--including financing via lending institutions.	Yes	44	59.5	38	58.5	82	59.0	No Consensus
	No	27	36.5	22	33.8	49	35.3	
	No Answer	3	4.1	5	7.7	8	5.8	
11. Know information and investigative techniques.	Yes	29	39.2	30	46.2	59	42.4	No Consensus
	No	42	56.8	29	44.6	71	51.1	
	No Answer	3	4.1	6	9.2	9	6.5	
C. NONBUSINESS CONCEPTS, SKILLS, COMPETENCIES, ETC.								
In order to be generally effective as an accountant, the individual should:								
1. Be able to evaluate problems in a logical manner.	Yes	58	78.4	42	64.6	100	71.9	Positive
	No	15	20.3	17	26.2	32	23.0	
	No Answer	1	1.4	6	9.2	7	5.0	
2. Understand human behavior and human relations.	Yes	57	77.0	45	69.2	102	73.4	Positive
	No	15	20.3	15	23.1	30	21.6	
	No Answer	2	2.7	5	7.7	7	5.0	
3. Be able to read people as to their wants, desires, and objectives (public relations).	Yes	35	47.3	32	49.2	67	48.2	No Consensus
	No	36	48.6	26	40.0	62	44.6	
	No Answer	3	4.1	7	10.8	10	7.2	
4. Have some physical activity--hobbies, sports, diversions.	Yes	46	62.2	41	63.1	87	62.6	No Consensus
	No	23	31.1	17	26.2	40	28.8	
	No Answer	5	6.8	7	10.8	12	8.6	

TABLE III (Continued)

ITEM	Response	NOSU Students		Transfer Students		TOTAL		Positive/ Negative/ No Consensus
		No.	Percent	No.	Percent	No.	Percent	
5. Be able to clearly express thoughts in writing.	Yes	63	85.1	41	63.1	104	74.8	Positive
	No	10	13.5	18	27.7	28	20.1	
	No Answer	1	1.4	6	9.2	7	5.0	
6. Be able to read and absorb important information quickly.	Yes	37	50.0	33	50.8	70	50.4	No Consensus
	No	35	47.3	27	41.5	62	44.6	
	No Answer	2	2.7	5	7.7	7	5.0	
7. Be knowledgeable in the use of the English language; possess speaking skills sufficient to orally convey his thoughts, including good grammar.	Yes	63	85.1	47	72.3	110	79.1	Positive
	No	10	13.5	13	20.0	23	16.5	
	No Answer	1	1.4	5	7.7	6	4.3	
8. Be able to write English correctly, including punctuation, spelling, and good penmanship.	Yes	60	81.1	42	64.6	102	73.4	Positive
	No	13	17.6	17	26.2	30	21.6	
	No Answer	1	1.4	6	9.2	7	5.0	
9. Possess good listening ability.	Yes	48	64.9	36	55.4	84	60.4	No Consensus
	No	23	31.1	24	37.0	47	33.8	
	No Answer	3	4.1	5	7.7	8	5.8	
10. Be able to communicate with personnel without accounting training--to convert accounting terminology to understandable lay conversation.	Yes	40	54.1	32	49.2	72	51.8	No Consensus
	No	33	44.6	28	43.1	61	43.9	
	No Answer	1	1.4	5	7.7	6	4.3	

\*To nearest one-tenth of one percent

\*\*Consensus considered to be 66%

\*\*\*Nontransfer students

available material," and "Needs improvement." These answers infer that the item listed was available to some extent.

Also, some of the transfer students apparently answered "No" to some items because they took the courses providing the concept at another college--even though the course making provision at the other college was a course required of all accounting majors at NOSU. For example, one "No" respondent commented, "Courses for these areas [nonbusiness] were taken at TU [University of Tulsa] but were probably available at NOSU." Some transfer students also did not answer some statements other than to name the college at which the concept was obtained.

For those items which were not responded to, it is supposed that either the graduate was uncertain of the meaning of the statement, the concept was gained at another college, or that the concept was not available to a degree sufficient for the graduate to remember. Therefore, unanswered items were ignored in the tabulation of the data.

Although all accounting majors must take certain required courses, general education requirements for transfer students differ somewhat from general education requirements for students who attend only Northeastern Oklahoma State University. Responses of transfer students were listed separately so that an evaluation of the NOSU general education curriculum could be determined.

To obtain more specific information concerning provisions made for the essential items (Question B), graduates who answered "Yes" provision was made for this item were further asked to identify the course or courses that provided an opportunity for the concept, competency, skill, or technique to be acquired. The analyses of responses to this question were divided into the three broad categories of accounting, nonaccounting business, and nonbusiness.

## Accounting

The degree program at Northeastern Oklahoma State University required the following accounting courses in the major area: Principles of Accounting, 6 semester hours; Intermediate Accounting, 6 semester hours; Income Tax Accounting, 3 semester hours; and, elective Accounting courses, 9 semester hours.

There were 25 accounting items on which the panel of experts reached consensus as being essential in a desirable accounting curriculum. In answer to the question "was provision made" for these 25 items, the 139 graduates who participated in the study reached positive consensus on 15 items at the 66% level; negative consensus was attained on one item at the 66% level; and no consensus was reached on the remaining eight items. Table III, pages 47-50 only, shows the consensus of graduates on the 25 essential accounting concepts, skills, techniques, and competencies.

Table IV, pages 55-59, lists the courses in the curriculum that provided the accounting concepts as determined by participants in the study. Some participants listed more than one course as providing opportunity for the item; therefore, there are more total courses listed than total "Yes" answers.

An individual analysis of the accounting items and courses providing these concepts, skills, techniques, and competencies, revealed the following:

Item 1: Possess a clear understanding of the purposes for which books and records are kept.

Positive (Yes) consensus was reached by 95.7% of the 139 participants in this phase of the study. Of the 133 individuals who

TABLE IV

RESULTS OF GRADUATES' LISTING OF COURSES IN THE CURRICULUM WHICH PROVIDED THE NECESSARY ACCOUNTING CONCEPTS, SKILLS, TECHNIQUES, AND COMPETENCIES FOR ACCOUNTANTS

Concepts, Skills, Techniques, and Competencies	Group Responding	Number of Graduates Listing Course as Providing Opportunity										Other Courses (Not Separated by Group)	
		Principles	Intermediate	Cost	Auditing	Tax	Advanced	Consolidated	Muni pal	All Accounting	None Listed		
1. Possess a clear understanding of the purposes for which books and records are kept.	NOSU*	63	6	0	2	2	2	0	0	2	1	Intro. Bus.	1
	Transfer	53	3	3	0	1	1	0	0	1	6		
	Total	116	9	3	2	3	1	0	0	3	7		
2. Have a thorough knowledge of generally accepted accounting principles.	NOSU	43	23	0	12	0	6	0	0	4	2		
	Transfer	28	28	1	8	0	4	0	0	1	7		
	Total	71	51	1	20	0	10	0	0	5	9		
3. Have a thorough understanding of accounting principles--be consistent in application, but flexible in problem solving.	NOSU	16	33	0	6	0	13	1	0	2	4		
	Transfer	21	31	3	1	0	6	1	0	0	2		
	Total	37	64	3	7	0	19	2	0	2	6		
4. Have an understanding of the objectives of financial and management accounting and reporting, and the needs and expectations of users of financial statements.	NOSU	10	21	6	5	0	12	3	0	3	2	Management	3
	Transfer	11	24	2	5	1	6	1	2	1	7		
	Total	21	45	8	10	1	18	4	2	4	9		
5. Have an understanding of the basic concepts and accounting principles and underlying financial statements of business enterprises.	NOSU	20	28	2	4	0	9	4	0	2	9		
	Transfer	21	19	2	5	1	7	2	1	1	7		
	Total	41	47	4	9	1	16	6	1	3	16		
6. Have skills in preparing and interpreting financial statements.	NOSU	11	26	2	10	0	14	5	0	9	3	Corp. Fin.	1
	Transfer	17	33	3	8	1	5	5	2	2	6		
	Total	28	59	5	18	1	19	10	2	11	9		

TABLE IV (Continued)

Concepts, Skills, Techniques, and Competencies	Group Responding	Number of Graduates Listing Course as Providing Opportunity										Other Courses (Not Separated by Group)	
		Principles	Intermediate	Cost	Auditing	Tax	Advanced	Consolidated	Municipal	All Accounting	None Listed	Course	No.
7. Have a concept of accounting items in relationship to various businesses.	NOSU	5	9	5	1	0	6	0	1	7	5	Economics	2
	Transfer	7	16	4	1	1	2	1	1	3	8	Management	1
	Total	12	25	9	2	1	8	1	2	10	13	Business Law	1
												Marketing	1
8. Have the ability to understand and follow through the program from basic input of the available data to production of comprehensible financial statements.	NOSU	16	12	4	4	0	6	2	0	10	7	Economics	1
	Transfer	18	32	3	7	0	4	0	0	3	10	Prac. Sets	1
	Total	34	44	7	11	0	10	2	0	13	17		
9. Have basic knowledge of budgeting.	NOSU	1	4	15	0	0	4	0	4	4	4	Economics	2
	Transfer	3	5	11	0	0	0	0	4	0	7	Marketing	1
	Total	4	9	26	0	0	4	0	8	4	11	Personal Fin.	2
												Corp. Fin.	1
10. Have basic knowledge of internal controls--including payroll procedures.	NOSU	9	7	6	35	1	0	0	0	4	1	Management	2
	Transfer	8	9	2	20	0	0	0	0	2	7	Intro. Bus.	1
	Total	17	16	8	55	1	0	0	0	6	8	Management	3
												Bus. Math.	1
11. Know how to use tax services for researching a problem.	NOSU	0	0	0	1	42	0	0	0	0	1		
	Transfer	0	0	0	0	37	0	0	0	0	5		
	Total	0	0	0	1	79	0	0	0	0	6		
12. Have an understanding of tax laws and of their effect on accounting decisions.	NOSU	0	1	0	0	46	0	0	0	1	1	Business Law	2
	Transfer	0	1	0	0	43	0	0	0	0	5	Intro. Bus.	1
	Total	0	2	0	0	89	0	0	0	1	6		

TABLE IV (Continued)

Concepts, Skills, Techniques, and Competencies	Group Responding	Number of Graduates Listing Course as Providing Opportunity										Other Courses (Not Separated by Group)	
		Principles	Intermediate	Cost	Auditing	Tax	Advanced	Consolidated	Municipal	All Accounting	None Listed	Course	No.
13. Understand the purpose of an audit-- and basic knowledge of how to audit.	NOSU	0	1	0	54	0	1	0	0	2	3		
	Transfer	0	1	0	42	0	0	0	1	0	4		
	Total	0	2	0	96	0	1	0	1	2	7		
14. Become accustomed to actual business situations during the study of theory.	NOSU	2	6	0	2	0	2	0	0	6	3	Marketing	3
	Transfer	4	7	1	1	1	1	0	1	1	2	Management	3
	Total	6	13	1	3	1	3	0	1	7	5	Intro. Bus.	3
15. Be able to analyze accounting data for decision-making--including ratios, rate of return, discounted cash flow, etc.	NOSU	4	17	11	2	0	6	0	0	3	2	Management	4
	Transfer	6	22	8	4	1	6	1	0	2	4	Economics	1
	Total	10	39	19	6	1	12	1	0	5	6	Marketing	1
												Statistics	2
												Bus. Math.	2
16. Be able to design, implement, and administer a complete simple set of of books.	NOSU	33	15	0	5	0	5	1	0	6	7	Management	1
	Transfer	31	15	1	3	0	3	1	0	4	5		
	Total	64	30	1	8	0	8	1	0	10	12		
17. Be able to design pertinent effective management reports and the systems needed for support.	NOSU	0	8	5	7	0	5	0	0	2	4	Management	5
	Transfer	2	4	2	1	0	4	1	0	2	3	Intro. Bus.	1
	Total	2	12	7	8	0	9	1	0	4	7	Economics	1
												Communications	3
18. Have a clear understanding of various accounting methods and the ability to set up an accounting method best suited for customers' business purposes--including techniques which will allow for improve- ment of customers' systems, business practices, etc.	NOSU	3	10	4	3	1	6	0	0	4	4	Small Bus.	
	Transfer	2	9	1	2	0	4	0	0	4	5	Institute	1
	Total	5	19	5	5	1	10	0	0	8	9	Management	1

TABLE IV (Continued)

Concepts, Skills, Techniques, and Competencies	Group Responding	Number of Graduates Listing Course as Providing Opportunity										Other Courses (Not Separated by Group)	
		Principles	Intermediate	Cost	Auditing	Tax	Advanced	Consolidated	Municipal	All Accounting	None Listed	Course	No.
19. Have knowledge of cost accounting-- including product costing and pricing, standard cost systems, variance reporting, and analysis.	NOSU	0	0	64	0	0	1	0	0	0	2		
	Transfer	1	0	52	0	0	0	0	0	0	4		
	Total	1	0	112	0	0	1	0	0	0	6		
20. Be time-deadline conscious.	NOSU	7	3	4	10	1	3	0	0	10	8	Prac. Sets	4
	Transfer	10	6	2	7	3	1	1	0	1	10	All Business	2
	Total	17	9	6	17	4	4	1	0	11	18		
21. Be able to produce accurate, neat, fast work.	NOSU	11	2	0	3	0	2	0	0	19	8	Bus. Comm.	2
	Transfer	9	4	0	4	2	0	1	0	16	11	Prac. Sets	2
	Total	20	6	0	7	2	2	1	0	35	19	Machines	2
												All Business	2
22. Have basic knowledge of the relationship of the accounting functions to the other elements of the organization.	NOSU	7	6	3	2	0	2	0	0	7	9	Management	10
	Transfer	5	9	1	6	1	2	1	1	8	7	Finance	1
	Total	12	15	4	8	1	4	1	1	15	16	Economics	2
												Business Law	2
												Intro. Bus.	2
												Marketing	2
23. Know the business structure of various legal entities: corporations, partner- ships, fiduciary, and sole proprietorship.	NOSU	17	16	1	2	5	10	5	1	8	5		
	Transfer	14	9	0	0	8	14	1	0	1	10		
	Total	31	27	1	2	13	24	6	1	9	15		
24. Have "hands on" experience with various sets of records and journals (apprentice- ship).	NOSU	13	3	3	8	0	1	0	0	4	2	Prac. Sets	11
	Transfer	12	2	4	6	0	0	0	2	0	7	Small Bus.	
	Total	25	5	7	14	0	1	0	2	4	9	Institute	1



TABLE IV (Continued)

Concepts, Skills, Techniques, and Competencies	Group Responding	Number of Graduates Listing Course as Providing Opportunity											Other Courses (Not Separated by Group)	
		Principles	Intermediate	Cost	Auditing	Tax	Advanced	Consolidated	Municipal	All Accounting	None Listed	Course	No.	
25. Have knowledge of and appreciation for proper business ethics.	NOSU	6	2	0	23	0	1	1	0	9	5	Intro. Bus.	5	
	Transfer	3	6	2	13	2	0	1	0	7	12	Management	9	
	Total	9	8	2	36	2	1	2	0	16	17	Business Law	15	
												All Business	5	
												Bus. Comm.	1	
												Human Rel.	1	

\*Nontransfer students

answered "Yes," 116 identified Accounting Principles and 9 identified Intermediate Accounting as providing opportunity for this concept. Both of these courses were required of all accounting majors.

Item 2: Have a thorough knowledge of generally accepted accounting principles.

Positive consensus was reached by 91.4% of the respondents. Of the 127 individuals who agreed that provision was made for this item, 51% listed Accounting Principles, 37% listed Intermediate Accounting, and 14% listed Auditing. As previously stated, both Accounting Principles and Intermediate Accounting were required courses. Although Auditing was not required, it was recommended to accounting majors.

Item 3: Have a thorough understanding of accounting principles--be consistent in application, but flexible in problem solving.

Positive consensus was attained for this item. Of the 139 participants, 115, or 82.7%, answered "Yes." The broad theory courses were listed most frequently. Of the "Yes" respondents, 56% identified Intermediate Accounting, 32% identified Accounting Principles, and 17% listed Advanced Accounting as making provision for this competency. Advanced Accounting was not a required course.

Item 4: Have an understanding of the objectives of financial and management accounting and reporting, and the needs and expectations of users of financial statements.

Of the 139 participants, 101 (72.7%) answered "Yes" to this item; Accounting Principles (21%), Intermediate Accounting (45%), and Advanced Accounting (18%) were the courses identified most frequently as the courses which provided for this concept. All accounting courses were mentioned by one or more of the respondents. This wide course listing

might indicate that this concept was covered, at least to some extent, in most accounting courses.

Item 5: Have an understanding of the basic concepts and accounting principles underlying financial statements of business enterprises.

Positive consensus was reached at 86.3% on this item. Again, the broad theory courses of Accounting Principles, Intermediate Accounting, and Advanced Accounting were listed most frequently. Of the 120 "Yes" respondents, 34% listed Accounting Principles, 39% listed Intermediate Accounting, and 13% listed Advanced Accounting as the courses providing this basic concept.

Item 6: Have skills in preparing and interpreting financial statements.

The 116 "Yes" answers resulted in positive consensus at 83.5% for this item. General theory courses provided opportunity for this skill, but each of the other accounting courses was mentioned at least once. Opportunity for obtaining this skill was evidently provided by all accounting courses to some extent. Accounting Principles, Intermediate Accounting, Auditing, and Advanced Accounting represented 77% of the courses listed by the "Yes" respondents.

Item 7: Have a concept of accounting items in relationship to various businesses.

Only 53.2% of the 139 participants agreed that provision was made for this concept. Although 34% of the 74 "Yes" respondents (18% of all participants) identified Intermediate Accounting as the course providing this concept, the lack of general consensus was also evidenced by the wide variety of courses listed. Forty percent of the "Yes" respondents either did not list a specific course or listed courses that were not

required of all accounting majors. This fact suggests that the concept, when acquired, was only incidental to any particular course.

Item 8: Have the ability to understand and follow through the program from basic input of the available data to production of comprehensible financial statements.

Positive consensus was attained at 76.3% as 106 answered "Yes" to this item. Of the 106, 32% listed Accounting Principles, 42% listed Intermediate Accounting--with Advanced Accounting and Auditing also being listed by several individuals. Approximately 12% stated that all accounting courses provided for this competency.

Item 9: Have basic knowledge of budgeting.

No consensus was reached on this accounting item. Of the 139 participants, 67 answered "Yes," 68 answered "No," and 4 did not answer. Of the 67 who answered in the affirmative, Cost Accounting was identified by 26 (39%) as the course providing the concept. As further evidence of the lack of consensus, 8 (12%) identified courses outside accounting. Eighteen participants, 27% of the "Yes" respondents, identified courses that were not required, and an additional 11 (16%) did not identify any specific course as making provision for the concept. Cost Accounting was not required of all accounting majors.

Item 10: Have basic knowledge of internal controls--including payroll procedures.

Positive consensus was reached by 75.5% of the participants. Of the 105 respondents who answered "Yes" to this item, 55 (52%) identified Auditing as providing the concept. Principles and Intermediate Accounting were each listed by approximately 16% of the "Yes" respondents. While Auditing seemingly was the course providing most emphasis on this concept, it was not a course which was required of all accounting majors.

Item 11: Know how to use tax services for researching a problem.

Only 61.9% of the 139 participants answered "Yes" to Item 11; therefore, a consensus was not reached. Of the individuals who answered "Yes," 92% identified Income Tax Accounting as making provision for this skill to be obtained. Since Income Tax I was required of all accounting majors, two alternatives could be possible explanations for the lack of higher consensus: (1) The skill may have been provided by Advanced Income Tax which was not a required course; or (2) Instructional techniques of the accounting educators may have differed, and as a result this skill may not have been provided in some instances.

Item 12: Have an understanding of tax laws and of their effect on accounting decisions.

Positive consensus was also attained for Item 12. Ninety-eight (70.5%) answered "Yes" to this item. Of these 98 individuals, 89 (91%) identified Income Tax Accounting as the course providing this understanding. Income Tax I was required of all accounting majors.

Item 13: Understand the purpose of an audit--and basic knowledge of how to audit.

One hundred nine of the 139 respondents agreed that this concept and technique had been provided by the accounting curriculum. This number resulted in positive consensus at 78.4%. Of these "Yes" respondents, 88% agreed that Auditing was the course making the provision. Some comments which were made by respondents who answered "No" to this item were to the effect that they had not taken Auditing. Only four people listed courses other than Auditing, and two listed "All" accounting as providing the item. Again, Auditing was not a required accounting course.

Item 14: Become accustomed to actual business situations during the study of theory.

Negative consensus was reached when 92 (66.2%) of the 139 respondents answered "No" to this item. Of the 44 participants who answered "Yes," Intermediate Accounting was mentioned by 13 as the course providing opportunity for this competency. Marketing, Management, and Introduction to Business were each listed three times. The scattered response--through both accounting and other business courses--might suggest that the concept was gained incidentally, possibly through instructional techniques of the educators, rather than through subject matter of a specific course.

Item 15: Be able to analyze accounting data for decision-making--including ratios, rate of return, and discounted cash flow.

Only 59.0% (82) of the participants agreed that provision was made for Item 15; therefore, no consensus was obtained. This low rate of agreement was further noticeable in the scattered listing of courses identified as making provision for this competency. While Intermediate Accounting was listed by 48% of the "Yes" respondents and 23% listed Cost Accounting, 11% listed courses other than accounting and 33% listed courses that were not required of accounting majors.

Item 16: Be able to design, implement, and administer a complete simple set of books.

Positive consensus was reached by 74.8% of the participants in this phase of the study. Of the 104 "Yes" respondents, 62% identified Accounting Principles and 29% identified Intermediate Accounting as the course providing this competency. An additional 10% stated that "All" accounting courses furnished opportunity for this competency to be acquired.

Item 17: Be able to design pertinent effective management reports and the systems needed for support.

No consensus was reached on Item 17, with 61.2% of the participants responding negatively. Of the 48 individuals who answered "Yes" to this question, 12 (25%) listed Intermediate Accounting as the course which supplied opportunity for this skill. However, the courses listed were widely scattered; and of those courses listed, 27 responses did not name required courses and an additional 7 individuals did not list a specific course.

Item 18: Have a clear understanding of various accounting methods and the ability to set up an accounting method best suited for customers' business purposes--including techniques which will allow for improvement of customers' systems, and business practices.

Only 61.2% of the respondents were in agreement, negatively, on Item 18; therefore, consensus was not reached. Further analysis of the responses revealed that the courses listed by the "Yes" respondents were scattered. This technique was listed as having been provided for by 48 individuals; of this group, 19 (40%) identified Intermediate Accounting and 10 (21%) identified Advanced Accounting as the course making provision. These two courses, however, represented only 15% and 7%, respectively, of the total participants in this phase of the study.

Item 19: Have knowledge of cost accounting--including product costing and pricing, standard cost systems, variance reporting, and analysis.

Positive consensus, 86.3%, was attained on this competency. Of the 120 "Yes" respondents, 112 (93%) stated that Cost Accounting supplied opportunity for this competency to be acquired. Of the remaining eight individuals, six listed no course. It appeared that there was almost unanimous consensus that Cost Accounting provided this essential

competency. Cost Accounting was not required of all accounting majors, and it is possible that some of the 17 "No" respondents did not take this particular course.

Item 20: Be time-deadline conscious.

No consensus was reached for Item 20. While only 59.7% of the 139 participants agreed that this concept was provided, the scattered course listing ("All" accounting, "All" business, practice sets, and no specific course named represented 42% of the "Yes" respondents) seemed to indicate that the concept pervaded the entire curriculum--incidental to various courses--rather than having been stressed in a particular course.

Item 21: Be able to produce accurate, neat, fast work.

Of the 139 respondents, 100 (71.9%) agreed that provision was made for this technique. Twenty-nine percent identified Accounting Principles and 35% stated "All" accounting courses provided the opportunity. Other courses which were listed indicated that perhaps this technique was incorporated in numerous business courses as well as in several accounting courses.

Item 22: Have basic knowledge of the relationship of the accounting functions to the other elements of the organization.

Only 56.1% agreed that provision was made for Item 22; therefore, no consensus was reached. Thirty-three of the courses listed by "Yes" respondents were courses which were not required of all accounting majors, and an additional 16 individuals did not list any particular course. Again, the weak agreement, plus the wide course listing, suggested that the concept was supplied incidentally in diverse courses.



Item 23: Know the business structure of various legal entities: corporations, partnerships, fiduciary, and sole proprietorship.

The second highest percentage of agreement was attained on Item 23. One hundred thirty (93.5%) answered "Yes" to this item. However, while only accounting courses were noted as providing this concept, there was no consensus reached on a specific course as being the one supplying the opportunity. Accounting Principles (27%), Intermediate Accounting (24%), Advanced Accounting (21%), and Income Tax Accounting (11%) accounted for 83% of the courses listed. Advanced Accounting was not a required course.

Item 24: Have "hands on" experience with various sets of records and journals (apprenticeship).

No consensus was reached on Item 24; 56.1% of the respondents answered "No" to this item. Of the courses listed by the 59 "Yes" respondents, practice sets accounted for 14%, Accounting Principles accounted for 32%, and Auditing accounted for 18%. Both Accounting Principles and Auditing required practice sets, and it is possible that those respondents who listed these courses had the practice sets in mind as being the tool providing this experience.

Item 25: Have knowledge of and appreciation for proper business ethics.

Positive consensus was reached when 107 (77%) of the participants answered "Yes" to this item. Although 34% of the "Yes" respondents identified Auditing as making provision for this concept, most of the other accounting courses, as well as a number of other business courses, were also listed. Business Law was listed by 14% of the "Yes" respondents. Business Law was required of all accounting majors. The variety

of courses which were listed suggests that this concept was presented in several business courses--either as basic subject matter or as an incidental item provided through the instructional techniques of the educators.

Summary. According to participants' replies with respect to the 25 essential accounting skills, concepts, techniques, and competencies;

(1) Positive consensus was reached on 15 items; therefore, the graduates believe that NOSU is effectively providing these items.

(2) Negative consensus was reached on one item; hence, according to graduates' responses, NOSU is not effectively providing for this item.

(3) No consensus was reached on the remaining nine items; therefore, graduates are of the opinion that while some provision is being made, NOSU is not effectively providing for these items.

#### Nonaccounting Business

The degree program at Northeastern Oklahoma State University included the following required nonaccounting business courses in the accounting major: Economics, 6 semester hours; and Business Law, 6 semester hours. In addition, the accounting major was to have as one of his two minors either Economics or Business. Business in this instance could be Business Administration, Secretarial Training, Marketing, Management, or Computer Science. However, the accounting major could elect to have a second major in lieu of the two minors. This second major was not restricted to any particular subject area.

The panel of experts concluded that there were eleven essential nonaccounting business items that should be included in a desirable accounting curriculum. The 139 graduates of the program who participated

in the evaluation of the accounting curriculum attained 66% positive consensus on six of these eleven items, and no consensus was reached on the remaining five items. Table III, pages 50 and 51 only, includes the summary of consensus attained on each of these nonaccounting business items.

Table V, pages 70-71, summarizes the results of the survey concerning the courses identified as providing opportunity for these essential nonaccounting concepts, skills, competencies, and techniques. Some participants listed more than one course, so there are more total courses listed than total "Yes" answers. Also, since there was such a varied response in course listings for this curriculum area, those courses which were mentioned fewer than three times were classified together as "Various Accounting," "Various Business," or some other similar grouping.

An item by item analysis of this portion of the degree program, including the listing of courses which supplied opportunity for the concept, skill, technique, or competency, revealed the following information:

Item 1: Have training in the area of management decisions.

No consensus was reached on this item since only 56.8% answered "Yes" to Item 1. Forty-five of the 79 "Yes" respondents (57%) listed Principles of Management as providing opportunity for this training. An additional 18% of this group of participants listed other management courses. The accounting major curriculum did not require any course in Management.

TABLE V

RESULTS OF GRADUATES' LISTING OF COURSES IN THE CURRICULUM  
WHICH PROVIDED THE NECESSARY BUSINESS CONCEPTS,  
SKILLS, TECHNIQUES, AND COMPETENCIES  
FOR ACCOUNTANTS

Concepts, Skills, Techniques, and Competencies	Courses	Number of Graduates Listing the Courses		
		NOSU*	Trans- fer	Total
1. Have training in the area of management decisions.	Principles of Management	24	21	45
	Small Business Management	6	4	10
	Various Business courses	7	3	10
	Various Accounting	4	5	9
	Various Management	1	3	4
	No course listed	6	8	14
2. Demonstrate effective business communications--including busi- ness letters, report writing, completion of forms--to adequately express opinions and views.	Business Communications	43	34	77
	English	3	3	6
	Auditing	3	3	6
	Typewriting	3	0	3
	Speech	2	1	3
	Various Business courses	1	3	4
3. Develop the technique of being a good listener.	No course listed	4	10	14
	All courses	17	10	27
	Business Communications	5	7	12
	Speech	4	4	8
	Salesmanship	3	1	4
	Various Business courses	6	4	10
4. Have good working knowledge of the law as it relates to business situations.	Miscellaneous General Ed.	2	0	2
	No course listed	9	10	19
	Business Law	54	43	97
	Various Accounting	0	4	4
	No course listed	6	4	10
	Statistics	36	26	62
5. Be able to use quantitative tools: business mathematics and statistics	Business Mathematics	26	23	49
	Math of Accounting	4	3	7
	Mathematics courses	2	4	6
	Various Business courses	6	3	9
	No course listed	6	4	10
	Statistics	46	30	76
6. Understand basic statistical applications.	Business Mathematics	5	3	8
	Mathematics courses	1	1	2
	Various Business courses	3	3	6
	No course listed	4	4	8
	Statistics	46	30	76

TABLE V (Continued)

Concept, Skills, Techniques, and Competencies	Courses	Number of Graduates Listing the Courses		
		NOSU	Trans-fer	Total
7. Understand the how, why, and need for the free enterprise system.	Economics	34	24	58
	Introduction to Business	11	3	14
	Management courses	3	5	8
	Political Science/History	1	5	6
	Various Business courses	7	6	13
	Business Law	1	3	4
8. Have a basic understanding of the mechanics and the possibilities of the computer.	No course listed	10	9	19
	Introd. to Computer Sci.	23	14	37
	Cobol	7	2	9
	Other Computer Science	2	2	4
	Accounting	3	0	3
	No course listed	2	7	9
9. Have skill in the use of various business machines (adding machines, calculators, etc.)	Business Machines	52	46	98
	No course listed	6	8	14
10. Have knowledge of finance and banking--including financing via lending institutions.	Money & Banking	16	11	27
	Personal Finance	10	10	20
	Corporation Finance	3	4	7
	Business Finance	3	2	5
	Economics	7	3	10
	Various Business courses	4	6	10
	No course listed	7	7	14
11. Know information and investigative techniques.	Auditing	14	9	23
	Tax	2	3	5
	Various Accounting	0	4	4
	Various Business courses	10	10	20
	No course listed	7	7	14

\*Nontransfer students

Item 2: Demonstrate effective business communications--including business letters, report writing, completion of forms--to adequately express opinions and views.

Positive consensus was attained at 71.9% on this item. Of the 100 respondents who answered "Yes" to this item, 77 identified Business Communications as providing the competency. This course was not required in the accounting major; however, it was frequently recommended to accounting majors as a desirable business elective. Apparently most accounting majors did take Business Communications.

Item 3: Develop the technique of being a good listener.

Only 59% of the participants agreed that opportunity was available for this technique to be obtained; therefore, no consensus was reached on Item 3. One-third of the "Yes" respondents stated that "all courses" provided opportunity--the wide variety of other courses which was listed tended to support this idea.

Item 4: Have good working knowledge of the law as it relates to business situations.

Positive consensus (77.7%) was reached on Item 4. Consensus was also reached by 92% of the "Yes" respondents that Business Law was the course that gave opportunity for this concept. Business Law was required in the accounting major.

Item 5: Be able to use quantitative tools: business mathematics and statistics.

Positive agreement of 76.3% of the participants was arrived at on this item. Of the 106 "Yes" respondents, 62 (58%) listed Statistics and 49 (46%) listed Business Mathematics as courses providing opportunity for this skill to be obtained. Business Statistics was made

available at Northeastern Oklahoma State University in 1970. Comments made by some of the "No" respondents included the fact that Statistics was not offered during their attendance at the university. Neither Statistics nor Business Mathematics was required for accounting majors, but it appears that most accounting majors took at least one of these two courses.

Item 6: Understand basic statistical applications.

Of the 139 participants, 92 answered "Yes" to Item 6, resulting in positive consensus at 66.2%. Eighty-three percent of these "Yes" respondents agreed that Statistics provided opportunity for this essential understanding to be acquired.

Item 7: Understand the how, why, and need for the free enterprise.

The highest positive consensus (82%) for any of the nonaccounting business items was reached on Item 7. However, only 58 of the "Yes" respondents agreed on a specific course as providing opportunity for this concept. Economics was listed by 51%, and the other courses which were listed were varied. Economics was required of all accounting majors.

Item 8: Have a basic understanding of the mechanics and the possibilities of the computer.

"No" was the answer given by 56.1% of the respondents with respect to Item 8. A possible explanation for this lack of consensus is that Computer Science was first offered at Northeastern Oklahoma State University in the spring semester of 1973. Several "No" respondents commented that Computer Science courses were not offered at NOSU while they were in attendance. No attempt was made to obtain consensus

information for before or after the addition of Computer Science to the curriculum. Ninety-four percent of the courses listed for this item were computer science courses, with 70% being Introduction to Computer Science. Accounting was listed by only three "Yes" respondents. Computer Science was not a required course.

Item 9: Have skill in the use of various business machines (adding machines, calculators).

Positive consensus was attained at 80.6% when 112 participants answered "Yes" to Item 9. Business Machines was listed by 98 individuals as the course providing opportunity for this skill, and the remaining 14 individuals did not list any specific course. Although Business Machines was not required of accounting majors, many of them apparently took this course.

Item 10: Have knowledge of finance and banking--including financing via lending institutions.

Only 59.0% of the participants answered "Yes" to Item 10; therefore, no consensus was reached. Economics courses were listed by 45% of the "Yes" respondents, with Money and Banking representing 73% of the Economics courses mentioned. Personal Finance was listed by 24% of the "Yes" respondents, and 15% listed other finance courses. While Macroeconomics and Microeconomics were required, neither Money and Banking nor Personal Finance was required in the accounting curriculum.

Item 11: Know information and investigative techniques.

Only 51.1% of the 139 participants agreed, negatively, on this item; no consensus was reached. Auditing was the course listed most frequently by the "Yes" respondents. Twenty-three (39%) of this group of individuals identified this course as providing opportunity for this



technique to be developed. Various other courses were listed, but none was identified by more than five respondents. Auditing was not required of accounting majors.

Summary. According to replies of participants in this study with regard to the eleven essential nonaccounting business skills, concepts, techniques, and competencies:

(1) Positive consensus was reached on six items; therefore, the graduates believe that NOSU is effectively providing these items.

(2) No consensus was reached on the remaining five items; hence, according to students' responses, while some provision may be made, NOSU is not effectively providing for these items.

#### Nonbusiness

The general education (nonbusiness) requirements for Bachelor of Science degree candidates varied between transfer and nontransfer students because of an articulation agreement between Northeastern Oklahoma State University and junior colleges located in the state of Oklahoma. The substance of the articulation agreement, with respect to general education requirements, is that transfer students who have received the Associate of Arts or Associate of Science degree from an Oklahoma junior college are not required to take all of the general education courses prescribed by Northeastern Oklahoma State University. Only transfer students graduating from an Oklahoma junior college are included under this agreement. All other transfer students must complete the NOSU general education degree requirements. A summary of the general education requirements is found in Table VI, page 76.

TABLE VI

GENERAL EDUCATION REQUIREMENTS FOR BACHELOR OF SCIENCE  
DEGREE AT NORTHEASTERN OKLAHOMA STATE UNIVERSITY

Courses	NOSUP**	Transfer Students	
		Tulsa Junior College	Other Oklahoma Junior Colleges
Language Arts	6 Sem. Hrs.	At least one course	6 Sem. Hrs.
American History/ Government	6 Sem. Hrs.	6 Sem. Hrs.	6 Sem. Hrs.
Life/Physical Science	6-8 Sem. Hrs.		6-8 Sem. Hrs.
Mathematics/Science		At least one course	
Humanities	5-6 Sem. Hrs.		5 Sem. Hrs.
Humanities/Fine Arts		At least one course	
Health/Physical Ed.	4 Sem. Hrs.		
Orientation	1 Sem. Hr.		
Elective courses:	At least one course from each of three of the following areas: Language Arts Social Science Mathematics Fine Arts Health Educ. Foreign Lang. Practical Arts Business Psychology	Not more than 12 hours in any one area above.	One 2-hour course from each of two of the following: Mathematics Art/Music/Drama Foreign Lang. Practical Arts Psychology Other courses in the above areas-- 4 Sem. Hrs.
Minimum semester hours required	37*	33	33

\*Exclusive of Orientation

\*\*Nontransfer students and transfer students who did not complete a degree  
at an Oklahoma junior college

No attempt was made to investigate where transfer students had attended college, specific courses they had taken at previous colleges, whether they had graduated from a junior college, or the dates of their attendance. Therefore, only a few general comments concerning transfer students can be made in the analysis of this part of the accounting major curriculum. These comments will be included in the item analyses.

The panel of experts reached consensus at the 66% level on ten nonbusiness concepts, skills, techniques, and competencies. Of these ten essential items, the graduates who participated in the study attained 66% positive consensus on five items; no consensus was reached on the remaining five items. Table III, pages 51 and 52 only, shows the results of the graduates' answers to the question of whether opportunity was provided for the essential concepts, skills, techniques, and competencies in the general education portion of the curriculum.

A summary of the answers to the question of what course or courses in the curriculum provided opportunity for the essential objectives is found in Table VII, pages 78-79. A few of the graduates listed more than one course as providing opportunity for the item; therefore, there are more total courses listed than total "Yes" answers. There were so many different courses listed for some items that, in most instances, if the course was listed fewer than three times, it was tabulated as "various courses," "general education courses," or some other similar group heading.

An item by item investigation of this section of the curriculum disclosed the following information:

Item 1: Be able to evaluate problems in a logical manner.

TABLE VII

RESULTS OF GRADUATES' LISTING OF COURSES IN THE CURRICULUM  
WHICH PROVIDED THE NECESSARY NONBUSINESS CONCEPTS,  
SKILLS, TECHNIQUES, AND COMPETENCIES  
FOR ACCOUNTANTS

Concept, Skills, Techniques, and Competencies	Courses	Number of Graduates Listing the Courses		
		NOSU*	Trans-fer	Total
1. Be able to evaluate problems in a logical manner.	Auditing	7	4	11
	Other Accounting courses	8	13	21
	Data Processing	5	0	5
	Mathematics	5	1	6
	Various/All college courses	14	4	18
	Various Business courses	8	7	15
	Psychology/Sociology	3	2	5
2. Understand human behavior and human relations.	No course listed	17	16	33
	Psychology	22	15	37
	Human Relations	10	14	24
	Sociology	6	4	10
	General Education courses	5	4	9
	Various Business courses	4	1	5
	Management	4	2	6
3. Be able to read people as to their wants, desires, and objectives (public relations).	No course listed	13	12	25
	Psychology	9	8	17
	Management	4	3	7
	Sociology	4	1	5
	Human Relations	0	5	5
	Marketing	5	1	6
	Various Business courses	7	5	12
4. Have some physical activity--hobbies, sports, diversions.	No course listed	13	11	24
	Physical Education	26	17	43
	Clubs, Fraternities, etc.	1	1	2
	Various General Educ.	5	5	10
5. Be able to clearly express thoughts in writing.	No course listed	14	20	34
	English	36	17	53
	Business Communications	21	15	36
	Various courses	6	4	10
6. Be able to read and absorb important information quickly.	No course listed	11	10	21
	Developmental Reading	9	6	15
	English	7	5	12
	Business Communications	3	1	4
	Test Situations	2	1	3
	Various Business/Accounting	2	3	5
	All College courses	7	6	13
	No course listed	10	10	20

TABLE VII (Continued)

Concept, Skills, Techniques, and Competencies	Courses	Number of Graduates Listing the Courses		
		NOSU	Trans-fer	Total
7. Be knowledgeable in the use of the English language; possess speaking skills sufficient to orally convey his thoughts, including good grammar.	English	42	23	65
	Speech	27	17	44
	Business Communications	12	2	14
	All College courses	2	1	3
8. Be able to write English correctly, including punctuation, spelling, and good penmanship.	No course listed	15	14	29
	English	48	25	73
	Business Communications	13	7	20
	Shorthand	1	0	1
9. Possess good listening ability.	No course listed	7	14	21
	All College courses	18	9	27
	Speech	6	7	13
	English	2	3	5
	Business Communications	3	1	4
	Various College courses	6	5	11
10. Be able to communicate with personnel without accounting training--to convert accounting terminology to understandable lay conversation.	No course listed	18	14	32
	All Accounting courses	14	6	20
	Accounting Principles	4	2	6
	English	4	3	7
	Speech	3	3	6
	Business Communications	3	1	4
	Management	1	2	3
	Various Business courses	3	1	4
	No course listed	17	15	32

\*Nontransfer students

Of the 139 participants, 71.9% agreed that provision was made in the curriculum for this skill. Although this item was in the nonbusiness category, 46% of the courses identified were business courses. There were 100 "Yes" respondents: 32% identified accounting courses; 18% listed "all college courses;" and, 33% did not specify any particular course as providing opportunity for this skill. This item may have been obtained as a result of study requirements for various college courses. While there was considerable difference in the percentage of "Yes" answers between NOSU students and transfer students, the majority of the difference was found in the "No Answer" response of transfer students. Several transfer students did not complete this portion of the questionnaire.

Item 2: Understand human behavior and human relations.

Positive consensus was reached at 73.4% on Item 2. Thirty-seven individuals, 36% of the "Yes" respondents, identified Psychology as the course providing opportunity for this competency; 25% listed Human Relations, a Management course; and, 10% listed Sociology. Psychology and Sociology were two of the areas of the curriculum which the student could have elected to take; they were not required. Human Relations was also an elective course not required of accounting majors.

Item 3: Be able to read people as to their wants, desires, and objectives (public relations).

Neither positive nor negative consensus was reached on this item. Of the 139 respondents, 48.2% answered "Yes," 44.6% answered "No," and 7.2% did not answer. Of the 67 "Yes" respondents, 25% identified Psychology as the course providing opportunity for this competency to be acquired. The varied listing of courses also reflected lack of

consensus; however, 40 individuals, 60% of the "Yes" respondents, listed courses in the business area.

Item 4: Have some physical activity--hobbies, sports, and diversions.

A positive response of 62.6% was attained on this item; consensus was not reached. Forty-nine percent of the 87 "Yes" respondents agreed that Physical Education courses provided opportunity for this skill to be acquired. Ten individuals mentioned general education courses such as art, music, and industrial arts. Although clubs and fraternities are not college courses, two people listed them as providing this opportunity. Physical Education courses were required of all nontransfer students, but the university policy was to waive one semester hour of physical education activity for each semester the transfer student attended another college or university. This waiver was in addition to the articulation agreement with Oklahoma junior colleges. For example, a transfer student who completed two semesters at another four-year college prior to enrollment at NOSU was not required to take any physical education activity course at NOSU even if he had previously completed only one semester hour of physical education activity. Also, the physical education activity requirement was waived for married female students and for all students over 25 years of age.

It is possible that the waiving of this activity requirement, plus the lack of required physical education activity by Oklahoma junior colleges, caused the agreement level to be low on this item. However, there was very little difference in the percentage of "Yes" answers between the nontransfer and transfer students.

Item 5: Be able to express thoughts clearly in writing.

Positive consensus of 74.8% was reached on Item 5. Over half, 51%, of the "Yes" respondents identified English as the course providing opportunity for this competency. English was required of all graduates--transfer and nontransfer. An additional 35% listed Business Communications as the course providing such opportunity. While Business Communications was not a required course, it was frequently recommended as an elective course that would be beneficial to accounting majors.

Item 6: Be able to read and absorb important information quickly.

Only 50.4% responded "Yes" to Item 6; no consensus was reached. Developmental Reading was identified by 21% of the "Yes" respondents, and 19% stated "all college courses" provided opportunity for this skill to be developed. Developmental Reading was not a required course. Comments such as "Entire course of study at NSC/NOSU directs a person toward this" indicated that this skill was obtained more through general class assignments and requirements than through actual classroom instruction.

Item 7: Be knowledgeable in the use of the English language; possess speaking skills sufficient to orally convey his thoughts, including good grammar.

One hundred ten "Yes" answers to this item resulted in positive consensus of 79.1%. Of these "Yes" respondents, 59% agreed that English provided opportunity; 40% agreed that Speech provided opportunity; and, 13% stated Business Communications provided opportunity for the skill to be developed. English and Speech were both required courses until 1973, at which time Speech was deleted as a required course and was then listed as one of the general education area courses that could be elected by the student.



Item 8: Be able to write English correctly, including punctuation, spelling, and good penmanship.

Positive consensus of 73.4% was reached on Item 8. A high percentage of agreement, 72%, was also reached on the course providing opportunity for this competency. English was identified by 73 individuals. An additional 20% of the "Yes" respondents listed Business Communications. English was required of all graduates; Business Communications was not required. Since English was identified as the course providing this item by such a large percent, and since it was required of both transfer and nontransfer students, the difference between the two groups' Yes/No responses could not be determined from the available information.

Item 9: Possess good listening ability.

Although 60.4% of the participants answered "Yes," consensus was not reached on this item. Of the 84 "Yes" respondents, 27 (32%) listed "all college courses," 32 (38%) did not list a course, and 13 (15%) identified Speech as the course providing opportunity for this skill. Comments such as "In all courses I took, good listening was important to success" tended to add emphasis to the answer "all college courses." Those college courses which relied heavily on good note-taking on the part of the student would have helped to develop this skill.

No conclusions were evident, from the courses listed, for the difference between the "No" responses to this item between transfer and nontransfer students.

Item 10: Be able to communicate with personnel without accounting training--to convert accounting terminology to understandable lay conversation.

Only a slight positive majority of 51.8% was attained as 72 respondents answered "Yes" to Item 10; consensus was not attained.

Thirty-six percent of the "Yes" respondents identified accounting courses as providing opportunity for this technique to be acquired. One individual replied, "Accounting Principles (where I was converted from a 'lay person' to an accounting oriented person)." (Respondent's emphasis.) Communications courses, such as English, Speech, and Business Communications, accounted for 24% of the "Yes" answers. Therefore, those communications courses and accounting courses which were required seemingly supplied the opportunity for this essential competency.

Since English and accounting requirements were the same for both transfer students and nontransfer students, there was no apparent explanation for the percentage of difference in the "Yes" responses between the two groups other than the fact that a number of transfer students failed to respond to this item.

Summary. When responses from NOSU accounting major graduates pertaining to the nonbusiness items were tabulated, it was found that:

(1) Positive consensus was reached on five items; therefore, according to the graduates, NOSU is effectively providing for these items.

(2) No consensus was reached on the other five items; therefore, graduates are of the opinion that while some provision is being made, NOSU is not effectively providing for these concepts, skills, techniques, and competencies.

## CHAPTER V

### SUMMARY OF FINDINGS AND RECOMMENDATIONS

The objective of this study was to evaluate the accounting curriculum at Northeastern Oklahoma State University and to determine if any curriculum changes were needed. A number of procedures could have been used for accomplishing this kind of objective. Some methods for evaluating curriculums as revealed in the literature were: survey students to determine their satisfactions or dissatisfactions with the program; compare a curriculum with curriculums proposed by the professional organizations such as the American Institute of Certified Public Accountants and the American Accounting Association; study the effectiveness of a curriculum in terms of student success on the job; and, study the effectiveness of a curriculum via survey of employer satisfaction with the university's major graduates, to name only a few.

This writer chose an evaluation method which involved three publics--educators, employers, and students. The evaluation was also designed to include the entire degree program--the accounting major, the related contextual courses, and the general education area.

Opinions concerning a desirable accounting curriculum were obtained from a panel of experts composed of accounting educators and employers of accountants. The panel was asked to determine what constitutes a desirable accounting curriculum. Students who had participated in the accounting program at NOSU were then surveyed to determine whether the

curriculum had provided opportunity for the essential elements of a desirable accounting curriculum as was determined by the panel of experts. The findings of this study are stated in terms of this particular evaluation procedure.

### Summary of Findings

The summary of findings of this study are presented in two parts as answers to the two questions posed: (1) What constitutes a desirable accounting curriculum" and (2) Does the present accounting curriculum at Northeastern Oklahoma State University provide an opportunity for the student to acquire the concepts, skills, techniques, and competencies deemed necessary in a desirable accounting curriculum?

#### Question One

What constitutes a desirable accounting curriculum? To answer this question, input was obtained from potential employers of accountants and from accounting educators. The group of 31 employers who were on the panel included representatives from various types of businesses: CPA firms, public accountants, banks, savings and loan associations, retail stores, attorneys, governmental units, and manufacturing firms. The ten educators included in this study were the NOSU accounting educators. (See Table I, page 30, for composition of the panel of experts.)

This panel of experts submitted a total of 74 concepts, skills, techniques, and competencies which could be incorporated in an accounting curriculum. Because a degree program must fit into four years, only the most important objectives can be included in the curriculum as requirements for all majors; hence, a consensus criterion of 66% was arbitrarily

set by this writer. The panel of experts agreed, at the 66% consensus level, that 46 of the original 74 items were essential to a desirable accounting curriculum. These 46 concepts, skills, techniques, and competencies as shown in Appendix E, pages 122-127, appear to be general in nature and to be desirable in order for the accounting major graduate to have the sound, basic understandings required to function effectively as an accountant.

#### Question Two

Does the present accounting curriculum at Northeastern Oklahoma State University provide an opportunity for the student to acquire the concepts, skills, techniques, and competencies deemed necessary in a desirable accounting curriculum? Answers to this question were obtained through a questionnaire survey of Northeastern Oklahoma State University accounting graduates. These former students were asked two questions: (A) Did the accounting curriculum at Northeastern Oklahoma State University provide an opportunity for the student to obtain each of the 46 essential concepts, skills, techniques, and competencies? (B) What course, or courses, provided the opportunity?

When responses to these questions were tabulated, it was found that, in the estimation of the graduates (at the 66% consensus level), the curriculum at NOSU provided for 26 of the 46 necessary concepts, skills, competencies, and techniques. The discussion of the responses to these questions is divided into the three broad categories of accounting, nonaccounting business, and nonbusiness.

Accounting. According to the graduates who participated in this phase of the study, the curriculum at NOSU provided for all except 10 of

the 25 accounting concepts, skills, competencies, and techniques deemed essential to an accounting curriculum by the panel of experts. No consensus was reached on nine of these items; negative consensus was attained on one item.

The accounting concepts, skills, techniques, and competencies which, in the opinion of the graduates, were not effectively provided are as follows: (The percentage of majority agreement, positive or negative, is indicated for each.)

Item No.

7. Have a concept of accounting items in relationship to various businesses. (53.2%, positive; no consensus)
9. Have basic knowledge of budgeting. (No consensus)
11. Know how to use tax services for researching a problem. (61.9%, positive; no consensus)
14. Become accustomed to actual business situations during the study of theory. (66.2%, negative consensus)
15. Be able to analyze accounting data for decision-making--including ratios, rate of return, and discounted cash flow. (59.0%, positive; no consensus)
17. Be able to design pertinent effective management reports and the systems needed for support. (61.2%, negative; no consensus)
18. Have a clear understanding of various accounting methods and the ability to set up an accounting method best suited for customers' business purposes--including techniques which will allow for improvement of customers' systems, business practices. (61.2%, negative; no consensus)
20. Be time-deadline conscious. (59.7%, positive; no consensus)
22. Have basic knowledge of the relationship of the accounting functions to the other elements of the organization. (56.1%, positive; no consensus)

24. Have "hands on" experience with various sets of records and journals (apprenticeship). (56.1%, negative; no consensus)

Except for Item 9, the majority of "Yes" respondents identified required accounting courses as making provision for the concept, technique, competency, or skill; therefore, differences in instructional techniques, or omission of study of these concepts by some of the sections taught by various educators, may have resulted in lack of consensus of the participants. The course identified as providing Item 9 was Cost Accounting, a course not required of all accounting majors.

Item 14 was the only item on the entire questionnaire that reached negative consensus. This concept could perhaps be implemented through improved instructional techniques. For example, field trips or guest lecturers (practitioners) could be utilized.

Nonaccounting Business. The panel of experts attained consensus on 11 essential nonaccounting business concepts, skills, competencies, and techniques. In the judgment of the graduates who participated in this study, NOSU provided for six of these essentials; no consensus was attained on the remaining five items.

The nonaccounting business concepts, skills, competencies, and techniques which, in the opinion of the graduates, were not effectively provided are as follows: (The percentage of majority agreement, positive or negative, is indicated for each.)

Item No.

1. Have training in the area of management decisions.  
(56.8%, positive; no consensus)
3. Develop the technique of being a good listener.  
(59.0%, positive; no consensus)

8. Have a basic understanding of the mechanics and the possibilities of the computer. (56.1%, positive; no consensus)
10. Have knowledge of finance and banking--including financing via lending institutions. (59.0%, positive; no consensus)
11. Know information and investigative techniques. (51.1%, negative; no consensus)

The courses most frequently listed as providing these nonaccounting business concepts were courses not required of all accounting majors. Management courses represented 75% of the identified courses providing Item 1; Management was not required of accounting majors.

Item 3 can be provided for through instructional techniques which require more active participation of the student via note-taking.

Computer Science was not available at NOSU until 1973, a likely factor causing lack of consensus for Item 8. No attempt was made to differentiate between respondents who graduated before or after Computer Science was added to the curriculum.

Money and Banking and Personal Finance were listed most frequently for Item 10; neither of these courses was required of all accounting majors.

Auditing was identified by 39% of the "Yes" respondents as the course making provision for Item 11. This course was not required, and several "No" respondents indicated that they did not take this course. This fact probably explains the lack of consensus on this particular item.

Nonbusiness. According to the graduates who participated in this phase of the study, the curriculum at NOSU provided for five of the ten nonbusiness concepts, skills, competencies, and techniques deemed



essential to an accounting curriculum by the panel of experts. No consensus was reached on the remaining five items.

The nonbusiness concepts, skills, competencies, and techniques which the graduates believed were not effectively provided are as follows: (The percentage of majority agreement, positive or negative, is indicated for each.)

Item No.

3. Be able to read people as to their wants, desires, and objectives (public relations). (No consensus)
4. Have some physical activity--hobbies, sports, diversions. (62.6%, positive; no consensus)
6. Be able to read and to absorb important information quickly. (50.4%, positive; no consensus)
9. Possess good listening ability. (60.4%, positive; no consensus)
10. Be able to communicate with personnel without accounting training--to convert accounting terminology to understandable lay conversation. (51.8%, positive; no consensus)

Psychology was listed by a majority of the "Yes" respondents in answer to Item 3; this course was not required of all accounting majors, but it could have been selected as one of the general education electives.

Physical education activity, fine arts courses, industrial arts, and clubs were listed as providing Item 4. None of these courses were required of all accounting majors due to the waiver of physical education activity requirements for the reasons previously mentioned in Chapter IV.

Items 6 and 9 rely heavily on the student's desire to succeed and on the study habits which he develops. Educators can, however, aid students in the development of these competencies by using instructional

techniques that encourage better listening and reading capabilities, such as through involving students in greater class participation.

Item 10 can be implemented by requiring the student to participate in class discussions and by giving essay examinations, and thus making it imperative for the student to verbalize his accounting knowledge.

In brief, the responses of the graduates disclosed that some of the 46 concepts, skills, techniques, and competencies which the panel deemed necessary were not effectively provided in the accounting curriculum at Northeastern Oklahoma State University. While some provision was made for all 46 curriculum objectives according to the responses of the participating graduates, opportunity to acquire some of the objectives was not provided to such an extent that 66% positive consensus was attained. Based on the findings of this study, it appears that some curriculum revision is indicated.

#### Suggested Curriculum Changes

The purpose of this study included the determination of any needed curriculum changes as indicated by the responses of accounting major graduates.

As shown in the tables containing courses listed by the participants, some of the necessary concepts were provided primarily, if not solely, by courses which were not required of all accounting majors. To ensure that every accounting major is provided opportunity to obtain each of the 46 essential concepts, skills, competencies, and techniques, the following curriculum changes are suggested:

### Accounting Area

Auditing and Cost Accounting should be added as required courses in accounting. According to the graduates, Auditing gave opportunity for four concepts which were not provided, to any extent, by any other course. The graduates also identified Cost Accounting as the primary source of opportunity for three concepts--two of which were not provided by any other major source, and one on which no consensus was reached by the participants in the study.

Based on the responses of the graduates who participated in this study, the inclusion of Auditing and Cost Accounting as required accounting courses should ensure that opportunity for acquiring each of the 25 accounting concepts, skills, techniques, and competencies--as deemed necessary by the panel of experts--is made available to all accounting majors. Although the inclusion of these courses as required of all accounting majors will limit the number of elective accounting courses which a major may take, it should result in the individual having a broad, general accounting background and should better prepare him to become an accountant.

### Nonaccounting Business Area

The following nonaccounting business courses should be added to the accounting major requirements: Business Machines, Statistics or Business Mathematics, Business Communications, Management, and Business Finance or Money and Banking or Personal Finance. Computer Science should be included either as a separate course or through emphasis on data processing units in accounting courses.

Inasmuch as, in the judgment of the graduates, Business Machines was the sole provider of one of the skills deemed essential by the panel of experts, it should be included in the accounting curriculum.

Statistics and Business Mathematics were identified by the graduates as providing two skills. It is recommended that the student should be permitted to choose between these two courses, but the student should be required to complete one of these two courses since two of the necessary skills were provided primarily by these courses.

According to graduates' responses, Business Communications was instrumental in providing opportunity for the student to acquire seven of the necessary business and nonbusiness competencies. This course gave opportunity for acquiring more of the essential competencies than any other nonaccounting course according to the course listings of the participants.

Participants agreed that Management was the major source of opportunity for acquiring one concept. To ensure opportunity for this concept, the student should take a course in Management. Management was also identified as contributing opportunity for three other competencies.

Personal Finance, Money and Banking, and Business Finance were identified by participants as making provision for one necessary technique. The student should be permitted to select one of these three courses to provide for this particular technique.

With respect to providing opportunity for the accounting major to acquire an understanding of the mechanics and the possibilities of the computer, two alternatives are suggested. The recommended procedure is that a unit in data processing be stressed in Accounting Principles and in Auditing. The alternative to this procedure is that the student be required to take a course in Computer Science.

Although graduates identified Business Law and Economics as being the major source of opportunity for acquiring only one concept each, both were listed as providing opportunity for obtaining several accounting and nonaccounting business concepts. It is therefore recommended that the present requirements of six semester hours of Business Law and six semester hours of Economics remain unchanged.

Based on the information obtained from the accounting major graduates who participated in this phase of the curriculum evaluation, the above recommendations should ensure opportunity for students to acquire each of the 11 nonaccounting business concepts, skills, competencies, and techniques considered necessary in a desirable accounting curriculum.

#### Nonbusiness Area

Speech should be added to the list of required general education courses. The need for competency in oral communications was submitted by 34 of the 51 experts who responded to the first Delphi questionnaire and was agreed to by 39 of the 41 experts who completed Delphi Questionnaire III. Speech was listed by 40% of the respondents who agreed that opportunity was provided for acquiring competency in written and oral communications. Speech courses, according to the graduates, also contributed opportunity for obtaining several other desired competencies, in both accounting and nonaccounting areas. Since oral communications was given such strong support by the panel of experts and by other professionals as revealed in the related literature, it is recommended that this course be included as a required general education course.

An examination of the courses listed by the graduates who participated in the study indicated that the general education portion

of the curriculum provided opportunity for acquiring all of the necessary nonbusiness skills, competencies, techniques, and concepts. However, since the students had some choices in the general education elective courses, apparently some students did not choose to take those courses providing opportunity for some of the desired training, which is possibly the reason for the lack of consensus on several nonbusiness objectives. Opportunity for acquiring all of the desired nonbusiness concepts, skills, techniques, and competencies would be afforded by the present general education requirements with the addition of the previously recommended courses.

In addition, it is noted that the general education requirements which were in effect during the years 1965 through 1975 provided opportunity for several of the 17 nonbusiness concepts which were included on the original list submitted by the panel of experts. (See Table II, pages 44 and 45, for original list.) Although consensus of 66% of the panel of experts was not attained on 7 of the original 17 nonbusiness concepts, they are nevertheless desirable in a curriculum. This writer is in agreement with other professionals as revealed in the literature that general education courses enhance the student's education and should be included in the program. It is recommended that the existing general education requirements remain unchanged, except for the inclusion of Speech as previously noted.

In summary, the inclusion of the additional business courses, as previously listed, would cause the accounting major to consist of 48-54 semester hours of required business courses. Hence, it is further recommended that the required business courses for the accounting major be expanded to the stated 48-54 semester hours and that the present

requirement that one minor be selected from either Economics or Business be deleted. This would permit the student to select one minor, not restricted to any subject matter area. Also, this major of 48-54 semester hours, with the 33-38 semester hours of required general education, would still permit the student to complete a second major within the 124 semester hour degree program if he so desired.

The fact is noted that the curriculum could have been revised via educator examination of the existing degree requirements and study of the 46 necessary concepts, skills, techniques, and competencies to ascertain which presently required courses could appropriately include the various desired elements of the curriculum. However, this procedure was not within the scope of this study, and the suggested curriculum changes were based on the criteria established by the panel of experts and on information supplied by accounting major graduates. Furthermore, the suggested curriculum changes were based on the courses now being offered at Northeastern Oklahoma State University without creating any new courses. Table IX, page 98, illustrates the model accounting curriculum formulated on this basis.

#### Areas for Future Research

The information reported in this study appears to justify the following recommendations for future research:

(1) Institutions should evaluate their curriculums by use of the Delphi technique applied to the various subject-matter areas.

The needs of society change; knowledgeable experts are available to determine priorities to include in the curriculum of the various major areas. While only 36% of the experts who were originally

TABLE VIII  
A MODEL ACCOUNTING CURRICULUM

Courses		Semester Hours
<u>Major</u>		
Accounting:		
Principles of Accounting	6	
Intermediate Accounting	6	
Income Tax Accounting	3	
Cost Accounting	3	
Auditing	3	
Elective Accounting	3	24
Business Law I and II		6
Macroeconomics and Microeconomics		6
Business Machines		3
Computer Science*		0-3
Business Statistics or Business Mathematics		2-3
Business Communications		3
Management		2-3
Personal Finance or Money & Banking or Business Finance		2-3 48-54
<u>Minor</u>		
To be selected by student		16
<u>General Education</u>		
Language Arts	6	
American History/Government	6	
Life/Physical Science	6-8	
Humanities	5-6	
Health/Physical Education	4	
Speech	2-3	
Orientation	1	
Elective courses: At least one course from each of two of the following areas:		
Social Science, Mathematics, Fine Arts, Health Education, Foreign Language, Practical Arts, Business, Psychology		33-38
Free electives to be selected by student		16-27
Total semester hours		124

\*See page 94 for suggested alternatives.



contacted agreed to participate in this study, several wrote to the researcher commenting on their belief in the worthwhileness of the project and on their willingness to be a part of the study. Experts can be found in various vocations, and they can supply information concerning contemporary societal needs. The input obtained from these experts can assist the professional educator in evaluating a curriculum.

(2) A comparison of employer/educator responses should be made to determine whether sufficient differences of opinions exist on priority items to justify the inclusion of employers in a curriculum evaluation. The Delphi technique is a time-consuming and costly procedure; hence, if the input from the two groups is essentially the same, there would appear to be advantages to staying with the traditional curriculum committee composed of only educators.

(3) Further research should be conducted as a follow-up to this study.

The present research instrument resulted in information which could enable the institution to revise and to improve the accounting curriculum. Future research should be conducted to determine whether the recommended curriculum changes resulted in a higher positive consensus among the graduates on the 46 necessary concepts, skills, techniques, and competencies. This future evaluation should be accomplished through a follow-up survey of accounting major graduates who have completed their entire degree program after the curriculum changes have been implemented.

Again, since the needs of the business world are ever-changing, the Delphi technique should be used periodically to ascertain whether there has been a shift in priorities and if further curriculum revisions are indicated.

(4) Accounting educators should make a comparison of the list of essential concepts, skills, techniques, and competencies with the various accounting courses they teach and determine how they can incorporate these objectives into their classes. Inclusion of the specified essential objectives in appropriate courses should result in emphasis being placed on the more important aspects of each course. Also, different instructional techniques might be developed to make the accounting curriculum more effective.

In conclusion, although this study evaluated only one major program within a university, the procedure could be used for evaluation of curriculum requirements of other disciplines. The study aided in identifying strengths and weaknesses in the accounting program, and it is hoped that it will also provide valuable insight and assistance in implementing any needed curriculum changes.

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APPENDIX A

PILOT STUDY QUESTIONNAIRE

Northeastern Oklahoma State University TAHLEQUAH OKLAHOMA 74464

September 11, 1974

Northeastern Oklahoma State University is in the process of evaluating the effectiveness of its accounting curriculum. Because of the rapidly changing business environment, it is imperative that accounting curriculums be under constant review, and that they be kept flexible in order to meet the needs of society. Your help is solicited in this project.

Higher Education has seldom utilized input from employers of college graduates when evaluating and/or revising curriculums. However, we believe that, as "users" of our "product," employers should be consulted in this important matter.

Will you please assist us by completing and returning the enclosed questionnaire? Your cooperation will give higher education administration significant input for making any indicated revisions of the accounting curriculum and will benefit employers by providing improved accountants in the future. Identity of all participants will be kept confidential.

Sincerely yours,

Mrs. Irma Stierwalt  
Assistant Professor of Business Education

Enclosures 2

## QUESTIONNAIRE

Name: \_\_\_\_\_ Position: \_\_\_\_\_

Name of Firm: \_\_\_\_\_ Number of Employees (Approximate): \_\_\_\_\_

The following statements are designed to include three broad areas of an accounting major program--accounting, nonaccounting business, and non-accounting nonbusiness. Please complete each statement with three to five items that you believe to be essential in order for an accounting graduate to be able to function effectively. (DO NOT LIST SUBJECT TITLES.)

1. To be generally effective as an accountant, I believe an individual should have the following ACCOUNTING skills, techniques, concepts, etc.:
  
  
  
  
  
  
  
  
  
  
2. To be generally effective as an accountant, I believe an individual should have the following NONACCOUNTING BUSINESS skills, techniques, concepts, etc.:
  
  
  
  
  
  
  
  
  
  
3. To be generally effective as an accountant, I believe an individual should have the following NONACCOUNTING NONBUSINESS competencies:



APPENDIX B

DELPHI QUESTIONNAIRE I

Northeastern Oklahoma State University TAHLEQUAH, OKLAHOMA 74464

November 7, 1974

Northeastern Oklahoma State University is in the process of evaluating the effectiveness of its accounting curriculum. Higher education has seldom utilized input from employers of college graduates when evaluating and/or revising curriculums. However, we believe that, as "users" of our "product," employers should be consulted in this matter. We have chosen the Delphi Technique, developed by the Rand Corporation, as our method for evaluating our present accounting curriculum. This technique employs the questionnaire and feedback approach to groups of experts in order to form a consensus. The procedure, briefly, is as follows:

1. The first questionnaire requests a list of opinions on desirable curriculum content in the areas of accounting, nonaccounting business, and nonbusiness competencies.
2. The second questionnaire will consist of a list compiled from round one responses on which each respondent is asked to rate each item by a criterion such as importance, priority, or relevance.
3. The third questionnaire will include the list and the previous ratings, indicate the consensus reached, and give respondents the opportunity either to revise their opinions or to express their reasons for remaining outside the consensus.

We are soliciting your help in this important project. It is expected that it will require about 15 minutes to complete each of the first and third questionnaires, and the round two questionnaire should require about 20 minutes. Since it is necessary that respondents participate in all three rounds, we are asking that you indicate your willingness to aid in this review by completing and returning the enclosed questionnaire. Your cooperation will give higher education administration significant input for making any indicated revisions of the accounting curriculum and will benefit employers by providing improved accountants in the future. Identity of all participants will be kept confidential.

Sincerely yours,

Irma Stierwalt  
Assistant Professor of Business Education

Enclosures 2

## QUESTIONNAIRE

Name: \_\_\_\_\_ Position: \_\_\_\_\_

Name of Firm: \_\_\_\_\_ Number of Employees (Approximate): \_\_\_\_\_

The following statements are designed to include three broad areas of an accounting major program--accounting, nonaccounting business, and non-accounting nonbusiness. Please complete each statement with three to five items that you believe to be essential in order for an accounting graduate to be able to function effectively. (DO NOT LIST SUBJECT TITLES.)

1. To be generally effective as an accountant, I believe an individual should have the following ACCOUNTING skills, techniques, concepts, etc.:
  
  
  
  
  
  
  
  
  
  
2. To be generally effective as an accountant, I believe an individual should have the following NONACCOUNTING BUSINESS skills, techniques, concepts, etc.:
  
  
  
  
  
  
  
  
  
  
- 3: To be generally effective as an accountant, I believe an individual should have the following NONACCOUNTING NONBUSINESS competencies:

APPENDIX C

DELPHI QUESTIONNAIRE II

Northeastern Oklahoma State University    TAHLEQUAH, OKLAHOMA 74464

February 7, 1975

Enclosed is the Delphi Questionnaire II for the evaluation of the accounting curriculum at Northeastern Oklahoma State University. The items included on the questionnaire were compiled from the responses to Questionnaire I which could be incorporated in specific courses in a curriculum.

You are to evaluate the statements on the questionnaire by placing the number of the appropriate response in the space provided to the left of the item. The responses are as follows:

- (1) Agree
- (2) Slightly agree
- (3) I am indifferent, or I do not know
- (4) Slightly disagree
- (5) Disagree

The next questionnaire will indicate how you replied compared to the statistical consensus of all respondents. A prompt return of this questionnaire will be appreciated. Thank you for your continued assistance in this project.

Sincerely yours,

Irma Stierwalt  
Assistant Professor of Business Education

Enclosures 2

## DELPHI QUESTIONNAIRE II

RESPONDENT NO. \_\_\_\_\_

- (1) Agree
- (2) Slightly agree
- (3) I am indifferent, or I do not know
- (4) Slightly disagree
- (5) Disagree

## A. ACCOUNTING concepts, skills, competencies, etc.

In order to be generally effective as an accountant, the individual should:

- \_\_\_ 1. Possess a clear understanding of the purposes for which books and records are kept.
- \_\_\_ 2. Have a thorough knowledge of generally accepted accounting principles.
- \_\_\_ 3. Have a thorough understanding of accounting principles--be consistent in application, but flexible in problem solving.
- \_\_\_ 4. Have prepared for the CPA examination.
- \_\_\_ 5. Have knowledge of machine accounting--including computer utilization.
- \_\_\_ 6. Be familiar with accounting and reporting requirements of the FASB, APB, SAS, and SEC.
- \_\_\_ 7. Have an understanding of the objectives of financial and management accounting and reporting, and the needs and expectations of users of financial statements.
- \_\_\_ 8. Have an understanding of the basic concepts and accounting principles underlying financial statements of business enterprises.
- \_\_\_ 9. Have skills in preparing and interpreting financial statements.
- \_\_\_ 10. Have a concept of accounting items in relationship to various businesses.
- \_\_\_ 11. Have the ability to understand and follow through the program from basic input of the available data to production of comprehensible financial reports.
- \_\_\_ 12. Have basic knowledge of budgeting.
- \_\_\_ 13. Have basic knowledge of internal controls--including payroll procedures.
- \_\_\_ 14. Know how to use tax services for researching a problem.
- \_\_\_ 15. Have an understanding of tax laws and of their effect on accounting decisions.
- \_\_\_ 16. Be able to prepare income tax returns.
- \_\_\_ 17. Have practice in auditing procedures whether it be for internal auditing or preparing for an outside audit.
- \_\_\_ 18. Understand the purpose of an audit--and basic knowledge of how to audit.
- \_\_\_ 19. Become accustomed to actual business situations during the study of theory.
- \_\_\_ 20. Be able to analyze accounting data for decision-making--including ratios, rate of return, discounted cash flow, etc.
- \_\_\_ 21. Be able to design, implement, and administer a complete simple set of books.
- \_\_\_ 22. Be able to design pertinent effective management reports and the systems needed for support.
- \_\_\_ 23. Have a clear understanding of various accounting methods and the ability to set up an accounting method best suited for customers' business purposes--including techniques which will allow for improvement of customers' systems, business practices, etc.
- \_\_\_ 24. Have the ability to evaluate proposed planning in relation to present and prospective financial statements.
- \_\_\_ 25. Have knowledge of cost accounting--including product costing and pricing, standard cost systems, variance reporting, and analysis.
- \_\_\_ 26. Be time-deadline conscious.
- \_\_\_ 27. Be able to produce accurate, neat, fast work.
- \_\_\_ 28. Have basic knowledge of the relationship of the accounting functions to the other elements of the organization.
- \_\_\_ 29. Know the business structure of various legal entities: corporations, partnerships, fiduciary, and sole proprietorship.
- \_\_\_ 30. Have "hands on" experience with various sets of records and journals (apprenticeship).
- \_\_\_ 31. Have knowledge of and appreciation for proper business ethics.
- \_\_\_ 32. Have completed a course in each area of accounting, including exposure to the more unusual types of entities, i. e. governmental.

B. BUSINESS concepts, skills, competencies, etc.

In order to be generally effective as an accountant, the individual should:

- \_\_\_ 33. Understand marketing and distribution systems.
- \_\_\_ 34. Have a working knowledge of business insurance.
- \_\_\_ 35. Be able to type.
- \_\_\_ 36. Have some expertise as a salesman in order to properly convey and to receive acceptance of his ideas.
- \_\_\_ 37. Have training in the area of management decisions.
- \_\_\_ 38. Understand personnel management (psychology).
- \_\_\_ 39. Have at least a brief exposure to financial management of a business (something on the order to Junior Achievement).
- \_\_\_ 40. Have knowledge of management systems.
- \_\_\_ 41. Demonstrate effective business communications--including business letters, report writing, completion of forms--to adequately express opinions and views.
- \_\_\_ 42. Develop the technique of being a good listener.
- \_\_\_ 43. Have training in supervisory and personnel relations directed toward a business environment.
- \_\_\_ 44. Have basic knowledge of contemporary business behavior.
- \_\_\_ 45. Have good working knowledge of the law as it relates to business situations.
- \_\_\_ 46. Have some knowledge with respect to the litigation procedures of tax matters.
- \_\_\_ 47. Be able to use quantitative tools: business mathematics and statistics.
- \_\_\_ 48. Understand basic statistical applications.
- \_\_\_ 49. Have a good understanding of our economy--how it operates, what causes fluctuations, and how to respond in business to fluctuations.
- \_\_\_ 50. Understand the how, why, and need for the free enterprise system.
- \_\_\_ 51. Have a basic understanding of the mechanics and the possibilities of the computer.
- \_\_\_ 52. Have skill in the use of various business machines (adding machines, calculators, etc.) to insure efficient use of accountant's skills.
- \_\_\_ 53. Have knowledge of finance and banking--including financing via lending institutions.
- \_\_\_ 54. Be aware of surrounding conditions--have a concept of the total picture for the company.
- \_\_\_ 55. Possess knowledge of all phases of business--marketing, production, personnel, etc.
- \_\_\_ 56. Know information and investigative techniques.
- \_\_\_ 57. Know Social Security laws, Wage and Hour laws, and various pension plans.

C. NONBUSINESS concepts, skills, competencies, etc.

In order to be generally effective as an accountant, the individual should:

- \_\_\_ 58. Have a general background in history and literature.
- \_\_\_ 59. Have knowledge of the organization and function of American government.
- \_\_\_ 60. Have at least one elective course in sociology.
- \_\_\_ 61. Have some science.
- \_\_\_ 62. Have a liberal arts background.
- \_\_\_ 63. Be able to evaluate problems in a logical manner.
- \_\_\_ 64. Understand human behavior and human relations.
- \_\_\_ 65. Be able to read people as to their wants, desires, and objectives (public relations).
- \_\_\_ 66. Have general knowledge of many fields--from farming, oil, contracting, to retail and manufacturing.
- \_\_\_ 67. Have some physical activity--hobbies, sports, diversions.
- \_\_\_ 68. Have some mathematics--at least through calculus and trigonometry.
- \_\_\_ 69. Be able to clearly express thoughts in writing.
- \_\_\_ 70. Be able to read and absorb important information quickly.
- \_\_\_ 71. Be knowledgeable in the use of the English language; possess speaking skills sufficient to orally convey his thoughts, including good grammar.
- \_\_\_ 72. Be able to write English correctly, including punctuation, spelling, and good penmanship.
- \_\_\_ 73. Possess good listening ability.
- \_\_\_ 74. Be able to communicate with personnel without accounting training--to convert accounting terminology to understandable lay conversation.

APPENDIX D

DELPHI QUESTIONNAIRE III



Northeastern Oklahoma State University    TAHLEQUAH, OKLAHOMA 74464

March 8, 1975

At last! The final questionnaire for evaluating the accounting curriculum is enclosed with this letter. Your assistance on the first two questionnaires is appreciated, and I will be grateful if you will help me again by completing this last questionnaire and returning it to me.

Delphi Questionnaire III is presented in two parts as follows:

Part I:    Group consensus required a response of "Agree" by 66.7% of the participants. A number of items reached this consensus on Questionnaire II, and these items have been listed separately. Your response for each item is indicated by a circle around the number responding as you did to the item.

Part II:    Group consensus was not reached on some items. Part II of this questionnaire lists these items, and you are requested to select your response again. Your previous responses have also been indicated on this portion of the questionnaire. You may change your answer if you wish, or you may respond as you did on the previous questionnaire.

You are also given the opportunity to make comments as to why you chose to respond as you did on any item on which you disagree with the majority or the group consensus. These minority reports are an important part of the study.

Again, this is the final questionnaire, and your assistance throughout the project is greatly appreciated. Thank you very much.

Sincerely yours,

Irma Stierwalt  
Assistant Professor of Business Education

Enclosures 2

DELPHI QUESTIONNAIRE III - Part I

RESPONDENT NO. \_\_\_\_\_

The following items resulted in group consensus (66% or more) on Questionnaire II. Please indicate whether you Agree or Disagree with the consensus by placing an "A" or a "D" in the space provided. Also, please add a comment if you disagree with the consensus--stating your reasons for disagreement.

A/D	Item No.	STATEMENT	Results of Questionnaire II					COMMENTS
			1	2	3	4	5	
		In order to be generally effective as an accountant, the individual should:						
___	1.	Possess a clear understanding of the purposes for which books are kept.	42	3				_____
___	2.	Have a thorough knowledge of generally accepted accounting principles.	44	1				_____
___	3.	Have a thorough understanding of accounting principles--be consistent in application, but flexible in problem solving.	40	3			1	_____
___	7.	Have an understanding of the objectives of financial and management accounting and reporting, and the needs and expectations of users of financial statements.	40	5				_____
___	8.	Have an understanding of the basic concepts and accounting principles underlying financial statements of businesses.	43	2				_____
___	9.	Have skills in preparing and interpreting financial statements.	44	1				_____
___	10.	Have a concept of accounting items in relationship to various businesses.	30	10	4	1		_____
___	11.	Have the ability to understand and follow through the program from basic input of the available data to production of comprehensible financial reports.	39	5			1	_____
___	12.	Have basic knowledge of budgeting.	32	10	3			_____
___	13.	Have basic knowledge of internal controls--including payroll procedures.	38	5	1			_____
___	14.	Know how to use tax services for researching a problem.	31	12		2		_____
___	15.	Have an understanding of tax laws and of their effect on accounting decisions.	37	8				_____
___	18.	Understand the purpose of an audit--and basic knowledge of how to audit.	38	7				_____
___	19.	Become accustomed to actual business situations during the study of theory.	30	11	1	1	2	_____

## Part I, continued

A/D	Item No.	STATEMENT	Results of Questionnaire II					COMMENTS
			1	2	3	4	5	
—	20.	Be able to analyze accounting data for decision-making--including ratios, rate of return, discounted cash flow, etc.	35	8	1	1		
—	21.	Be able to design, implement, and administer a complete simple set of books.	44	1				
—	23.	Have a clear understanding of various accounting methods and the ability to set up an accounting method best suited for customers' business purposes--including techniques which will allow for improvement of customers' systems, business practices, etc.	33	10	2			
—	25.	Have knowledge of cost accounting--including product costing and pricing, standard cost systems, variance reporting, and analysis.	32	12	1			
—	26.	Be time-deadline conscious.	37	7	1			
—	27.	Be able to produce accurate, neat, fast work.	40	4			1	
—	28.	Have basic knowledge of the relationship of the accounting functions to the other elements of the organization.	35	10				
—	29.	Know the business structure of various legal entities: corporations, partnerships, fiduciary, and sole proprietorship.	35	9		1		
—	31.	Have knowledge of and appreciation for proper business ethics.	38	7				
—	41.	Demonstrate effective business communications--including business letters, report writing, completion of forms--to adequately express opinions and views.	39	4	1			
—	42.	Develop the technique of being a good listener.	35	7	2			
—	47.	Be able to use quantitative tools: business mathematics and statistics.	30	11	1	1	1	
—	52.	Have skill in the use of various business machines (adding machines, calculators, etc.) to ensure efficient use of accountant's skills.	34	7	1	2		
—	63.	Be able to evaluate problems in a logical manner.	42	2				
—	69.	Be able to clearly express thoughts in writing.	40	4				
—	70.	Be able to read and absorb important information quickly.	38	4	1	1		

Part I, continued

A/D	Item No.	STATEMENT	Results of Questionnaire II					COMMENTS
			1	2	3	4	5	
—	71.	Be knowledgeable in the use of the English language; possess speaking skills sufficient to orally convey his thoughts, including good grammar.	40	3	1			_____
—	72.	Be able to write English correctly, including punctuations, spelling, and good penmanship.	39	3	2			_____
—	73.	Possess good listening ability.	37	5	1		1	_____
—	74.	Be able to communicate with personnel without accounting training--to convert accounting terminology to understandable lay conversation.	41	3				_____

# DELPHI QUESTIONNAIRE III - Part II

The following items did not result in a group consensus on Questionnaire II. You are again asked to consider each item and respond as follows:

- 1 - Agree
- 2 - Slightly agree
- 3 - I am indifferent, or I do not know
- 4 - Slightly disagree
- 4 - Disagree

Also, if your response is NOT in agreement with the majority of the responses from Questionnaire II, please add a comment.

Item No.	STATEMENT	Results of Questionnaire II					COMMENTS
		1	2	3	4	5	
	In order to be generally effective as an accountant, the individual should:						
4.	Have prepared for the CPA examination.	11	16	5	5	8	
5.	Have knowledge of machine accounting--including computer utilization.	20	18	1	4	2	
6.	Be familiar with accounting and reporting requirements of the FASB, APB, SAS, and SEC.	24	9	6	2	4	
16.	Be able to prepare income tax returns.	21	15	2	3	4	
17.	Have practice in auditing procedures whether it be for internal auditing or preparing for an outside audit.	22	16	3	2	1	
22.	Be able to design pertinent effective management reports and the systems needed for support.	26	17	2			
24.	Have the ability to evaluate proposed planning in relation to present and prospective financial statements.	25	16	4			
30.	Have "hands on" experience with various sets of records and journals (apprenticeship).	26	14	1		4	
32.	Have completed a course in each area of accounting, including exposure to the more unusual types of entities, i. e. government.	21	15	4	1	4	
33.	Understand marketing and distribution systems.	13	23	5	3		
34.	Have a working knowledge of business insurance.	17	18	5	2	2	
35.	Be able to type.	3	15	5	6	15	
36.	Have some expertise as a salesman in order to properly convey and to receive acceptance of his ideas.	14	13	6	5	6	
37.	Have training in the area of management decisions.	20	16	3	3	2	

Part II, continued

Item No.	STATEMENT	Results of Questionnaire II					COMMENTS
		1	2	3	4	5	
38.	Understand personnel management (psychology).	20	14	7	2	1	
39.	Have at least a brief exposure to financial management of a business (something on the order of Junior Achievement).	18	15	7	1	3	
40.	Have knowledge of management systems.	17	14	5	3	1	
43.	Have training in supervisory and personnel relations directed toward a business environment.	16	22	4	2		
44.	Have basic knowledge of contemporary business behavior.	21	17	5			
45.	Have good working knowledge of the law as it relates to business situations.	25	16	3			
46.	Have some knowledge with respect to the litigation procedures of tax matters.	19	17	5	1	2	
48.	Understand basic statistical applications.	26	14	2	1	1	
49.	Have a good understanding of our economy--how it operates, what causes fluctuations, and how to respond in business to fluctuations.	17	19	3	1	3	
50.	Understand the how, why, and need for the free enterprise system.	24	12	3	1	3	
51.	Have a basic understanding of the mechanics and the possibilities of the computer.	25	12	4	3		
53.	Have knowledge of finance and banking--including financing via lending institutions.	23	15	4	2		
54.	Be aware of surrounding conditions--have a concept of the total picture for the company.	25	16	2			
55.	Possess knowledge of all phases of business--marketing, production, personnel, etc.	17	18	5	2	2	
56.	Know information and investigative techniques.	24	8	5	5	1	
57.	Know Social Security laws, Wage and Hour laws, and various pension plans.	20	14	6	2	2	
58.	Have a general background in history and literature.	5	11	11	8	9	
59.	Have knowledge of the organization and function of American government.	13	24	4	3		

Part II, continued

Item No.	STATEMENT	Results of Questionnaire II					COMMENTS
		1	2	3	4	5	
60.	Have at least one elective course in sociology.	7	16	9	7	5	
61.	Have some science.	11	11	9	9	4	
64.	Understand human behavior and human relations.	27	14	3			
65.	Be able to read people as to their wants, desires, and objectives (public relations).	26	14	3	1		
66.	Have general knowledge of many fields--from farming, oil, contracting, to retail and manufacturing.	12	23	4	4	1	
67.	Have some physical activity--hobbies, sports, diversions.	27	7	4	2	4	
68.	Have some mathematics--at least through calculus and trigonometry.	19	19	4	2	2	

APPENDIX E

ACCOUNTING MAJOR EVALUATION QUESTIONNAIRE



Northeastern Oklahoma State University TAHLEQUAH, OKLAHOMA 74464

April 7, 1975

Dear Accounting Major Graduate:

NEOSU is in the process of evaluating the effectiveness of its accounting curriculum. We have surveyed employers of accountants (both private and public firms) and accounting educators. This group of experts has formed a consensus on the desired skills, concepts, competencies, etc., an individual should have in order to be generally effective as an accountant.

Your help, as an NEOSU accounting major graduate, is now solicited. You are requested to determine: (1) Did NEOSU provide the opportunity for these skills, concepts, etc., in the accounting curriculum? (2) If so, what college course, or courses, provided the item. (You are not asked to list the courses by course numbers, simply by title--for example, macroeconomics, cost accounting, American government.) Your assistance will enable us to determine if the present accounting curriculum needs to be revised.

Will you please complete the enclosed questionnaire to the best of your knowledge and return it to me in the enclosed envelope? The identity of all participants will be kept confidential. Your early reply will be appreciated. Thank you for your help in this project.

Sincerely yours,

Irma Stierwalt  
Assistant Professor of Business Education

Enclosures 2

# Q U E S T I O N N A I R E

Respondent Number: \_\_\_\_\_ (For administrative use only--identity of all respondents will be kept strictly confidential.)

Did you complete your entire bachelor's degree program at Northeastern Oklahoma State University? Yes or No (Circle one)

If you did not complete your entire bachelor's degree program at NOSU, please answer the following questions:

1. What college, or colleges, did you attend other than NOSU? \_\_\_\_\_
2. How many semester hours (approximately) did you transfer to NOSU from other colleges? \_\_\_\_\_
3. How many semester hours of accounting did you transfer from other colleges? \_\_\_\_\_
4. How many semester hours of nonaccounting business courses did you transfer? \_\_\_\_\_  
(business machines, business law, economics, etc.)

INSTRUCTIONS: A group of experts, representing both practicing accountants and educators, have indicated that the items listed below are deemed necessary in order for an individual to be generally effective as an accountant. You are requested to:

- (1) Indicate whether NOSU provided an opportunity for you to obtain these concepts, competencies, and skills in the curriculum by circling either "Yes" or "No."
- (2) If your answer to the item is "Yes," please identify the course, or courses, that provided the concept, competency, or skill. State the course title instead of course number when making this identification. For example: cost accounting, macroeconomics, American history, etc.

Item	Was provision made for this item?		Course or courses in the curriculum which provided the item.
A. ACCOUNTING CONCEPTS, SKILLS, COMPETENCIES, ETC.			
In order to be generally effective as an accountant, the individual should:			
1. Possess a clear understanding of the purposes for which books and records are kept.	Yes	No	
2. Have a thorough knowledge of generally accepted accounting principles.	Yes	No	
3. Have a thorough understanding of accounting principles--be consistent in application, but flexible in problem solving.	Yes	No	
4. Have an understanding of the objectives of financial and management accounting and reporting, and the needs and expectations of users of financial statements.	Yes	No	
5. Have an understanding of the basic concepts and accounting principles underlying financial statements of business enterprises.	Yes	No	
6. Have skills in preparing and interpreting financial statements.	Yes	No	

(over)

7. Have a concept of accounting items in relationship to various businesses.	Yes	No
8. Have the ability to understand and follow through the program from basic input of the available data to production of comprehensible financial statements.	Yes	No
9. Have basic knowledge of budgeting.	Yes	No
10. Have basic knowledge of internal controls--including payroll procedures.	Yes	No
11. Know how to use tax services for researching a problem.	Yes	No
12. Have an understanding of tax laws and of their effect on accounting decisions.	Yes	No
13. Understand the purpose of an audit--and basic knowledge of how to audit.	Yes	No
14. Become accustomed to actual business situations during the study of theory.	Yes	No
15. Be able to analyze accounting data for decision-making--including ratios, rate of return, discounted cash flow, etc.	Yes	No
16. Be able to design, implement, and administer a complete simple set of books.	Yes	No
17. Be able to design pertinent effective management reports and the systems needed for support.	Yes	No
18. Have a clear understanding of various accounting methods and the ability to set up an accounting method best suited for customers' business purposes--including techniques which will allow for improvement of customers' systems, business practices, etc.	Yes	No
19. Have knowledge of cost accounting--including product costing and pricing, standard cost systems, variance reporting, and analysis.	Yes	No
20. Be time-deadline conscious.	Yes	No
21. Be able to produce accurate, neat, fast work.	Yes	No
22. Have basic knowledge of the relationship of the accounting functions to the other elements of the organization.	Yes	No
23. Know the business structure of various legal entities: corporations, partnerships, fiduciary, and sole proprietorship.	Yes	No
24. Have "hands on" experience with various sets of records and journals (apprenticeship).	Yes	No
25. Have knowledge of and appreciation for proper business ethics.	Yes	No

Item	Was provision made for this item?	Course or courses in the curriculum which provided the item.
<b>B. BUSINESS CONCEPTS, SKILLS, COMPETENCIES, ETC.</b> In order to be generally effective as an accountant, the individual should:		
1. Have training in the area of management decisions.	Yes No	
2. Demonstrate effective business communications--including business letters, report writing, completion of forms--to adequately express opinions and views.	Yes No	
3. Develop the technique of being a good listener.	Yes No	
4. Have good working knowledge of the law as it relates to business situations.	Yes No	
5. Be able to use quantitative tools: business mathematics and statistics.	Yes No	
6. Understand basic statistical applications.	Yes No	
7. Understand the how, why, and need for the free enterprise.	Yes No	
8. Have a basic understanding of the mechanics and the possibilities of the computer.	Yes No	
9. Have skill in the use of various business machines (adding machines, calculators, etc.).	Yes No	
10. Have knowledge of finance and banking--including financing via lending institutions.	Yes No	
11. Know information and investigative techniques.	Yes No	
<b>C. NONBUSINESS CONCEPTS, SKILLS, COMPETENCIES, ETC.</b> In order to be generally effective as an accountant, the individual should:		
1. Be able to evaluate problems in a logical manner.	Yes No	
2. Understand human behavior and human relations.	Yes No	
3. Be able to read people as to their wants, desires, and objectives (public relations).	Yes No	
4. Have some physical activity--hobbies, sports, diversions.	Yes No	
5. Be able to clearly express thoughts in writing.	Yes No	
6. Be able to read and absorb important information quickly.	Yes No	
7. Be knowledgeable in the use of the English language; possess speaking skills sufficient to orally convey his thoughts, including good grammar.	Yes No	

(over)

8. Be able to write English correctly, including punctuation, spelling, and good penmanship.	Yes	No
9. Possess good listening ability.	Yes	No
10. Be able to communicate with personnel without accounting training--to convert accounting terminology to understandable lay conversation.	Yes	No

VITA <sup>2</sup>

Irma Hail Stierwalt

Candidate for the Degree of

Doctor of Education

Thesis: AN EVALUATION OF THE CURRENT ACCOUNTING CURRICULUM AT  
NORTHEASTERN OKLAHOMA STATE UNIVERSITY WITH IMPLICATIONS FOR  
CURRICULUM REVISION

Major Field: Business Education

Biographical:

Personal Data: Born in Coffeyville, Kansas, August 26, 1924, the  
daughter of Mr. and Mrs. W. L. Hail.

Education: Graduated from Chelsea High School, Chelsea, Oklahoma,  
in May, 1942; received Bachelor of Science in Education  
degree in Business Education from Northeastern Oklahoma  
State University, Tahlequah, Oklahoma, in 1947; received  
Master of Teaching degree from Northeastern Oklahoma State  
University in 1962; enrolled in doctoral program at the  
University of Arkansas, 1968-70; completed requirements for  
the Doctor of Education degree at Oklahoma State University  
in December, 1975.

Professional Experience: Business education teacher, Nelagoney  
High School, Nelagoney, Oklahoma, 1945-46; Assistant to the  
Registrar, Northeastern Oklahoma State University, 1947-52  
and 1957-65; Instructor of Accounting, Northeastern Oklahoma  
State University, 1965-74; graduate teaching assistant,  
Oklahoma State University, School of Business Administration,  
1974; Assistant Professor of Accounting, Northeastern Okla-  
homa State University, 1974.

Professional Organizations: Member of Delta Pi Epsilon, National  
Business Education Association, Oklahoma Business Education  
Association, Oklahoma Education Association, American  
Accounting Association, and Oklahoma Accounting Educators.