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The present status and future trends of business education programs in Nebraska public high schools

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THE PRESENT STATUS AND FUTURE TRENDS OF BUSINESS EDUCATION PROGRAMS IN NEBRASKA PUBLIC HIGH SCHOOLS

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by

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Pamela A. Troutman

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Chapter 1

INTRODUCTION

Like most areas of the secondary school curriculum the business education curriculum has been undergoing many changes in recent years. Changes in society, new technological advances, federal programs, and changing occupational needs all have contributed to new program patterns in business education curriculum. Business education teachers have been bombarded on all sides with recommendations for adding new courses, dropping existing ones, and trying new teaching techniques and materials. Unfortunately, little is known about the extent to which such curriculum changes and instructional innovations have taken place thus far, nor about what changes and developments business education teachers anticipate will be taking place in the future. Such data could provide a truer picture of the present and future business education programs in a given geographic region and could indicate to what extent the "ideal" business education programs reflect the current reality. It was to secure such an information base that the present study was conducted in the state of Nebraska.

THE PROBLEM AND ITS SIGNIFICANCE

It was the intent of this study to determine present business education curriculum patterns and instructional techniques as well as what changes in these areas were anticipated by teachers in this field.

Statement of the Problem and Sub-problems

What is the current status and what are the anticipated trends of the business education curriculum patterns and instructional innovations in the secondary schools in Nebraska was the problem to which this study addressed itself. This problem, in turn, could be divided into several sub-problems.

Sub-problem 1. What are the current business education curriculum offerings in Nebraska secondary schools?

Sub-problem 2. Which, if any, of these business subjects will become less popular in the next five years?

Sub-problem 3. What business education subjects are likely to become more popular in Nebraska secondary schools in the next five years?

Sub-problem 4. What business education program innovations have been adopted by Nebraska secondary schools?

Sub-problem 5. What business education program innovations will be adopted in Nebraska secondary schools in the next five years?

Sub-problem 6. Are differences in the responses to the above questions related to school size?

The Hypotheses

This problem, with its sub-problems, was translated into several hypotheses which are stated below.

Hypothesis 1. No significant differences in the present business education curriculum offerings exist between schools of various sizes in Nebraska.

Hypothesis 2. No significant differences in the anticipated business education curriculum offerings as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Hypothesis 3. No significant differences in the anticipated enrollments in business education courses as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Hypothesis 4. No significant differences in the current adoption patterns of business education program innovations as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Hypothesis 5. No significant differences in anticipated adoption patterns of business education program innovations as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Significance of the Problem

Curriculum and instruction decision making is a complex problem. Many attempts have been made in the past two decades to develop new curriculum and instructional techniques which the proponents of such programs and procedures hoped would be adopted by schools throughout the nation. In many cases, however, such hopes were never realized since the classroom teachers were unwilling or unable to use the new approaches. Thus a more realistic picture of what is currently happening or what will happen in any curriculum area can be better determined by finding out what classroom teachers anticipate than by relying on the prediction of national "experts."

The data and findings of this study will provide information about what the business teachers in the state feel will be taking place in their

classrooms in the next five years. Such information will provide business education curriculum developers with an indication of how those in the field view curriculum and instructional changes. It will also provide a baseline against which data obtained in future surveys can be computed.

DEFINITION OF TERMS

Several terms unique to the field of business education or used in special ways in this study are defined below.

Vocational Business Education

Vocational business education is a program of education which equips the student with marketable skills, knowledges, and attitudes needed for initial employment and advancement in business occupations.

Basic Business Education

Basic business education provides the student with information and competencies which are needed by all in managing personal business affairs and in using the services of the business world.

Curriculum Patterns

Curriculum patterns are courses or subjects offered either singly or in a sequence.

Instructional Innovation

An instructional innovation is a teaching/learning procedure that varies from the traditional teacher-dominated lecture/discussion methods of teaching.

Small School

A small school is one in which the business education department consists of one or two business education teachers.

Medium School

A medium school is one in which the business education department consists of three or four business education teachers.

Large School

A large school is one in which the business education department consists of five or more business education teachers.

PROCEDURES

To answer the questions posed in the statement of the problem and its sub-problems and to test the hypotheses, information about the current business education programs in Nebraska secondary schools needed to be obtained. For that purpose, an instrument was developed, and the information gathered and analyzed.

Population

The population for this study consisted of all 7-12, 9-12, and 10-12 public secondary schools in the state of Nebraska that offered a business education program. No private or parochial schools were included in the study. The population was stratified into three categories of school size based on the number of business education teachers in the school.

Through information supplied in the 1975-76 Nebraska Educational Directory, the name of the business department chairman of those schools

in the state that had department chairmen was determined. In the remaining schools the teacher with the longest service at that school was selected. Of course, in those schools where only one full-time business education teacher was indicated, that person was selected regardless of the length of service at the school.

Once the name of a potential contact in each school was determined, a questionnaire with accompanying cover letter was sent. A reminder was sent two weeks later to those who had not responded. Two weeks following the reminder, a second questionnaire was sent to those who had still not responded. A copy of this questionnaire, the accompanying cover letter, the reminder postcard, and the cover letter for the second questionnaire are found in Appendixes A and B.

Instrument

The instrument used to secure the information for the study was an author-designed questionnaire consisting of sixty-eight items. The initial questionnaire was tried on a sample of business education teachers and revised to become the final instrument on the basis of comments provided by this pilot group. Most of the items required a check mark to indicate the response. However, a few items were open ended to allow the respondents to make additional comments or provide further information.

Analysis of the Return

The questionnaire returns were tallied and organized by the strata into which the population had been categorized. The hypotheses were tested by means of the Chi square test.

ASSUMPTIONS AND LIMITATIONS

Several assumptions underlie this study and several limitations have been imposed upon it. All of these must be kept in mind when the findings are interpreted.

Assumptions

Assumptions that underlie the study include: (1) The questionnaire used to gather the data was a valid and reliable instrument; (2) Those who responded to the questionnaire were representative of the general population of business education teachers in Nebraska and (3) The respondents gave honest answers to the questions.

Limitations

The limitations include: (1) No attempt was made to validate the results of the survey with an actual examination of the curriculum offerings of the schools surveyed; (2) Only a limited number of curriculum developments and instructional innovations were included in the questionnaire. Other changes in both areas might be anticipated but would not be reflected in the findings of the study; and (3) Anticipated changes were based on what teachers predicted which, in turn, may be a reflection of the past. New forces, pressures, or impetus from the outside could influence the amount and direction of change.

ORGANIZATION OF THE STUDY

The background for the study, statement of the problem, the hypotheses to be tested, the definition of terms, the procedures followed, and the assumptions and limitations of the study have been included in the present chapter. A review of relevant literature is

contained in Chapter 2. The procedures used to gather the data are described in Chapter 3. The fourth chapter contains an analysis of the data, while a summary of the study with conclusions and recommendations is found in the fifth and final chapter. Two appendixes make up the balance of the paper.

Chapter 2

REVIEW OF THE LITERATURE

To provide background and a frame of reference for this study, an extensive but selective review of the literature was conducted. The sources that were consulted in this literature review included: Educational Resources Information Center (ERIC), Dissertation Abstracts, National Business Education Association Yearbooks and Journals, Publishing Companies' House Organs, Business Education Monographs and Methods Textbooks, The Journal of Business Education, American Vocational Association Yearbooks and Journals, State Curriculum Guides, Delta Pi Epsilon Yearbooks and Journals, and professional textbooks, pamphlets, reports. From these sources were gleaned those chapters, sections, articles, and quotations that related most closely to the study being undertaken.

The review of the literature has been divided into three broad sections. That which relates most closely to general trends and developments in business education constitutes the first section, literature dealing with specific curricular areas has been included in the second, and program innovations have been considered in the third section.

BUSINESS EDUCATION IN TRANSITION

Business education has been defined as "a program of education which equips the student with marketable skills, knowledges, and attitudes needed for initial employment and advancement in business occupations and which also provides the student with information and

competencies which are needed by all in managing personal business affairs and in using the services of the world."[1]

As such, business education has a role to play in the preparation of all secondary youth as well as those who seek certain specialized vocational skills. Such a program qualifies as an important part of the secondary school curriculum and, as such, is subject to various pressures for change that beset all areas of that curriculum.

The Traditional Program

During much of the twentieth century, there has existed a fairly common framework of subjects into which the secondary school curriculum has been defined. This has been no less true of the business education program. Using such an operational definition, Douglas, Blanford and Anderson indicate that "a minimum basic business education program would include general business, typewriting, and consumer education and suggest that these three subjects be a starting point of business education to be included in the program of every American high school."[2] However, these same authors point out that additional business education courses would be needed to provide the vocational preparation that some students will seek.[3] In addition to the three subjects already mentioned, they suggest advanced typing, salesmanship, business organization, bookkeeping, record-keeping, office practices, shorthand, business law, and note taking.[4] Although such a listing of courses provides a useful bench mark against

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[1]Lloyd V. Douglas, James T. Blanford and Ruth I. Anderson, Teaching Business Subjects (3d ed.; Englewood Cliffs: Prentice-Hall, 1973), p. 23.

[2]Ibid., p. 28. [3]Ibid. [4]Ibid., p. 32.

which to measure the business education offerings by one or several schools, many factors currently in operation have resulted in a reexamination of the curriculum offerings in business education.

The Small High School

Few writers in the field of business education address themselves to the problem of the small high school. Tonne and Nanassey, however, address this question in their discussion of the business education curriculum. First, they point out that the small school differs from the large school only in degree.[5] However, they feel that "the ultimate solution to the problem of business in the small high school is the elimination of the small high school wherever possible. The gradual elimination of the small high school will benefit all segments of education."[6]

In a 1967 survey of small high schools in New York, New Jersey, and Pennsylvania, they report that the most popular subjects were beginning typewriting, which was offered in 98 percent of the schools followed by bookkeeping I, shorthand I, and general business. The least popular in the small high schools were advanced bookkeeping, consumer education, and data processing.[7] They recommend that the business education program in the small high school include general business, typewriting, and recordkeeping.[8]

Impetus For Change

As Forkner points out, "every major economic, political, or social change invaribly results in challenges to traditions. Yesterday's

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[5]Herbert A. Tonne and Louis C. Nanassy, Principles of Business Education (New York: McGraw Hill, 1970), p. 350.

[6]Ibid., p. 351. [7]Ibid., p. 355. [8]Ibid., p. 356.

patterns of work education were not designed for the space age."[9] He also asks, "has the teaching of business subjects changed and improved as a result of research, or do business teachers faithfully and blindly cling to teaching methods, materials, and standards developed in the 1800's?"[10]

The close relationship of social change to business education curriculums is further borne out by the findings of Hulbert who studied the changes in the status of business education in the public high schools of Indiana during the period of 1945-70 to see what impact societal influences had on business education curriculum. He concluded that:

> Identified educational forces were related to changes in business education enrollments, diversification of business education course offerings, continued high enrollment in bookkeeping, typewriting, and general business, increased enrollments in economics and advanced level integrated office education courses, decreased enrollment in second year shorthand and typewriting, and the establishment of data processing in business education curricula.[11]

Such recognition of the multitude of changes taking place in society and the necessity of the business education curriculum to respond to these changes has not gone unnoticed by many who are involved in the leadership roles of business education. For example, Popham, Schrag, and Blockhus state:

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[9]Hamden L. Forkner, "The World of Work in the Space Age," Business Education Meets the Challenges of Change, Fourth Yearbook of the National Business Education Association (Washington D. C.: NBEA, 1966) p. 3.

[10]Ibid., p. 4.

[11]Jack Earl Hulbert, "A Study of Business Education in the State of Indiana with Reference to the Probable Impact of Selected Societal Forces--1945-1970," (Unpublished PhD dissertation, Indiana University,1974).

> Education is in ferment. All education is reexamining itself and restructuring its programs. Business education, too, is undergoing scrutiny and transformation, and it has become imperative that both students preparing to teach and teachers long accustomed to traditional practices understand the emergent concepts of the field.[12]

As Johnson points out:

> We are experiencing uncertainty, unrest and turmoil, and questioning of our social, economic, and political institutions--including, of course, business and education. It appears that education will remain a dominant force in determining our way of life and value systems.[13]

Worthington puts it even more succinctly when he says:

> Business education, like all of education must be in a constant state of self-renewal. We cannot rest on our accomplishments of the past. We can no longer think in narrow terms. Business education must change if it is to remain dynamic.[14]

Anticipated Changes

What is the nature of the anticipated changes that will take place in business education? Ryoland, writing in the 1976 Yearbook of the National Business Education Association describes the implications that the Kettering Report has for business education and says:

> In an interdisciplinary instructional approach, business education can assume major responsibility for helping all students acheive the goal of economic understanding. Business education curriculums offer multiple options for teaching students responsibility in terms of personal finance, taxation,

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[12] Estelle Popham, Adele Schrag, and Wanda Blockus, A Teaching Learning System for Business Education (Chicago: McGraw Hill, 1975) p. 5.

[13] Margaret H. Johnson, "How Firm a Foundation," The Balance Sheet, April, 1975, p. 291.

[14] Robert M. Worthington, "Curriculum Development in Business and Office Education," Business Education Forum, November, 1973, p. 12.

> credit, and installment purchasing, and so forth--all aspects of the economic system. In view of the enormous potential of business education, it could conceivably become a catalyst in the burgeoning movement toward education reform.[15]

Career Education. During the past six years the concept of Career Education has become well known among educators and promises much in the way of educational reform. As one of the clusters of occupations in the Career Education concept, business education has an important role to play in this development. Career Education concepts will require the business education program to change many aspects of its present orientation to account for changes in the nature and function of office work and the impact of technology as well as provide for opportunities for career exploration among students who are in the prevocational decision point in their educational development.

As Byrnside says:

> America is just beginning to rediscover the value of Career Education. The process of change, however, will be a continuing one and the challenges are greater than ever for the future of business education.[16]

Technology. The NASSP curriculum report devoted to updating business education programs suggests that technology applied to business operation is both changing the character of many existing office positions and creating many new office processes and positions. Business education is

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[15]James R. Ryoland, Jr., "Kettering Report: A Challenge to Business Educators," Business Education: Yesterday, Today, and Tomorrow, Fourteenth Yearbook of the National Business Education Association (Reston: NBEA, 1976), p. 238.

[16]O. J. Byrnside, Jr., "Business Education and the Bicentennial," Business Education Forum, May, 1976, p. 1.

being modified to parallel these developments.[17]

The Face of the Future. Although the future face of business education is yet unclear, it is obvious from what is being said and written by many individuals in a wide variety of positions that the business education programs of tomorrow will be different from those of today. Although there may be no clear-cut directions when it comes to specifics, it is apparent that changes are taking place. As Wanous states:

> About one-half of our schools are feverishly engaged in both adding and dropping business courses, with the additions exceeding deletions by a considerable margin. Often the courses one school drops are the ones another school adds. Shorthand, for example, topped both lists. If this change in the mix of courses is an indication of intensive evaluation and a willingness to make changes to improve programs, we can conclude that business teachers are innovating--on a fairly broad scale.[18]

Reed's study of the business education programs in Iowa schools revealed a similar phenomena. He found that the most frequently mentioned courses that had been added to the curriculum in recent years were business law, general business, introduction to data processing, consumer education, and recordkeeping, while at the same time the most frequently mentioned courses that had been deleted from the curriculum in recent years were business law and general business.[19]

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[17]Harry Huffman and Clyde W. Welter, "Updating Business Education Programs," National Association of Secondary School Principals Curriculum Report, V, No. 1, October, 1975, p. 2.

[18]S. J. Wanous, "Secondary School Programs," The Emerging Content and Structure of Business Education, Eighth Yearbook of the National Business Education Association (Washington D. C.: NBEA, 1970), p. 312.

[19]Jack C. Reed, "The Status of Business Education in the Public High Schools of Iowa," (Unpublished EdD dissertation, University of Nebraska at Lincoln, 1976), pp. 145-46.

In the next section, an examination of some of the more specific curricular changes and program innovations will be made.

CURRICULAR CHANGES

To determine how social, economic, and technological changes and the emphasis on career development in business education translate into curricular changes has been the subject of many discussions, articles, and studies. Traditionally the business education curriculum has centered attention on such areas as typewriting, shorthand, general business, and bookkeeping. What does the rapidly changing world and the attempts of business education to respond to it mean in terms of changes in these traditional curriculum offerings? Are these courses being deleted from the curriculum? Are others taking their place? If so, what new courses are being advocated?

Traditional Courses

While many of the traditional course offerings in business education are being profoundly affected by the many changes that are taking place both within and without education, the popularity of the traditional business courses remains high.

Course Popularity

A recent national study of business education supervisors indicated that the availability of various business courses to be the following:

Typewriting	95%	Basic Business	90%	Business Math	82%
Bookkeeping	92%	Shorthand	90%	Business Law	74%[20]

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[20]Huffman and Welter, op. cit., p. 1.

Although Reed does not provide percentages, his findings parallel the NASSP report. He found that the courses with the largest enrollments were typewriting I, bookkeeping I, and personal typewriting in that order.[21] The most popular courses in small Iowa high schools were typewriting I, bookkeeping I, office practices, shorthand I, business law, and general business in that order.[22]

The most popular courses in the large Iowa high schools were typewriting I, personal typewriting, general business, bookkeeping I, business law, and shorthand I.[23]

Carl's study of curricular practices in business education in the high schools of Kentucky revealed that recent innovations in vocational curricula included subject matter clusters, work experience modules, and special projects for the disadvantaged and handicapped. She also found that enrollments and class offerings had increased in number and variety when compared with the offerings of 1931 and 1951.[24]

Typewriting, bookkeeping, and shorthand were the most popular business education offerings in the business education programs of the public secondary schools in northwest Arkansas according to the findings of Wheeless in 1964.[25]

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[21]Reed, op. cit., p. 144.

[22]Ibid., p. 145 [23]Ibid.

[24]Helen Hall Carl, "An Assessment of Curricular and Supervisory Practices in Business Education in the Public High Schools of Kentucky," (Unpublished EdD dissertation, University of Kentucky, 1974).

[25]Lovena Irene Wheeless, "An Evaluation of Business Education Programs of Public Secondary Schools in Northwest Arkansas," (Unpublished EdD dissertation, University of Arkansas, 1964).

Bookkeeping. While bookkeeping remains a popular business course, Reap reports that bookkeeping enrollments in public high schools, while still high, have not kept pace with the increase in total high school enrollments. She cites a six-fold increase in high school enrollments between 1922 and 1971 while bookkeeping enrollments only doubled during that same period.[26]

Bookkeeping has been influenced by the widespread use of the electronic calculator and computer. As Lloyd points out:

> Traditionally bookkeeping was offered for one or two years for the benefit of all students taking classes in the business area. However, the majority of recent studies clearly indicates that the high school bookkeeping program should encompass the use of business machines and data processing beginning concepts. A one-year high school course in bookkeeping machines is becoming more familiar in certain areas of the nation.[27]

General Business. Increasing enrollments in the area of general business have also been noted.

Furjanic reporting on a survey of the status of general business in two thousand large, medium, and small high schools found that enrollments in general business are gradually increasing. While 45 percent of the respondents indicated that enrollments in the past three years had remained the same, 30 percent had said they had increased, and only 20 percent said they had decreased.[28]

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[26]Margaret C. Reap, "Bookkeeping--Here From the Beginning," The Journal of Business Education, April, 1976, p. 321.

[27]Gary M. Lloyd, "A Business Education Curriculum Briefing for School Boards," Business Education Forum, May, 1974, p. 14.

[28]Sheila Whitney Furjanic, "Survey Findings on the Status of General Business Courses," Business Education World, May-June, 1976. p. 23.

Typewriting and Shorthand. Traditionally very popular courses, typewriting and shorthand have been influenced by the growing interest in individualized instruction.

White reviewed the literature on the research of individualized instruction in typewriting and shorthand over the past ten years. She concluded that individualized instruction was as effective as the traditional methods of teaching typewriting and shorthand.[29]

Holder and Gades describe the results of individualizing a typing program and state that:

> In the final evaluation of our program, the results were far more encouraging than we had hoped. The students in the individual class did as well--and in most cases better--in all areas than did the students in the traditional class.[30]

The question of what shorthand system to teach has also been raised in recent years. However, the Gregg symbol system remains highly popular. Reed found that Gregg shorthand was taught in 91.6 percent of the high schools in Iowa, while Forkner shorthand was available in 10.7 percent of the high schools.[31]

New Courses

Several new courses or approaches to business education are also being found in the curriculum. The more influential of these are noted below.

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[29]Kathryn White, "Review of Research on Individualized Instruction," Business Education Forum, January, 1976, p. 31.

[30]Birdie H. Holder and Robert E. Gades, "Some Reasons for Not Individualizing Typing," The Journal of Business Education, November, 1975, p. 73.

[31]Reed, op. cit., p. 146.

Word Processing. Jalowsky and Frame discuss the word processing center and its effect on office education. They define word processing as "a futuristic plan for blending procedures, personnel, and tools in order to convert ideas and concepts into writtern communications."[32] Then they go on to describe some of the equipment and facilities found in a word processing center as well as the procedures involved in the operation of such a center. They further point out that a teacher must modify his business courses in order to equip students with the word processing skills necessary for entry-level jobs.[33]

Anderson feels there is little doubt that the concept of word processing will spread rapidly in the future and bring about rapid increases in the use of dictation equipment during the next decade. Despite her prediction of the use of word processing, she goes on to point out that even with the support of word processing, it is questionable whether dictation equipment can make shorthand an archaic job requirement in the foreseeable future.[34]

However, Johnson cautions:

> Business and office educators should not let the present thrust of word processing frighten them or make them feel that their total program needs to be revised; however, some changes may be necessary to help prepare office workers to meet the challenges of today and the future.[35]

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[32]Toby B. Jalowsky and Terry M. Frame, "The Word Processing Center and Its Effect on Office Education," Business Education World, May-June, 1974, p. 14.

[33]Ibid., p. 15.

[34]Ruth I. Anderson, "The Need for Shorthand in the Automated Office," Business Education World, January-February, 1976, p. 18.

[35]Arlene Johnson, "Word Processing--Your Curriculum is Showing," Business Education Forum, March, 1976, p. 5.

Data Processing. The rapid developments in the area of electronic calculators and computers have led to the implementation of data processing courses in the business education curriculum. Lloyd says that recent surveys indicate that data processing should be introduced at the secondary level by the development of a one- or two-semester course.[36]

Majernik is even more emphatic when he states that "automated data processing instruction should be included in the curriculum of every secondary school! The issue is not debatable."[37]

Kinzey also points out that greater significance has been added to the teaching of office adding and calculating machines in recent years. The current trend is toward a course designed for office machines instruction exclusively.[38]

The increasing popularity of data processing is further attested to by Smith's study in which he surveyed 750 schools to determine the extent to which data processing courses were offered in secondary schools. He found that 39 percent of the responding schools offered courses in data processing and only 20 percent of the schools offered one-year programs. The business departments had the responsibility for data processing in over half of the responding schools.[39]

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[36]Lloyd, op. cit., p. 14

[37]John A. Majernik, "ADP--A Must in the Secondary School," Business Education Forum, March, 1974, p. 35.

[38]Vera G. Kinzey, "Office Machines Equipment Selection," The Journal of Business Education, January, 1975, p. 145.

[39]Alfred E. Smith, "Survey of Data Processing Instruction in Selected Public Schools of the United States (Unpublished EdD dissertation, University of Nebraska, Lincoln, 1974).

Consumer Education. The importance of economics in the social fabric of the nation is reflected in the growth of interest in courses in business principles. Carlock describes the objectives of such a course where each student will acquire a vocabulary of business terms; each will feel a part of the business world; and by actually seeing business in action, they will be able to relate the importance of business in our economy and explain the activities involved in the successful operation of a business.[40]

Another reflection of the concern over the economic aspects of society is the increasing interest in consumer education. Hopkins describes this role as consumers (individuals) using the results of production and as citizens, they make economic decisions by exercising their right to vote. He also surveyed Area Vocational Technical Institutions in Minnesota and found that over half of them offered courses in the area of consumer education.[41]

Jelly discusses many of the issues that have developed over the increasing interest in the offering of consumer education at the high school level. One of the conclusions that he reaches is that regardless of how the various issues are solved, the important thing, of course, is to have a consumer education program. He also foresees that consumer education will continue to grow as an important part of the curriculum of the secondary schools.[42]

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[40]LaNeta L. Carlock, "Business Principles and Management--A Time For Action," Business Education Forum, April, 1975, p. 18.

[41]Charles R. Hopkins, "Consumer Education--A Need that Must be Met," Business Education Forum, May, 1976, p. 26.

[42]Herbert M. Jelley, "Issues in Teaching Consumer Education," Business Education: Yesterday, Today, and Tomorrow, Fourteenth Yearbook of the National Business Education Association (Reston: NBEA, 1976), p. 176.

Recordkeeping. Another change in the curriculum has been in the area of recordkeeping as is pointed out in the NASSP curriculum report. They state that in business education programs, increased attention is being given to recordkeeping as distinguished from bookkeeping and accounting.[43] Further, the authors of this issue point out that micrographics is becoming an important topic because many business organizations today are storing all their records including accounting records on microfilm to save time and space in storing and retrieval.[44]

Reprographics. Rapid changes in reproduction technology are also having a curricular impact. The authors of the NASSP bulletin point out that:

> The proliferation of new types of reproduction equipment is having a tremendous influence on the office . . . . Some schools now are including it in some of their business education course topics such as (1) ways to paste up copy for duplication to avoid retyping, (2) cost factors to be considered on making methods of copy preparation and duplication to use for specific jobs and (3) specific ways in which office workers can help to keep duplicating costs under control.[45]

INNOVATIONS

Not only has business education responded to social, economic, and technological changes by making curricular changes, but many other aspects of the business education program have changed due to developments that have taken place in these areas.

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[43]Huffman and Welter, op. cit., p. 192.

[44]Ibid., p. 3.

[45]Ibid.

Technological Influences

Nowhere is this more apparent than in the area of technology. Not only have technological changes resulted in new curricular emphasis and new course developments, but the products of technology have been applied directly to the teaching of many business subjects themselves.

Goodin studied the business education program in the public secondary schools of Nevada in 1972. Based on the conclusions that he drew from this study, he recommended that enrichment of business education programs might occur by modifying and updating equipment that should be found in business education classrooms.[46]

Typewriting. Many of these changes have been applied to the area of teaching of typewriting. Those companies that have produced the written materials for business education are among those who have advocated the utilization of technological developments as well. For example, the Gregg-McGraw Hill Publishing Company advocates the use of the Gregg Pacesetter which is designed to develop speed and accuracy in typewriting and transcription. It has two separate functions--pacing and timing. As a pacer, the instrument automatically maintains the speed at which the learner wishes to perform. As an interval timer, it signals the end of timed writings that are at one, two, three, or four minutes long.[47]

Similarly, the Diatype Analyzer developed by the Automata Corporation is an electrical device that can be placed on a typewriter and can be used to diagnose students' typing problems.

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[46]Eddie Herbert Goodin, "The Status of Business Education in the Public Secondary Schools of Nevada." (Unpublished EdD dissertation, Arizona State University, 1973).

[47]Popham, Schrag and Blockus, op. cit., p. 115.

Douglas, Blanford, and Anderson describe the diatype as:

> A motor-driven typewriting platen used to diagnose typing difficulties. The regular platen is replaced by the diatype which pulls the typing paper through the typewriter at a constant rate thereby producing diagonal rather than the usual vertical lines of typing. These diagonal lines show the time lapses between the stroking of letters as well as hesitations in typing. Analysis of the diagonal lines makes possible the diagnosis of students' stroking patterns.[48]

Another technical device aimed at the improvement of teaching typing is the Keychart Educational Equipment (KEE) which is designed to help students learn the basic keyboard skills through the use of electronic devices and simulators. One aspect of this device consists of:

> . . . an illustrated panel, a speed selector and a perforated tape reader. As the tape runs through the reader, it illuminates keys on the keychart. The students respond to this flashing of keys by striking corresponding letters or symbols on their own typewriters.[49]

A simulator is also available for totally individualized typing instruction. It operates with programmed punched tapes and student guides for keyboard training, remedial instruction, and skill improvement.[50]

The increasing number and varieties of electric typewriters and their increasing use in offices is perhaps familiar to everyone. In 1963 Freeman and Binnion said:

> It is safe to say that each typewriting room should be equipped with at least one electric typewriter for the use by advanced typewriting students. Later, as replacements are made, others should be added until every classroom has a ratio of about one electric machine to each five or six manual machines.[51]

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[48]Douglas, Blanford and Anderson, op. cit., p. 192.

[49]Gregg Division, McGraw Hill Publishing Company, advertisment materials, 1974.

[50]Ibid.

[51]M. Herbert Freeman and John E. Binnion, "The Good Business Education Department Is Adequately Housed and Equipped," The Business Education Program in the Expanding Secondary School (Washington, D.C.: National Business Education Association, 1963), p. 41.

More recently Panagoplos writes that to help make a decision about the future purchases of electric or manual typewriters, a survey was conducted of local offices to determine whether manuals or electrics were used more frequently. He found that 95 percent of typing work stations in the area used electric typewriters. Many of the firms indicated that they were going to phase out all manual typewriters shortly. He suggests that based on these facts, "business educators should reevaluate their adherence to tradition in the typewriting program."[52]

Knott studied the business education programs in the public secondary schools of Illinois outside of Chicago. Among the implications that he drew from his findings were that all high schools should provide a sufficient number of electric typewriters and office machines to give students minimum skills on the electric typewriters and acquaintanceship training on the various office machines.[53]

Even within the area of electric typewriters, considerable advances have been made. The development of proportional spacing typewriters, self-correcting machines and the automatic typewriters that utilize the magnetic cards and tapes and other memory devices represents another generation of developments in this field.

Witherow discusses the use of word processing input equipment particularly the magnetic tape Selectric typewriters and says that secondary students do need training on data entry devices because in

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[52]Nicholas A. Panagoplos, "The Status of Electric Typewriters," Business Education World, September-October, 1974, p. 31.

[53]James Francis Knott, "A Study of Business Education in the Public Secondary Schools of Illinois (Excluding Chicago)," (Unpublished EdD dissertation, Northern Illinois University, 1970).

entry-type positions they will be initiating much of the input for the program. Likewise, equipment which will sharpen student skills and develop awareness of information flow is important.[54]

Studies of the extent to which these devices are actually being used are few in number. However, Reed found that electric typewriters were available in 99.2 percent of all responding high schools, automatic typewriters were available in only twelve of the responding high schools, and very little use was being made of pacing devices in typewriting classrooms.[55]

Shorthand. The teaching of shorthand has also received its share of innovative devices. The increasing use of word processing in many businesses has resulted in increasing utilization of dictation/transcription machines in many secondary school business courses. Frequently, these machines are coupled with multi-channel dictation equipment.

Leemaster describes the multi-channel listening equipment in the following way:

> Multi-channel listening equipment makes available several channels of information from which the students can choose. The student is limited, however, to the number of channels which the equipment is capable of delivering.[56]

The extent to which multi-channel dictation equipment was being used in the teaching of shorthand was the subject of a survey by Krajicek. She found that about 60 percent of the schools were using the equipment

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[54]Mary Witherow, "High School Training in Word Processing," The Journal of Business Education, February, 1975, p. 193.

[55]Reed, op. cit., p. 148.

[56]A. James Leemaster, "Tuning in to Shorthand," Business Education World, September-October, 1973, p. 26.

or have immediate plans to have equipment installed. The same study indicated further that the teachers that used the equipment in their teaching had enthusiastic claims for it and its effects on student achievement.[57]

Reed found that the most frequently used shorthand equipment which was reported by 31.1 percent of all respondents was the multi-channel dictation equipment.[58]

Despite the apparent popularity of this equipment, however, other research has indicated that students using multi-channel equipment for dictation practice did not achieve higher skill than did the students who had their dictation practice live from the teachers.[59]

Also, renewed interest on the part of many on the use of touch or machine shorthand has resulted in the utilization of Stenograph, Steno-print, or Stenotype machines at the secondary level.

Stelter reports on a study he conducted in which students studying Gregg shorthand were compared with an equated group studying touch shorthand. She found that touch shorthand writers can compete equally well with the writers of Gregg shorthand, and the theory is easier for average and low-average students to learn.[60]

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[57]"Research in the Use of Multiple-Channel Equipment in the Teaching of Shorthand," Monograph No. 121 (Chicago: South-Western Publishing Company, 1969), p. 50.

[58]Reed, op. cit., p. 148.

[59]Mary Margaret O'Connel, "The Effectiveness of Programmed Shorthand Materials" National Business Education Quarterly, Spring, 1968, p. 33.

[60]Gayle A. Stelter, "Adding Touch Shorthand to Your Business Curriculum," Business Education Forum, October, 1974, p. 14.

Lesser describing teaching methods for machine shorthand describes the relationship between technical developments and instructional methods as follows: "During these times of computerization and other technologies that are designed to reduce labor and time, the vigilant teacher continually looks for better and quicker methods of teaching."[61]

Clayton points out that although alphabetic and machine shorthand systems have been gaining in usage, symbol systems are predominantly taught in most high schools. The employment needs of students must be considered when selecting the most appropriate system. The teacher will then need to devise and execute teaching strategies peculiar to the particular system and appropriate for the students.[62]

Data Processing. To effectively offer data processing courses, certain types of basic associated equipment is frequently used. Such devices as the keypunch machine, card sorter, card punch simulators, and even computer terminals themselves are finding their way into business education classrooms.

Simms claims that a computer terminal should be included in a secondary business machines course. He bases this on the anticipated increase in the need for trained terminal operators, and claims that many urban high schools could provide terminal operation training at a very small increase in cost.[63]

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[61]Irvin H. Lesser, "Teaching Methods for Machine Shorthand," The Journal of Business Education, December, 1975, p. 116.

[62]Dean Clayton, "Essential Elements of Shorthand Instruction," Business Education Forum, December, 1974, p. 13.

[63]Richard F. Simms, "Business Education and the Computer Terminal," The Balance Sheet, November, 1974, p. 119.

Not only have technological developments in the field of electronics resulted in the development of the large computer, buy they have also resulted in the wide spread availability of small electronic calculators available to virtually every business and more recently individuals.

As the curriculum report prepared by the NASSP indicates:

> Electronic calculators as every reader of advertisements knows, are available in many models and in a wide range of prices. So before long nearly everyone will have access to one for personal or business use.
>
> Office machine instruction is being modified to place greater emphasis on the electronic calculator as a tool in solving business problems. Such instruction is being given in courses that are devoted solely to the electronic calculator as well as in courses that combine instruction on this instrument with instruction on other adding and calculating machines.[64]

Flashner points out that the price of calculators has decreased to the point where a battery of them can and should become standard equipment in the business mathematics classroom.[65]

However, Reed found that data processing equipment was available in only a small percentage of Iowa high schools. Of the data processing equipment that was available, he found that the keypunch machine ranked highest and the computer ranked the lowest.[66]

Reprographics. New technological advances in the area of reproduction prodecures have also resulted in innovative devices in the area being introduced into the business education program.

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[64]Huffman and Welter, op. cit., p. 4

[65]Esther D. Flashner, "Maintaining High Standards in Business Mathematics and Accounting," Business Education World, January-February, 1975, p. 16.

[66]Reed, op. cit., p. 147.

Copying machines, stencil-making machines and folding and collating machines are all receiving serious consideration by those schools who are giving serious emphasis to areas of reprographics. The NASSP report stated the proliferation of new types of reproduction equipment is having a tremendous effect on the office by making possible the quick copying and distribution of documents at a fairly reasonable cost.[67]

Reed reported that some type of coyping machine was available in more than half (59.1 percent) of the responding high schools in Iowa. Collating and folding machines ranked low in classroom availability in comparison to all other business machines.[68]

Organizational and Instructional Developments

Innovations of nontechnical nature are also having their impact on the business education program.

Simulation. The concept of simulation has found its way into the business education program through the utilization of office simulation laboratories.

Gentzel defines office simulation as follows:

> A real organization of students formed under the direction of the teacher that carries on integrated office functions at a level of intensity and in a facility which corresponds very closely to those of a technical business office.[69]

Through this means, the conditions of a real office situation are approximated to the greatest extent possible, thus, providing the business

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[67]Huffman and Welter, op. cit., p. 3.

[68]Reed, op. cit., p. 149.

[69]W. Eugene Gentzel, "An Overview of Office Simulation," The Balance Sheet, November, 1973, p. 104.

education student with realistic experiences in office procedures and the skills inherent in these. Helen Lynn describes the advantages of office simulation as follows:

> Through simulation, students can apply their business skills, improve those skills, add new skills, and develop attitudes, work habits, and character traits that not only made them successful in their job search but also lead to success in holding those positions.[70]

Wunsch says "one of the principal objectives of model office simulation at the high school level is to help students define those desirable interpersonal relations that make for success in office occupations."[71] He also reports on a study that compared office simulation with traditional office practices classes and concluded that although the model office simulation in that study did not prove significantly better than the traditional office practice in developing desirable interpersonal relations, it certainly did compare favorably. Moreover, model office simulation presents an effective learning situation that is more representative of a true office setting.[72]

Shorthand Instruction. New techniques of teaching areas like shorthand also are becoming a part of many business education programs. The utilization of the block program for shorthand or office practice instruction whereby the time set aside for instruction in these areas consists of longer blocks than the typical 40-60 minute class period is finding increasing favor with business education teachers. Utilization of such

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[70]Helen Lynn, "Office Simulation Brings Stimulation and Enthusiasm," Business Education Forum, May, 1976, p. 24.

[71]Alan P. Wunsch, "Model Office Simulation Improves Interpersonal Relations," Business Education Forum, January, 1975, p. 5.

[72]Ibid., p. 6.

blocks of time allow for greater concentration on the particular areas of learning and the increased development of specific skills.

Schmidt reports that there is widespread acceptance and support of the block program in shorthand instruction. Further, she says so widespread is the support that in 1972 Poland reported from a survey of state supervisors that at least 95 percent of the states had some form of block programs at the secondary level.[73] However, she also points out that the block program approach requires the availability of instructional materials and facilities needed for learning experiences based on simulated office conditions.[74]

Micromolar shorthand instruction techniques represent one example of the application of new learning theory to business education instruction.

Blyth describes the micromolar learning theory as follows:

> A theory which maintains that speed is a component of what is learned because a fast response is a different response from a slow one. The speed element is considered to be a 'micro' characteristic of a response and thus an identifying, inherent property of the response.[75]

Through this means, students are required to take dictation at very high rates of speed early in their program thus forcing them to develop high levels of skill early. This is in contrast to older more traditional techniques whereby a student starts at a relatively low rate of dictation speed and then gradually increases over a period of time.

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[73]B. June Schmidt, "The Effectiveness of the Stenographic Block Program," Business Education Forum, March, 1975, p. 13.

[74]Ibid., p. 16.

[75]Doris Howard, "Individualize Early Dictation," Business Education Forum, March, 1971, p. 21, cited by Mary M. Blyth, "If You Read the Forum, You Know," Business Education Forum, January, 1974, p. 2

Another technique applied to the teaching of shorthand is the Individual Progress Method (IPM) which attempts to provide students with an opportunity to progress in the development of shorthand skills at a pace suited to individual learning rates and at a style suited to the individual's learning style.

The interplay between instructional techniques and technological advances can be seen from Perry's descriptions of the IPM shorthand program which was:

> Each of the thirty-two learning stations in four classrooms was equipped with an electric typewriter, a cassette playback unit, and a multi-channel selector. The master control room was equipped to accomodate all operations of the newly created individualized learning center.[76]

Leemaster describes the individual progress method as:

> The method of the future in education. Materials and classes are being structured around student ability rather than around semesters, quarters, or credit hours. This type of teaching is perhaps the hardest and most demanding, but it is also the most rewarding.[77]

Cooperative Office Education Program. There has also been an emphasis on cooperative office education programs in the last decade. In such programs students are placed in actual jobs during the later stages of their secondary school programs, usually at the senior level. Through this means, the student has an opportunity to participate in actual office settings and thus apply the office skills in actual situations. Such an approach provides for a better meshing of the theoretical with the practical.

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[76]Devern Perry, "Meeting Students' Needs: Individual Progress in Shorthand," Business Education World, March-April, 1974, p. 5.

[77]A. James Leemaster, "Managing Individual Progress Work," Business Education World, November-December, 1973, p. 27.

Kingston surveyed the status of cooperative office education in New Jersey and found that the use of cooperative office education has increased during the past years and a further increase was anticipated.[78]

Mini Courses. Selden and Cubler say that a mini course is "a relatively recent innovation in education. It is not the answer to every problem, but its future as an educational concept appears bright."[79] They go on to point out several advantages that might accrue from the implementation of a mini course program as well as point out a number of considerations that need to be considered when developing such a program.

Waterman and Johnson describe a program of mini courses in business education offered at Wausau East and Wausau West High Schools in Wisconsin. They proposed a series of nine-week courses that would do such things as minimize repetition of units, help students select courses needed to fulfill his or her potentials, improve staff utilization, offer titles more stimulating to student interest, and attempt to interest students in business subjects at an earlier age.[80]

Reed found that mini courses were quite popular for personal use and job orientation.[81]

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[78]Carmela C. Kingston, "A Study of the Status and Effectiveness of Cooperative Office Education in New Jersey 1968-69," The Journal of Business Education, January, 1972, p. 165.

[79]William Selden and Charlotte D. Cubler, "Mini Courses--A Challenge for Business Education," The Balance Sheet, October, 1974, p. 57.

[80]Elsie Koski Waterman and Lorene Johnson, "Mini Courses--Our Goal," The Journal of Business Education, October, 1973, p. 25.

[81]Reed, op. cit., p. 145.

Ruhl describes the experiences of offering several mini courses in business education to ninth graders. The mini courses in this case range from two to four weeks in duration and centered about topics of consumerism. She concluded that such a program was highly successful.[82]

Team Teaching/Flexible Scheduling. Other innovations that have been applied to many areas of the secondary school also have had their impact on the business education program. Team teaching and flexible or modular scheduling are two of the more well-known school innovations that would be found in this category.

Bennett defines modular scheduling as:

> A technique whereby class periods vary in both frequency and length. Traditional time periods are replaced with modules of time which may be 15, 20, or 30 minutes depending on the particular school. Also, the students' time may be distributed between large lecture groups, small seminar groups, laboratory groups, or free time for independent study, student-teacher conferences or relaxation.[83]

Wanous describes team teaching as:

> Another classroom innovation that is attracting widespread interest and that has been adopted by a surprising number of secondary schools. The business classes team teaching programs are underway in general business, business arithmetic, typewriting, and without a doubt other subjects. Reports of teachers involved in these programs are very enthusiastic. There are few business subjects in which team teaching cannot be used.[84]

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[82]Carol Lynne Ruhl, "A 'Mini' Course Reaps 'Maxi' Results," The Balance Sheet, May, 1973, p. 343.

[83]James C. Bennett, "Curricular Developments in Business Education for the Low-Achieving Student," The Balance Sheet, September, 1973, p. 9.

[84]S. J. Wanous, "Preparation and Retraining of Business Teachers for Change," Business Education Meets the Challenges of Change, Fourth Yearbook of the National Business Education Association (Washington D.C.: NBEA, 1966) pp. 224-25.

She also predicts that the practice of team teaching is bound to spread.[85]

Behavioral Objectives/LAPS. Of more recent vintage are the development and utilization of explicitly stated behavioral or performance objectives and the utilization of learning activity packets (LAPS).

Kaisershot traces the beginning of interest on behavioral objectives to the late 1960's and early 1970's when pressure for educational results was being exerted. He cites several reasons for the increased interest in behavioral objectives including the emphasis on individualized instruction, accountability, and the heavy funding of education which resulted in a need for determining the effectiveness of instruction. He concludes by saying:

> Whatever the reasons for the push, a number of educational agencies, administrators, school boards, and teachers have engaged themselves in the task of writing precise measurable instructional objectives for programs and courses of study--and business educators can be found in the midst of this worthwhile endeavor.[86]

Brown points out that so far most efforts to apply behavioral objectives to business education courses have taken place in skill courses or job-related courses because the task is easiest there. He states that behavioral objectives are really an extension of the specific objectives that have been used in typewriting and shorthand for many years, and that applying behavioral objectives to basic business courses is quite another matter.[87]

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[85]Ibid., p. 229.

[86]Alfred Kaisershot, "Behavioral Objectives and Business Education," The Balance Sheet, February, 1976, p. 213.

[87]Richard D. Brown, "More Specific Objectives in Basic Business," The Balance Sheet, November, 1972, p. 116.

King describes a LAP as a self-contained set of teaching-learning materials designed to teach a single concept and structured for individual and independent use in a continuous progress school program. A well-written LAP can expose a student to a variety of instructional techniques by varying the nature of the activities. The process of student selection of appropriate learning activities individualizes instruction.[88]

Instructional Media Centers. The development of new media, both of the print and nonprint type, have lead to the establishment of instructional media centers (IMCS) for business education programs and the increasing use of individualized instruction and mini courses has led to a development of such facilities in the business education area as well.

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[88]Nicholas King, "Hey! Where's My Next LAP?," The Journal of Business Education, January, 1976, p. 184.

Chapter 3

DESIGN OF THE STUDY

This study was designed to survey business education teachers in the state of Nebraska to determine the present business education curriculum offerings and what changes in these curriculum patterns in terms of additions, deletions, and enrollments these teachers anticipate. The study was also designed to determine what material, facility, instructional and organizational innovations had been adopted in the business education programs in Nebraska schools and which of these innovations not yet adopted were anticipated being so by these teachers. Furthermore, it was designed to determine if differences existed in these areas by school size.

HYPOTHESES AND STATISTICAL TESTS

The problem of determining present business education curriculum offerings and program innovations as well as what changes were anticipated in these areas by teachers in this field was translated into several hypotheses which, in turn, could be tested by appropriate statistical tests.

Hypotheses

The hypotheses into which the problem was translated are stated below.

Hypothesis 1. No significant differences in the present business education curriculum offerings exist between schools of various sizes in Nebraska.

Hypothesis 2. No significant differences in the anticipated business education curriculum offerings as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Hypothesis 3. No significant differences in the anticipated enrollments in business education courses as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Hypothesis 4. No significant differences in the current adoption patterns of business education program innovations as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Hypothesis 5. No significant differences in anticipated adoption patterns of business education program innovations as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Statistical Tests

To test these hypotheses, the Chi square test of significance for proportions was used. Significance levels of .05 and .01 were established for the rejection of the hypotheses.

PROCEDURES

Since this study involved a survey of both present and anticipated business education programs in the state of Nebraska, a determination of

what schools would be included in the study and who would be contacted in each needed to be made.

Population

Only those public secondary schools that offered a business education program were included in the population of this study. This included 7-12, 9-12, and 10-12 public schools and excluded all parochial, private, and public middle or junior high schools.

The schools were identified from information supplied by the 1975-76 Nebraska Educational Directory. A total of 330 schools fit the criteria established for inclusion in the study.

The schools were classified into three categories--small, medium, and large--based on the number of business education teachers in each school. A small school was defined as one in which the business education department consisted of one or two business education teachers; a medium school was one in which the business education department consisted of three or four business education teachers; and a large school was one in which the business education department consisted of five or more business education teachers.

For purposes of contacting the schools, the department chairman of those schools that had business education department chairmen was identified. In all other schools, the teacher with the longest service at that school was selected. Of course, in those schools where only one full-time business education teacher was indicated, that person was selected regardless of the length of service at the school.

Instrument

To obtain the data about the schools included in the survey, an

author-designed questionnaire[1] was used. The questionnaire consisted of sixty-eight items and was divided into four sections. Each section is more fully described below.

General Information. Part I of the questionnaire asked the respondents to provide basic information about the school including its name, address, enrollment in grades 10-12, organizational pattern, and the number of full- and part-time business education teachers.

Curriculum Offerings. The second part of the questionnaire contained a listing of thirty-one courses commonly included in business education programs. The respondents were asked to indicate which of these courses were presently offered in their school. They were also asked to indicate whether any of those presently offered would be dropped in the next five years and if any of the courses not presently offered would be added in the next five years. For those courses that were presently offered, the respondents were asked to indicate the current enrollment and to predict whether this enrollment would remain the same, increase by more than 20 percent, or decrease by more than 20 percent in the next five years. Space was allowed for respondents to add other courses not included in the original listing.

Innovations. Part III of the questionnaire contained a listing of twenty-two material/equipment innovations related to business education and eleven instructional/organizational innovations. Respondents were asked to indicate which of these innovations were presently adopted by their

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[1]A copy of the questionnaire with accompanying cover letter can be found in Appendix A.

school. Of those innovations that were not adopted, respondents were asked to predict which might be adopted within two years, which might be adopted within five years, and which would not be adopted at all.

Additional Information/Comments. The last part of the questionnaire provided the respondents with space and opportunity to provide additional comments and information about the business education program at their school.

Data Collection

The 330 questionnaires with accompanying cover letters were mailed March 26, 1976. Two weeks after the first mailing, a reminder postcard[2] was sent to those who had not responded. After two additional weeks, a second mailing of the same questionnaire was sent to those who still had not responded.

The initial mailing of the questionnaire resulted in responses from 190 schools or 57 percent of those contacted. The reminder postcard resulted in fifty-two more responses raising the return rate to 73 percent. The second mailing brought the total of responses to 295 or 89 percent which was considered adequate for the purposes of the study. Although two additional questionnaires were received later, the information contained in them was not used in the study. Of the 295 respondents, three declined to participate or else indicated that they had no business education program. Further investigation revealed that six of the remaining 292 questionnaires were unuseable; thus, the analyses was based on 286 returns or 86 percent of the population.

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[2]A copy of the reminder postcard can be found in Appendix B.

The useable returns were analyzed by size of school and were found to be distributed reasonably well by each category. The rate of useable returns from respondents in small and large schools was 88 percent each, while 74 percent of those contacted in medium sized schools returned useable questionnaires. This data is also displayed in Table 1.

Data Processing

The data on each useable questionnaire was coded onto IBM computer coding forms and then keypunched on IBM computer punch cards. The University of Nebraska at Omaha Computer Center then processed the data and provided the appropriate statistical analyses. The results of these analyses are contained in the next chapter.

Table 1

Number and Percentage of Useable Questionnaire Returns by School Size

School Size	Number Sent	Number Returned	Percent of Return
Large	25	22	88
Medium	35	26	74
Small	270	238	88
TOTAL	330	286	86

Chapter 4

ANALYSIS OF THE DATA

In this chapter an analysis of the findings of the study is presented. The first section of the chapter contains a description of the analysis procedures that were followed, while a summary of selected general information about the responding schools is contained in the second section. The analysis of the present business education curriculum offerings and of the anticipated curricular and enrollment trends is found in the third section. The fourth section contains an analysis of present and predicted business education program innovations. The fifth and final section consists of a summary of the findings.

ANALYSIS PROCEDURES

The data was taken from 286 useable questionnaires, transferred to computer coding forms, and submitted to the University of Nebraska at Omaha Computer Center for analysis. The analysis provided by the Center included frequencies and percentages for each of the questionnaire items. For some items, averages were calculated where it was appropriate and meaningful to do so. Chi square values were determined to test for significant differences between school types on responses to most of the items.

Summary Data

The summary data in the form of frequencies, percentages, means, and Chi square values provided by the computer print-out served as the

basis for the initial analysis. When the initial examination of these statistical results indicated, further analyses were conducted and consisted primarily of further Chi square tests. The latter were calculated by hand.

Hypotheses Testing

One aspect of the data analyses was to determine the number and percentages or proportion of schools that presently offered a particular course or had adopted a particular program innovation as well as what trends were anticipated in these areas in the next five years.

The other aspect of the data analyses was designed to test the hypotheses about differences in school size relative to these areas. Some of the hypotheses testing was provided by the Chi square values furnished through the computer analyses of the data. In general, this analyses gave broad global comparisons on different aspects of the questionnaire by school size. Where significant Chi square values were found in this initial analyses, further more detailed comparisons were then made by means of hand calculations. Further Chi square tests were run to determine between which size schools the significant differences existed. This general pattern of analyses was repeated for all aspects of the data.

The Chi Square Test

The Chi square test of hypothesis or significance is used to measure discrepencies existing between observed and expected frequencies. If the computed value of Chi square is greater than some critical value, it is concluded that observed frequencies differ significantly from expected frequencies and the hypothesis of no significant difference is

rejected at the appropriate level of significance. Since in this study no theoretical expected frequencies were known, formulas for computing Chi square which involved observed frequencies were used. The computer analysis provided Chi square values for large contingency tables. The subsequent hand calculations involved 2 by 2 or 2 by 3 contingency tables.

GENERAL INFORMATION

The initial section of the questionnaire asked respondents to provide general information about their school and business education program. While much of this information was designed for identification purposes only, two items in this section were of additional interest, and thus were analyzed to limited extent. These items include the organizational pattern of the school and the number of part-time faculty teaching business courses.

Organizational Pattern

Respondents were asked to indicate whether their school had a 7-12, 9-12, 10-12, or some other organizational pattern. Of the 286 respondents, 250 provided answers to this question. A summary of these responses can be found in Table 2. As might be anticipated, most of the small schools had a 7-12 or 9-12 organizational pattern. Of the small schools, 95 or 46.1 percent had a 7-12 pattern, while 85 or 41.3 percent had a 9-12 pattern. On the other hand, almost one half of the medium schools (47.8 percent) and over four fifths of the large schools (81 percent) had a 10-12 organizational pattern. Slightly over 10 percent (22) of the small schools indicated a pattern other than the three listed. Further examination of the questionnaires returned by these schools indicated that they listed a K-12 organizational pattern.

Table 2

Organizational Patterns of Small, Medium, and Large Schools in Nebraska

Type of School	Organizational Pattern							
	7-12		9-12		10-12		Other	
	No.	%	No.	%	No.	%	No.	%
Small (N=206)	95	46.1	85	41.3	4	1.9	22	10.7
Medium (N=23)	3	13.0	9	39.1	11	47.8	0	0
Large (N=21)	2	9.5	2	9.5	17	81.0	0	0
Total (N=250)	100	40.0	96	38.4	32	12.8	22	8.8

Part-Time Teachers

Also of interest was the extent to which part-time teachers were utilized in business education instruction in Nebraska. Table 3 contains a summary of the results of the responses to this question.

Interestingly the small and the large schools tend to make less use of part-time business teachers than do the medium schools. Of the medium schools, ten or 38.5 percent indicated that they used one part-time teacher and five or 19.2 percent indicated that they used two part-time teachers. Thus, over half of the medium schools make use of part-time business education teachers. On the other hand, less than a fourth of either the large or small schools utilize part-time teachers in the business program. One explanation for this phenomenon is that the small schools tend to have only one teacher in each area of the subject, while the large schools have a sufficient diversified program so that it is possible to employ teachers in a department on a full-time basis. Medium schools can do neither.

CURRICULUM OFFERINGS

Part II of the questionnaire asked the respondents to provide information about several aspects of their business education curriculum. First, they were asked to indicate what courses were presently offered, which courses they felt would be added to the curriculum within a five-year period, and which would be dropped from the curriculum within a similar time span. They were also asked to indicate the current enrollment in those courses presently offered and to predict whether these enrollments would remain stable, increase by more than 20 percent, or decrease by more than 20 percent within a five-year period.

Table 3

Number of Part-Time Business Education Teachers in Small, Medium, and Large High Schools in Nebraska

Type of School	Number of Part-Time Teachers							
	0		1		2		3	
	No.	%	No.	%	No.	%	No.	%
Small (N=238)	179	75.2	51	21.4	7	2.9	1	.4
Medium (N=26)	11	42.3	10	38.5	5	19.2	0	0
Large (N=22)	17	77.3	1	4.5	3	13.6	1	4.5
Total (N-286)	207	72.4	62	21.7	15	5.2	2	.7

Current Curricular Offerings

The data on current curricular offerings was first summarized by each type of school and for all schools. Then tests of significance for differences between school size were conducted.

Course Popularity. A review of the data revealed that first year accounting/bookkeeping was the most frequently offered course in the business education programs in Nebraska. This data is found in Table 4. Of the 286 respondents, 278 or 97.6 percent of the schools indicated that this course was included in their business education program. All of the medium and large schools offered this course and 231 or 97.1 percent of the small schools offered the course.

The second most popular course was first year typing with 258 or 90.2 percent of the schools in Nebraska offering this course. All of the large schools indicated that this course was part of their business education program. Of the medium schools 22 (84.6 percent) indicated that first year typing was included in their school program, while 214 (89.9 percent) of the small schools did so, too.

First year shorthand was the third most popular business course in Nebraska schools being offered by over two thirds (68.9 percent) of the schools. All of the medium and large schools offered first year shorthand, while 149 (62.6 percent) of the small schools offered it.

Fourth in popularity was clerical office practice with 194 or 67.8 percent of the schools in Nebraska offering this course.

The fifth most popular course in the Nebraska business education offerings was general business and it was offered by 156 or 54.6 percent of the schools. This course was found in a higher proportion of the

Table 4

Business Education Curriculum Offerings in Small, Medium, and Large Nebraska Secondary Schools

Course/Subject	Type of School							
	Small (N=238)		Medium (N=26)		Large (N=22)		Total (N=286)	
	No.	%	No.	%	No.	%	No.	%
Accounting/Bookkeeping (1st yr)	231	97.1	26	100.0	22	100.0	279	97.6
Typing 1-2 (1st yr)	214	89.9	22	84.6	22	100.0	258	90.2
Shorthand 1-2 (1st yr) Gregg	149	62.6	26	100.0	22	100.0	197	68.9
Clerical Office Practice	157	66.0	16	61.5	21	95.5	194	67.8
General Business	117	49.2	22	84.6	17	77.3	156	54.5
Typing 3-4 (2nd yr)	108	45.4	16	61.5	19	86.4	143	50.0
Business Law	102	42.9	13	50.0	21	95.5	136	47.6
Business Math	86	36.1	14	53.8	7	31.8	107	37.4
Business/Office Machines	73	30.7	15	57.7	9	40.9	97	33.9
Secretarial Office Practice	56	23.5	13	50.0	13	59.1	82	27.7
Consumer Economics	47	19.7	9	34.6	9	40.9	65	20.7
Accounting/Bookkeeping (2nd yr)	37	15.5	6	23.1	12	54.5	55	19.2
Personal Typing	34	14.3	10	38.5	9	40.9	53	18.5
Shorthand 3-4 (2nd yr) Gregg	23	9.6	11	42.3	16	72.7	50	17.4
Office Occupations (Co-op)	21	8.8	10	38.5	15	68.2	46	16.1
Business English	27	11.3	6	23.1	4	18.2	37	12.9
Economics	28	11.8	6	23.1	2	9.1	36	12.6
Marketing	1	0.4	5	19.2	16	72.7	22	7.7
Recordkeeping	12	5.0	2	7.7	8	36.4	22	7.7
Data Processing	8	3.4	3	11.5	4	18.2	15	5.2
Business Principles	5	2.1	0	0	6	27.3	11	3.8
Shorthand 1-2 Alphabetic	6	2.5	1	3.8	0	0	7	2.4
Shorthand 1-2 Machine (Touch)	5	2.1	0	0	0	0	5	1.7
Notehand	1	0.4	0	0	2	9.1	3	1.0

medium schools (84.6 percent) than of the large schools (77.3 percent) or the small schools (49.2 percent).

Exactly one half of the schools responding to the questionnaire in this study indicated that second year typing was included among the business education offerings. This course was found in 108 (45.4 percent) of the small schools, 16 (61.5 percent) of the medium schools, and 19 (86.4 percent) of the large schools.

Business law was offered by slightly less than half (47.6 percent) of the respondents. Of the small schools, 102 (42.9 percent) offered this course. One half of the medium schools and 21 (95.5 percent) of the large schools offered the course.

Business math was the next most popular course and was offered by 107 schools or 37.4 percent. The percentages by school size were small 36.1, medium 53.8 and large 31.8.

Slightly over a third (33.9 percent) of the schools in Nebraska offered business/office machines. The highest proportion offering business/office machines were the medium schools. Of the schools in this category, 15 or 57.7 percent offered the course. This was followed by 9 large schools or 40.9 percent and 73 or 30.7 percent small schools.

Secretarial office practice was offered by 82 schools or 27.7 percent. One half of the medium and 59.1 percent of the large schools offered this course; however, only 23.5 percent of the small schools did so.

Consumer economics was found in slightly over one fifth (20.7 percent) of the business education programs in Nebraska. Such a course was offered by 47 (19.7 percent) of the small schools, 9 (34.6 percent) of the medium schools and 9 (40.9 percent) of the large schools.

Second year accounting and bookkeeping was offered by 55 (19.2 percent) of the responding schools. This course was found in over one half (54.5 percent) of the large schools, 6 (23.1 percent) of the medium and 37 (15.5 percent) of the small schools.

Personal typing was offered by 10 medium schools (38.5 percent) and 9 large schools (40.9 percent). However, only 34 or 14.3 percent of the small schools include this course. The total number of schools offering personal typing was 53 or 18.5 percent.

Second year shorthand was provided by 50 (17.4 percent) of the responding schools. Almost three fourths (72.7 percent) of the large schools listed second year shorthand, while 42.3 percent of the medium schools and less than a tenth (9.6 percent) of the small schools offer the course.

Over two thirds of the large schools (68.2 percent) indicated office occupations was included in their business education program. This same course was found in 38.5 percent of the medium schools and in 21 or 8.8 percent of small schools. The total of 46 schools offering this course represented 16.1 percent of the respondents.

Business English was offered by 37 of the schools in Nebraska which represents 12.9 percent of all schools. Further analysis revealed that 27 (11.3 percent) of the small schools, 6 (23.1 percent) of the medium schools, and 4 (18.2 percent) of the large schools offered the course.

Economics was listed by a total of 36 schools (12.6 percent) as being included in the business education program. Of the small schools, 28 schools or 11.8 percent indicated such a course was offered and 6 (23.1 percent) of the medium schools did the same. However, economics was offered by only 2 (9.1 percent) of the large schools.

Perhaps the most notable difference by size of schools was found in the area of marketing. Only one small school (.4 percent) indicated that marketing was offered, five or 19.2 percent of the medium schools listed marketing as a busines course offering, and 16 (72.7 percent) large schools offered the course.

Recordkeeping was found in 22 or 7.7 percent of the responding schools. Such a course was offered by eight (36.4 percent) of the large schools, two (7.7 percent) of the medium schools and twelve (5 percent) of small schools.

Data processing was offered by 15 of the schools in Nebraska and this number represents 5.2 percent of the total. By school type, this represents eight (3.4 percent) small schools, three (11.5 percent) medium schools, and four (18.2 percent) of the large schools.

The remainder of the courses listed in the questionnaire were offered by fewer than 5 percent of the schools in Nebraska thus no further analyses were made of these. These courses included business principles, alphabetic shorthand, machine shorthand, notehand, and insurance.

Hypothesis Testing. Hypothesis 1 stated that:

> No significant differences in the present business education curriculum offerings as foreseen by business/ education teachers exist between schools of various sizes in Nebraska.

To test this hypothesis, the Chi square test for differences between proportions was conducted on the current business education course offerings for each of the three types of schools. For this initial analyses, Chi square values were provided by the computer summary of the data. The results of this analyses and the Chi square values are found in Table 5.

Table 5

Chi Square Values for Differences in Proportions of Current Business Education Course Offerings Between Schools of All Sizes

Course/Subject	% of Schools Offering			X^2 Between ALL Types (df=4)
	Small	Medium	Large	
Accounting/Bookkeeping (1st yr)	97.1	100.0	100.0	1.447
Typing 1-2 (1st yr)	89.9	84.6	100.0	3.590
Shorthand 1-2 (1st yr) Gregg	62.6	100.0	100.0	26.058**
Clerical Office Practice	66.0	61.5	95.5	8.540*
General Business	49.2	84.6	77.3	16.849**
Typing 3-4 (2nd yr)	45.4	61.5	86.4	15.054**
Business Law	42.9	50.0	95.5	22.407**
Business Math	36.1	53.8	31.8	3.458
Business/Office Machines	30.7	57.7	40.9	8.155*
Secretarial Office Practice	23.5	50.0	59.1	18.814**
Consumer Economics	19.7	34.6	40.9	7.436*
Accounting/Bookkeeping (2nd yr)	15.5	23.1	54.5	20.886**
Personal Typing	14.3	38.5	40.9	16.979**
Shorthand 3-4 (2nd yr) Gregg	9.6	42.3	72.7	69.994**
Office Occupations (Co-op)	11.3	23.1	18.2	3.446
Economics	11.8	23.1	9.1	2.990
Marketing	0.4	19.2	72.7	153.000**
Recordkeeping	5.0	7.7	36.4	27.824**
Data Processing	3.4	11.5	18.2	11.180**
Business Principles	2.1	0	27.3	35.645**
Shorthand 1-2 Alphabetic	2.5	3.8	0	1.061

*.05 level of significance **.01 level of significance

Significant differences between the proportions of current business education course offerings were found for shorthand 1-2, clerical office practice, general business, typing 3-4, business law, business/office machines, secretarial office practice, consumer economics, accounting/bookkeeping (2nd yr), personal typing, shorthand 3-4, marketing, recordkeeping, data processing, and business principles. Consequently, hypothesis 1 was rejected for each of these courses and accepted for the remainder.

For each of these courses where significant Chi square values were found, further analyses were conducted to determine whether significant differences existed between the small and medium schools, the medium and large schools, or the small and large schools. The results of these analyses are contained in Table 6.

Since there was no instance where a larger proportion of small schools offered any course than did medium or large schools, all of the significant differences had to lie between either the small and medium schools or the small and large schools. The Chi square values calculated revealed that a significantly smaller proportion of small schools offered shorthand 1-2, clerical office practice, general business, business/office machines, secretarial office practice, personal typing, shorthand 3-4, office occupations, marketing, and data processing than did medium schools.

No significant differences between small and medium schools were found for clerical office practice, business law, consumer economics, accounting/bookkeeping (2nd yr), recordkeeping and business principles.

Comparisons between the medium and large schools revealed that significant differences existed for clerical office practice, business law,

Table 6

Chi Square Values for Differences in Proportions of Current Business Education Course Offerings Between Small, Medium, and Large Schools

Course/Subject	X^2 for Between School Size Comparisons (df=1)		
	S vs M	M vs L	S vs L
Shorthand 1-2 (1st yr) Gregg	14.667**	b	a
Clerical Office Practice	b	a	6.633*
General Business	a	.422	6.733*
Typing 3-4 (2nd yr)	2.458	3.719	13.652**
Business Law	b	11.917**	a
Business/Office Machines	13.466**	1.343	.977
Secretarial Office Practice	9.507**	b	a
Consumer Economics	3.100	b	5.336*
Accounting/Bookkeeping (2nd yr)	.975	5.035*	a
Personal Typing	9.864**	b	a
Shorthand 3-4 (2nd yr) Gregg	22.260**	4.481*	a
Office Occupations (Co-op)	19.867**	4.218*	a
Marketing	37.341**	13.850**	a
Recordkeeping	b	5.939*	a
Data Processing	3.925*	0.422	a
Business Principles	b	a	31.493**
Notehand	c	----	----

*.05 level of significance **.01 level of significance

[a]Since differences between two smaller proportions was significant, this difference is also.

[b]Since inspection revealed proportions to be nearly equal, no further analysis was done.

[c]Since less than 3 percent of schools offer this course, no analysis was made.

S = Small M = Medium L = Large

accounting/bookkeeping (2nd yr), shorthand 3-4, office occupations, marketing and recordkeeping.

Significant differences existed between the small and large schools on every subject except business/office machines.

Predicted Curriculum Changes

As with the present curriculum offerings, predicted curricular changes were first summarized by each type of school and for all schools. Then tests of the hypothesis of no significant differences between types of schools were conducted.

Course Deletions and Additions. Respondents were asked to indicate what business courses presently offered might be dropped from the curriculum and also what courses not presently offered might be added within the next five years.

In general, few if any schools in Nebraska anticipated that any courses presently offered would be dropped from their curriculums as is indicated in Table 7.

Of the small schools that presently offer first year shorthand, 10 indicated that this course would be dropped. This represents 6.7 percent of all of the schools presently offering the course. The remainder of the courses that were listed as possible deletions were done so by three or fewer schools. In practically every instance where a course was to be dropped, this prediction was made by a small school.

On the other hand, far more schools anticipated adding courses to the curriculum. Table 8 contains a summary of this data. The most popular course cited as an addition to the curriculum was business law. Of the schools not currently offering that course, 38 indicated that they

Table 7

Business Education Courses which Teachers Predict will be Deleted from the Curriculum within 5 Years

Course/Subject	Type of School							
	Small		Medium		Large		Total	
	No.	%	No.	%	No.	%	No.	%
Accounting/Bookkeeping (1st yr)	0	0	0	0	0	0	0	0
Typing 1-2 (1st yr)	2	0.9[a]	0	0	0	0	2	0.8
Shorthand 1-2 (1st yr) Gregg	10	6.7	0	0	0	0	10	6.7
Clerical Office Practice	0	0	0	0	0	0	0	0
General Business	3	2.6	0	0	0	0	3	1.9
Typing 3-4 (2nd yr)	0	0	1	6.3	0	0	1	0.7
Business Law	2	0.8	1	7.7	0	0	3	2.2
Business Math	1	0.4	0	0	0	0	1	0.3
Business/Office Machines	1	1.4	1	6.7	0	0	2	2.1
Secretarial Office Practice	0	0	0	0	0	0	0	0
Consumer Economics	3	6.4	0	0	0	0	3	4.6
Accounting/Bookkeeping (2nd yr)	2	0.8	0	0	0	0	2	0.7
Personal Typing	0	0	1	10.0	0	0	1	1.9
Shorthand 3-4 (2nd yr) Gregg	3	13.0	0	0	0	0	3	6.0
Office Occupations (Co-op)	0	0	0	0	0	0	0	0
Business English	0	0	0	0	0	0	0	0
Economics	3	10.7	0	0	0	0	3	8.3
Marketing	0	0	0	0	0	0	0	0
Recordkeeping	1	8.3	0	0	0	0	1	4.5
Data Processing	1	12.5	0	0	0	0	1	6.7
Business Principles	1	20.0	0	0	0	0	1	9.1

[a]Base upon which percentage is determined will vary since it represents number of schools currently offering the course.

Table 8

Business Education Courses which Teachers Predict will be Added to the Curriculum within 5 Years

Course Subject	Type of School							
	Small		Medium		Large		Total	
	No.	%	No.	%	No.	%	No.	%
Accounting/Bookkeeping (1st yr)	3	42.8[a]	0	0	0	0	3	42.8
Typing 1-2 (1st yr)	3	13.0	0	0	0	0	3	11.1
Shorthand 1-2 (1st yr) Gregg	23	25.8	0	0	0	0	23	25.8
Clerical Office Practice	10	12.3	0	0	0	0	10	10.7
Typing 3-4 (2nd yr)	13	10.0	0	0	1	33.0	14	9.8
General Business	21	17.4	1	25.1	0	0	22	16.9
Business Law	36	26.5	2	15.4	0	0	38	25.3
Business Math	12	7.9	1	8.3	4	26.7	17	9.5
Business/Office Machines	8	4.8	1	9.1	2	15.4	11	5.8
Secretarial Office Practice	10	5.5	0	0	0	0	10	4.9
Consumer Economics	18	9.4	0	0	1	7.7	19	8.6
Accounting/Bookkeeping (2nd yr)	15	6.3	4	11.5	4	18.2	22	7.7
Personal Typing	7	3.4	0	0	0	0	7	3.0
Shorthand 3-4 (2nd yr) Gregg	8	3.7	1	6.7	2	33.3	11	4.7
Office Occupations (Co-op)	8	3.7	0	0	1	14.3	9	3.7
Business English	14	6.6	2	10.0	1	5.5	17	6.8
Economics	6	2.9	1	5.0	0	0	7	2.8
Marketing	2	0.8	1	4.8	0	0	3	1.1
Recordkeeping	5	2.2	1	4.2	2	14.3	8	3.0
Data Processing	9	3.9	3	13.0	3	16.7	15	5.5
Business Principles	2	0.8	0	0	0	0	2	0.7
Shorthand 1-2 Alphabetic	1	0.4	0	0	2	9.1	3	1.1

[a]Base upon which percentage is determined will vary since it represents the number of schools that do not currently offer the course.

would offer such a course. This represented over one fourth of the schools. Of the 38, 36 were small schools.

The second most likely course to be added to the curriculum was shorthand 1-2 with 23 schools indicating such a possibility. All of these were in the small school category and, again, represented over one fourth of these schools.

Third in popularity among the courses to be added to the curriculum was general business, which would be added by 22 or 16.9 percent of the schools not currently offering it. Small schools constituted 21 of the 22 schools, while the other was a medium school.

Accounting/bookkeeping (2nd yr) was also listed as a likely addition by 22 of the schools. However, since most schools did not offer accounting/bookkeeping (2nd yr), these 22 schools represented only 7.7 percent of the nonofferers.

Consumer economics would be added by 19 schools or 8.6 percent of those not currently offering it. Both business English and business math would be added by 17 schools.

Of the schools not currently offering data processing, 15 or 5.5 percent would add that course. Second year typing would be added by 14 schools and 11 would add second year shorthand.

Business machines would be added by eleven schools and secretarial practice and clerical office practice would each be added by ten schools.

The remainder of the courses that would be added represented less than 10 schools in each category and less than 5 percent of those not currently being offered. For this reason, no further analyses was made of such courses. Obviously, however, some of the most currently popular

courses like typing 1-2, shorthand 1-2, and accounting/bookeeping (1st yr) would be among those that fall in this latter category due to the fact that they were presently offered by practically all schools in Nebraska. None of the courses which were currently not popular were likely to be added in the near future.

Hypothesis Testing. Hypothesis 2 stated that:

> No significant difference in the anticipated business education curriculum offerings exist between schools of various sizes in Nebraska.

Since so few schools anticipated dropping courses from the curriculum, no further analyses was done in this area.

However, Chi square tests for differences in proportions of predicted course additions were conducted for all schools. The results are found in Table 9.

Significant differences in predicted course additions were found in business math, accounting/bookkeeping (2nd yr), shorthand 3-4, recordkeeping, data processing, and alphabetic shorthand. Further analyses by means of the Chi square test were conducted on these subjects to see where significance lie. The results of the comparisons of the small and medium schools, the medium and large schools, and the small and large schools are found in Table 10.

In the area of business math, significantly more large schools anticipated adding this course than did small or medium schools. Similar results were found for accounting/bookkeeping (2nd yr), shorthand 3-4, recordkeeping, data processing, and shorthand 1-2 (alphabetic). Thus, for these six courses, hypothesis 2 was rejected.

Table 9

Chi Square Values for Differences in Proportions of Predicted Course Additions between Schools of All Sizes

Course/Subject	% of Schools Adding			X^2 Between ALL Types (df=2)
	Small	Medium	Large	
Accounting/Bookkeeping (1st yr)	42.8	0	0	a
Typing 1-2 (1st yr)	13.0	0	0	a
Shorthand 1-2 (1st yr) Gregg	25.8	0	0	a
Clerical Office Practice	12.3	0	0	1.523
General Business	17.4	25.1	0	.029
Typing 3-4 (2nd yr)	10.0	0	33.3	1.695
Business Law	26.5	15.4	0	.492
Business Math	7.9	8.3	26.7	6.279*
Business/Office Machines	4.8	9.1	15.4	2.667
Secretarial Office Practice	5.5	0	0	.753
Consumer Economics	9.4	0	7.7	.040
Accounting/Bookkeeping (2nd yr)	6.3	11.5	18.2	12.466**
Personal Typing	3.4	0	0	.567
Shorthand 3-4 (2nd yr) Gregg	3.7	6.7	33.3	11.663**
Office Occupations (Co-op)	3.7	0	14.3	1.975
Business English	6.6	10.0	5.5	.316
Economics	2.9	5.0	0	.284
Marketing	0.8	4.8	0	2.577
Recordkeeping	2.2	4.2	14.3	6.656*
Data Processing	3.9	13.0	16.7	7.902*
Business Principles	0.8	0	0	.225
Shorthand 1-2 Alphabetic	0.4	0	9.1	12.911**

*.05 level of significance **.01 level of significance

[a]Due to the high proportion of present offering of this course, no analysis was made.

Table 10

Chi Square Values for Differences in Proportions Of Predicted Course Additions Between Small, Medium, and Large Schools

Course/Subject	X^2 for Between School Size Comparisons (df=1)		
	S vs M	M vs L	S vs L
Business Math	a	1.485	5.554*
Accounting/Bookkeeping (2nd yr)	1.381	2.329	12.308**
Shorthand 3-4 (2nd yr)	.324	2.489	11.848**
Recordkeeping	.354	1.245	6.456*
Data Processing	3.858	.106	5.897*
Shorthand 1-2 (Alphabetic)	a	b	12.911**

*.05 level of significance **.01 level of significance

[a]Since inspection revealed the proportions to be nearly equal, no further analysis was done.

[b]Since differences between two smaller proportions was significant, this difference is also.

S = Small M = Medium L = Large

Enrollments

Respondents were asked on the questionnaire to indicate both the present enrollment in the courses offered in their business education program and to predict whether these enrollments would remain stable, increase, or decrease in the next five years.

Present Enrollments. Average enrollments for presently offered courses were calculated for each subject for each type of school. These mean enrollments are displayed in Table 11.

As might be anticipated, the most popular courses tended to have the highest average enrollment; however, there was not a perfect relationship. For all schools the course with the highest average enrollment was marketing with over 47 students per school. This is slanted in part, however, by the large proportion of large schools that offered this course compared to the relatively small proportions of small and medium schools.

Next with highest enrollment was typing 1-2 with an average of slightly 42 students per school.

Third in average enrollment per school was recordkeeping with nearly 35 students per school enrolled. Again, the relatively large number of large schools that offered this course in comparison to the small schools accounted for this high average.

The remainder of the means held few surprises. The course with the smallest per school average was shorthand 3-4 with slightly over 7 students per school enrolled in this course. The next smallest enrollment was found in accounting/bookkeeping (2nd yr) with almost 10 students per school enrolled.

No small school had more than 30 students per school enrolled in any course. In the medium schools, only typing 1-2 and business math

Table 11

Mean Enrollments in Currently Offered Business Education Courses in Small, Medium, and Large Nebraska Secondary Schools

Course/Subject	Type of School			
	Small	Medium	Large	Total
Accounting/Bookkeeping (1st yr)	17.13	48.34	97.41	26.37
Typing 1-2 (1st yr)	29.58	78.73	133.91	42.67
Shorthand 1-2 (1st yr) Gregg	7.62	16.00	48.55	13.29
Clerical Office Practice	8.78	14.06	35.67	12.13
General Business	18.95	37.00	102.88	30.64
Typing 3-4 (2nd yr)	11.11	21.88	74.68	20.76
Business Law	12.04	32.92	58.76	21.25
Business Math	15.68	50.08	35.71	21.49
Business/Office Machines	12.64	20.13	47.44	17.03
Secretarial Office Practice	9.52	14.69	22.54	12.40
Consumer Economics	15.26	21.11	71.67	23.88
Accounting/Bookkeeping (2nd yr)	5.08	8.67	24.92	9.80
Personal Typing	28.53	30.99	35.44	30.17
Shorthand 3-4 (2nd yr) Gregg	2.23	7.27	14.25	7.19
Office Occupations (Co-op)	7.57	10.60	19.93	12.26
Business English	7.12	32.66	19.99	12.65
Economics	13.89	18.00	7.50	14.22
Marketing	9.00	36.80	53.13	47.41
Recordkeeping	8.50	44.00	72.12	34.86
Data Processing	7.26	17.66	27.50	14.74
Business Principles	9.96	0	32.43	22.22

exceeded an average of 50 students per school. For the large schools, typing 1-2 and general business each exceeded an average of 100 students per school. Lowest per school average for the large schools was seven and one half students per school for economics. This somewhat surprisingly low number may be explained in that only two large schools offered economics in the business education department.

Predicted Enrollments. Generally Nebraska business teachers were optimistic about the future enrollments in business education courses. For practically every course, 50 to 75 percent of the respondents predicted that the enrollments in the currently offered business education courses would remain stable. These results can be found in Table 12.

The exception to this general range was in accounting/bookkeeping (2nd yr) where slightly over 12 percent of the respondents predicted a stable enrollment in that area.

The large majority of teachers who did not predict stable enrollments predicted that the enrollments would increase. The number and percentages of respondents that predicted increases in enrollments can be found in Table 13.

The courses that had the highest percentage of teachers predicting increasing enrollments were clerical office practice, recordkeeping, data processing, shorthand 3-4, and office occupations. Over 30 percent of the respondents predicted increasing enrollments in these areas.

Decreasing enrollments were predicted by very few Nebraska business teachers as is shown in Table 14. Interestingly, the two subjects that had the highest mention for decreasing enrollments were typing 1-2 and shorthand 1-2. With the exception of these two areas,

Table 12

Number and Percent of Nebraska Secondary Schools Predicting Stable Enrollments in Currently Offered Business Education Courses

Course/Subject	Type of School						Total	
	Small		Medium		Large			
	No.	%	No.	%	No.	%	No.	%
Accounting/Bookkeeping (1st yr)	163	68.5[a]	15	57.7	17	77.3	195	68.2
Typing 1-2 (1st yr)	147	68.7	17	77.3	12	54.5	176	68.2
Shorthand 1-2 (1st yr) Gregg	88	59.1	16	61.5	16	72.7	120	60.9
Clerical Office Practice	90	57.3	8	50.0	15	71.4	113	58.2
General Business	84	71.8	14	63.6	9	52.9	107	68.6
Typing 3-4 (2nd yr)	68	63.0	8	50.0	11	57.9	87	60.8
Business Law	67	65.7	8	61.5	14	66.7	89	65.4
Business Math	61	70.9	12	85.7	6	85.7	79	73.8
Business/Office Machines	59	80.8	9	60.0	6	66.7	74	76.3
Secretarial Office Practice	34	60.7	6	46.2	10	76.9	50	61.0
Consumer Economics	32	68.1	7	77.8	8	88.9	47	72.3
Accounting/Bookkeeping (2nd yr)	24	10.1	4	15.4	8	36.4	36	12.6
Personal Typing	29	85.3	5	50.0	8	88.9	42	79.2
Shorthand 3-4 (2nd yr) Gregg	14	60.9	5	45.4	7	43.8	26	52.0
Office Occupations (Co-op)	13	61.9	5	50.0	7	46.7	25	54.3
Business English	20	74.1	6	100.0	4	100.0	30	81.1
Economics	17	60.7	2	33.3	1	50.0	20	55.6
Marketing	2	100.0	4	80.0	10	62.5	15	68.2
Recordkeeping	7	58.3	1	50.0	6	75.0	14	63.6
Data Processing	3	37.5	3	100.0	2	50.0	8	53.3
Business Principles	5	100.0	0	0	5	83.3	10	90.9

[a]Base upon which percentage is determined will vary since it represents number of schools currently offering the course.

Table 13

Number and Percent of Nebraska Secondary Schools Predicting Increasing Enrollments in Currently Offered Business Education Courses

Course/Subject	Type of School						Total	
	Small		Medium		Large			
	No.	%	No.	%	No.	%	No.	%
Accounting/Bookkeeping (1st yr)	46	19.3[a]	8	30.8	4	18.2	58	20.3
Typing 1-2 (1st yr)	24	11.2	1	4.5	6	27.3	31	12.0
Shorthand 1-2 (1st yr) Gregg	36	24.2	4	15.4	3	13.6	43	21.8
Clerical Office Practice	55	35.0	4	25.0	4	19.0	63	32.5
General Business	22	18.8	5	22.7	5	29.4	32	20.5
Typing 3-4 (2nd yr)	28	25.9	3	18.8	5	26.3	36	25.2
Business Law	20	19.6	3	23.1	6	28.6	29	21.3
Business Math	12	14.0	0	0	0	0	12	11.2
Business/Office Machines	12	16.4	3	20.0	2	22.2	17	17.5
Secretarial Office Practice	16	28.6	6	46.2	2	15.4	24	29.3
Consumer Economics	4	8.5	1	11.1	0	0	5	7.7
Accounting/Bookkeeping (2nd yr)	8	3.4	2	7.7	4	18.2	14	4.9
Personal Typing	1	2.9	2	20.0	1	11.1	4	7.5
Shorthand 3-4 (2nd yr) Gregg	8	34.8	4	36.4	4	25.0	16	32.0
Office Occupations (Co-op)	3	14.3	3	30.0	8	53.3	14	30.4
Business English	7	25.9	0	0	0	0	7	18.9
Economics	5	17.6	2	33.3	0	0	7	19.4
Marketing	0	0	0	0	3	18.8	3	13.6
Recordkeeping	5	41.7	1	50.0	2	25.0	8	36.4
Data Processing	4	50.0	0	0	2	50.0	6	40.0

[a]Base upon which percentage is determined will vary since it represents number of schools currently offering the course.

Table 14

Number and Percent of Nebraska Secondary Schools Predicting Decreasing Enrollments in Currently Offered Business Education Courses

Course/Subject	Type of School							
	Small		Medium		Large		Total	
	No.	%	No.	%	No.	%	No.	%
Accounting/Bookkeeping (1st yr)	7	2.9[a]	1	3.8	0	0	8	2.8
Typing 1-2 (1st yr)	12	5.6	1	4.5	2	9.1	15	5.8
Shorthand 1-2 (1st yr) Gregg	11	7.4	2	7.7	1	4.5	14	7.1
Clerical Office Practice	0	0	1	6.3	0	0	1	0.6
General Business	2	1.7	1	4.5	1	5.9	4	2.6
Typing 3-4 (2nd yr)	2	1.9	1	6.3	1	5.3	4	2.8
Business Law	2	2.0	0	0	0	0	2	1.5
Business Math	3	3.5	1	7.1	0	0	4	3.7
Business/Office Machines	0	0	0	0	0	0	0	0
Secretarial Office Practice	0	0	0	0	0	0	0	0
Consumer Economics	2	4.3	0	0	0	0	2	3.1
Accounting/Bookkeeping (2nd yr)	4	1.7	0	0	0	0	4	1.4
Personal Typing	1	2.9	0	0	0	0	1	1.9
Shorthand 3-4 (2nd yr) Gregg	2	8.7	1	9.0	1	14.3	4	8.0
Office Occupations (Co-op)	0	0	1	10.0	0	0	1	2.2
Business English	1	3.7	0	0	0	0	1	2.7
Economics	3	10.7	0	0	0	0	3	8.3
Marketing	0	0	0	0	0	0	0	0
Business Principles	0	0	0	0	1	16.7	1	9.1

[a]Base upon which percentage is determined will vary since it represents number of schools currently offering the course.

fewer than ten respondents indicated that any one area would encounter a decrease in enrollment.

Hypothesis Testing. Hypothesis 3 stated:

> No significant differences in the anticipated enrollments in business education courses exist between schools of various sizes in Nebraska.

To test this hypothesis, Chi square tests were conducted for differences in predicted enrollments between each size school. The initial analyses combined the three types of schools with the three possible enrollment predictions. The Chi square values thus determined are found in Table 15. No significant Chi square values were found for any subject in this initial calculation; therefore, no further analyses were made and Hypothesis 3 was accepted for all curriculum areas.

PROGRAM INNOVATIONS

Respondents were asked in Section III of the questionnaire to indicate what program innovations were currently adopted in the business education program in their school and to predict which might be adopted within a five-year period. The program innovations were subdivided into the categories of material/equipment innovations and instructional/organizational innovations.

Present Adoptions

The respondents were provided with 22 different material/equipment innovations and asked to indicate which of these had been adopted in their business education program. The results of these findings are contained in Table 16.

Table 15

Chi Square Values for Differences in Proportions of Schools Anticipating Enrollment Trends in Currently Offered Business Education Courses

Course/Subject	X^2 df=4
Accounting/Bookkeeping (1st yr)	3.534
Typing 1-2 (1st yr)	2.751
Shorthand 1-2 (1st yr) Gregg	1.508
Clerical Office Practice	2.740
General Business	2.105
Typing 3-4 (2nd yr)	1.062
Business Law	.103
Business Math	1.335
Business/Office Machines	3.490
Secretarial Office Practice	2.591
Consumer Economics	1.785
Accounting/Bookkeeping (2nd yr)	.878
Personal Typing	6.465
Shorthand 3-4 (2nd yr) Gregg	1.350
Office Occupations (Co-op)	.916
Business English	3.197
Economics	1.533
Marketing	1.644
Recordkeeping	.753
Data Processing	3.449
Business Principles	.203

Table 16

Business Education Material/Equipment Innovations Currently Adopted in Small, Medium, and Large Nebraska Secondary Schools

Material/Equipment Innovation	Type of School							
	Small (N=238)		Medium (N=26)		Large (N=22)		Total (N=286)	
	No.	%	No.	5	No.	%	No.	%
Electric Typewriters	225	94.9	26	100.0	22	100.0	273	95.8
Copying Machine	202	86.0	24	92.3	20	90.9	246	86.9
Dictation/Transcription Machines	168	70.9	25	96.2	21	95.5	214	75.1
Office Practice Simulation Packets	171	72.5	24	92.3	14	63.6	209	73.6
Electronic Printing Calculators	157	66.2	25	96.2	21	95.5	203	71.2
Mini Calculators	122	51.5	18	69.2	12	54.5	152	53.3
Stencil-Making Machine	86	36.8	15	57.7	10	45.5	111	39.4
Automatic Typewriters	79	33.3	15	57.7	14	63.6	108	37.9
Multi-Channel Dictation Facility	46	19.4	11	42.3	18	81.8	75	26.3
Proportional Space Typewriter(s)	29	12.2	6	23.1	13	59.1	48	16.8
Correcting Typewriter(s)	28	11.8	6	23.1	5	22.7	39	13.7
Card-Punch Simulators	19	8.0	6	23.1	11	50.0	36	12.6
Electronic Cathode Calculators	26	11.0	6	23.1	4	18.2	36	12.6
Keypunch Machine	15	6.3	4	15.4	12	54.5	31	10.9
Collating Machine	9	3.8	4	15.4	7	31.8	20	7.1
Card Sorter	1	0.4	2	7.7	9	40.9	12	4.2
Pacing Devices	6	2.5	3	11.5	3	13.6	12	4.2
Computer Terminals	6	2.5	1	3.8	4	18.2	11	3.8
Stenograph, Stenoprint, Stenotype	5	2.1	0	0	5	22.7	10	3.5
Folding Machine	6	2.5	2	7.7	1	4.5	9	3.2
Diatype Analyzer	1	0.4	0	0	2	9.1	3	1.1
Gregg/KEE Keyboard Equipment	2	0.8	0	0	0	0	2	0.7

Summary Results. The most popular material/equipment innovation currently found in the Nebraska schools was the electric typewriter. Over 95 percent (273) of the schools in Nebraska have this piece of equipment. A close second in popularity was the copying machine, which was found in 246 or 86.9 percent of the Nebraska secondary schools.

The next two most popular innovations currently found in business education programs in Nebraska were dictation/transcription machines (75.1 percent) and electronic calculators (71.2 percent). Mini calculators have been adopted by slightly over half of the Nebraska schools (53.3 percent).

Two innovations were found in more than one third of the Nebraska schools. Those included the stencil-making machine (39.4 percent) and automatic typewriters (37.9 percent). Multi-channel dictation facilities were found in 26.3 percent of the Nebraska schools. Proportional spacing typewriters were found in 48 schools, which represented 16.8 percent of the respondents and correcting typewriters were found in 39 schools or 13.7 percent of the schools.

Card punch simulators and electronic cathode ray tube calculators were each found in 12.6 percent of the schools while the keypunch machines were found in 31 or slightly over 10 percent of the responding schools. The remaining innovations had been adopted by less than 10 percent of the schools in Nebraska.

Instructional/organizational innovation adoption was at a much lower rate in Nebraska as is shown in Table 17. The most popular instructional/organizational innovation adopted by Nebraska business education programs was learning activity packets, which were found in 106 or 37.9 percent of the schools. This was followed by behavioral or

Table 17

Business Education Instructional/Organizational Innovation Adoption in Small, Medium and Large Nebraska Secondary Schools

Instructional/Organizational Innovation	Type of School							
	Small (N=238)		Medium (N=26)		Large (N=22)		Total (N=286)	
	No.	%	No.	%	No.	%	No.	%
Learning Activity Packets (LAPS)	80	34.5	16	61.5	10	45.5	106	37.9
Behavioral or Performance Objectives (explicitly stated)	59	25.5	13	50.0	11	50.0	83	29.7
Office Simulation Laboratory	53	22.8	16	61.5	9	40.9	78	27.9
Mini Courses in Business Education	58	25.1	4	15.4	7	31.8	69	24.7
Cooperative Office Education Program	31	13.4	14	53.8	17	77.3	62	22.2
Block Program for Shorthand Instruction	12	5.2	6	23.1	9	40.9	27	9.6
Business Education Instructional Materials Center (IMC)	14	6.0	2	7.7	9	40.9	25	8.9
Team Teaching	14	6.0	2	7.7	3	13.6	19	6.8
Flexible (Modular)Scheduling	11	4.7	2	7.7	3	13.6	16	5.7
Individual Progress Method (IPM) of Teaching Shorthand	11	4.7	4	15.4	0	0.0	15	5.4
Micromolar Shorthand Instruction	0	0.0	0	0.0	0	0.0	0	0.0

performance objectives which were found in 83 schools or 29.7 percent. Office simulation laboratories had been adopted by 27.9 percent (78) of the schools, while mini courses were found in 69 or nearly one fourth of the responding schools. The cooperative office education program was used in 62 schools which represented 22.2 percent.

The remainder of the instructional/organizational innovations had been adopted by less than 10 percent of the schools in Nebraska. Apparently, the lower rate of adoption for the instructional/organizational innovations for material/equipment innovations may be explained in part by the fact that it is easier to buy things than it is to reorganize instructional patterns and procedures.

Hypothesis Testing. Hypothesis 4 stated:

> No significant differences in the current adoption patterns of business education program innovations exist between schools of various sizes in Nebraska.

To test this hypothesis, Chi square values were determined for differences between proportions of current adoptions of business education innovations for all schools. The initial analysis was done for the three types of schools and for present and anticipated adoptions. These Chi square values for the material/equipment innovations adoptions are found in Table 18.

Significant differences were found between school size and the adoption rate for dictation/transcription machines, electronic printing calculators, automatic typewriters, multi-channel dictation facilities, proportional spacing tyepwriters, card punch simulators, keypunch machines, collating machine, card sorters, pacing devices, computer terminals, stenograph, stenoprint, or stenotype machines, and diatype analyzer.

Table 18

Chi Square Values for Differences in Proportions of Schools Having Adopted Business Education Material/Equipment Innovations

Innovation	% of Adoption			X^2 Between ALL Types (df=6)
	Small	Medium	Large	
Electric Typewriters	94.9	100.0	100.0	2.537
Copying Machine	86.0	92.3	90.9	9.750
Dictation/Transcription Machines	70.9	96.2	95.5	13.888*
Office Practice Simulation Packets	72.5	92.3	63.6	7.110
Electronic Printing Calculators	66.2	96.2	95.5	17.441**
Mini Calculators	51.5	69.2	54.5	10.143
Stencil-Making Machine	36.8	57.7	45.5	8.052
Automatic Typewriters	33.3	57.7	63.6	13.597*
Multi-Channel Dictation Facility	19.4	42.3	81.8	55.814**
Proportional Space Typewriter(s)	12.2	23.1	59.1	33.000**
Correcting Typewriters(s)	11.8	23.1	22.7	7.791
Card-Punch Simulators	8.0	23.1	50.0	38.500**
Electronic Cathode Calculators	11.0	23.1	18.2	10.237
Keypunch Machine	6.3	15.4	54.5	53.332**
Collating Machine	3.8	15.4	31.8	32.935**
Card Sorter	0.4	7.7	40.9	85.779**
Pacing Devices	2.5	11.5	13.6	16.380**
Computer Terminals	2.5	3.8	18.2	17.250**
Stenograph, Stenoprint, Stenotype	2.1	0	22.7	27.124**
Folding Machine	2.5	7.7	4.5	8.881
Diatype Analyzer	0.4	0	9.1	15.600**
Gregg/KEE Keyboard Equipment	0.8	0	0	2.466

*.05 level of significance **.01 level of significance

Thus, Hypothesis 4 was rejected for each of these innovations. For each of these innovations, further Chi square analyses were conducted to determine whether significant differences existed between the small and medium, the medium and large, or the small and large schools. The results of these tests are found on Table 19.

In each case, significantly fewer small schools were found to have adopted the material/equipment innovations than had medium or large schools. In every instance the difference between the small school adoption and large school adoption was significant.

Significant differences between medium and large schools were found for multi-channel dictation facilities, proportional spacing typewriters, keypunch machines, card sorters, stenograph machines, and diatype analyzer. Nonsignificant differences were found between small and medium schools only in the area of proportional spacing typewriters, keypunch machines, card sorters, computer terminals, stenotype machines, and the diatype analyzer.

Chi square values for differences between the type of school and the adoption rate of instructional/organizational innovations were also determined. Those results are found in Table 20.

Significant differences between school types were found for the adoption of learning activity packets, behavioral objectives, office simulation laboratory, cooperative office education program, block program for shorthand instruction and the business education instructional materials center. Thus, Hypothesis 4 was also rejected for these innovations. Further analyses of these areas were then conducted. The results of the comparisons between the three combinations of school size are displayed in Table 21.

Table 19

Chi Square Values for Differences in Proportions of Material/Equipment Innovation Adoption Rates Between Small, Medium and Large Schools

Innovation	X^2 for Between School Size Comparisons (df=1)		
	S vs M	M vs L	S vs L
Dictation/Transcription Machines	a	b	6.273*
Electronic Printing Calculators	a	b	8.110**
Automatic Typewriters	6.136*	0.176	a
Multi-Channel Dictation Facility	7.312**	7.779**	a
Proportional Space Typewriters	2.418	6.463*	a
Card-Punch Simulators	6.229*	3.776	a
Keypunch Machine	b	8.223*	a
Collating Machine	6.740**	1.822	a
Card Sorter	b	7.443**	a
Pacing Devices	5.788*	b	a
Computer Terminals	b	2.624	13.356**
Stenograph, Stenoprint, Stenotype	b	a	23.168**
Diatype Analyzer	b	a	13.275**

*.05 level of significance **.01 level of significance

[a]Since difference between two smaller proportions was significant, this difference is also.

[b]Since inspection revealed proportions to be nearly equal, no further analysis was done.

S = Small M = Medium L = Large

Table 20

Chi Square Values for Differences in Proportions of Instructional/Organizational Innovation Adoption Rates between Schools of all Size

Innovation	% of Adoption			X^2 Between ALL Types (df=6) [a]
	Small	Medium	Large	
Learning Activity Packets (LAPS)	34.5	61.5	45.5	13.579*
Behavioral Or Performance Objectives (explicitly stated)	25.5	50.0	50.0	16.882**
Office Simulation Laboratory	22.8	61.5	40.9	20.340**
Mini Courses in Business Education	25.1	15.4	31.8	9.137
Cooperative Office Education Program	13.4	53.8	77.3	65.716**
Block Program for Shorthand Instruction	5.2	23.1	40.9	38.250**
Business Education Instructional Materials Center (IMC)	6.0	7.7	40.9	31.810**
Team Teaching	6.0	7.7	13.6	8.374
Flexible (Modular) Scheduling	4.7	7.7	13.6	5.438
Individual Progress Method (IPM) of Teaching Shorthand	4.8	15.4	0	10.966
Micromolar Shorthand Instruction	0	0	0	----

[a]The original Chi Square analysis was done on 3 types of schools and on present adoption plus 3 categories of anticipated adoption. The result was a 3 x 4 contingency table and 6 degress of freedom.

*.05 significance **.01 significance

Table 21

Chi Square Values for Differences in Proportions of Instructional/Organizational Innovation Adoption Rates Between Small, Medium and Large Schools

Innovation	X^2 for Between School Size Comparisons (df=1)		
	S vs M	M vs L	S vs L
Learning Activity Packets (LAPS)	11.898**	1.242	1.248
Behavioral of Performance Objectives (explicitly stated)	a	b	a
Office Simulation Laboratory	c	2.032	3.853*
Cooperative Office Education Program	27.622**	2.859	c
Block Program for Shorthand Instruction	11.999**	1.764	c
Business Education Instructional Materials Center (IMC)	b	7.443**	c

*.05 level of significance

**.01 level of significance

a--Since proportions for medium and large schools are equal, significant difference lies between these two types and the small schools.

b--Since inspection revealed proportions to be nearly equal, no further analysis was done.

c--Since differences between two smaller proportions was significant this difference is also.

S--Small school M--Medium school L--Large school

Again, the proportion of large schools adopting these innovations was significantly larger than the small schools in every instance. The differences between the medium and large schools was significant only in the area of business education instructional materials center. Significant differences in the proportions of adoptions were found between small and medium schools in each area except the business education instructional materials center.

Anticipated Adoptions

Respondents were asked to preidict which of the innovations they planned to add within two years or hoped to add within five years. These were combined into a single category of anticipated adoptions. The results of the responses are indicated in Table 22 for the material/equipment innovations and in Table 23 for instructional/organizational innovations.

Summary Results. The most popular anticipated innovations among the material/equipment items were the dictation/transcription machines and the office practice simulation packets. Over 58 percent of the respondents that did not currently have these innovations indicated that they anticipated adopting these within five years. In each case most of the respondents came from the small school category.

The next most popular anticipated innovations was the electronic printing calculator. Over one half (51.8 percent) of the schools indicated that they hoped to adopt this innovation. All of these respondents were in the small school category.

Electric typewriters and mini calculators followed in popularity. The former was listed by 46 of the respondents, while the latter by 41

Table 22

Number and Percent of Nebraska Secondary Schools that Anticipate Adopting Material/Equipment Business Education Innovations within Five Years

Material/Equipment Innovation	Type of School						Total	
	Small		Medium		Large			
	No.	%	No.	%	No.	%	No.	%
Electric Typewriters	6	46.1[a]	0	0	0	0	6	46.1
Copying Machine	4	11.8	2	100.0	1	50.0	7	18.4
Dictation/Transcription Machines	41	58.6	0	0	1	100.0	42	58.3
Office Practice Simulation Packet	39	58.2	2	100.0	4	50.0	45	58.5
Electronic Printing Calculators	43	53.1	0	0	0	0	43	51.8
Mini Calculators	53	45.7	1	12.5	1	10.0	55	41.0
Stencil-Making Machine	21	13.8	3	27.3	0	0	24	13.8
Automatic Typewriters	34	21.4	2	18.2	3	37.5	39	21.9
Multi-Channel Dictation Facility	35	18.2	8	53.4	3	75.0	46	21.8
Proportional Space Typewriters	49	23.4	5	25.0	2	22.2	56	23.5
Correcting Typewriter(s)	69	32.5	10	50.0	5	29.4	84	34.0
Card-Punch Simulators	18	8.2	1	5.0	2	18.2	21	6.6
Electronic Cathode Calculators	28	13.2	2	10.0	3	16.7	33	13.2
Keypunch Machine	30	13.5	2	9.1	3	30.0	35	13.7
Collating Machine	14	6.1	4	18.2	1	6.7	19	7.1
Card Sorter	13	5.5	2	8.3	1	7.7	16	5.9
Pacing Devices	22	9.5	2	8.6	0	0	24	8.7
Computer Terminals	9	3.7	2	7.6	2	9.0	13	4.5
Stenograph, Stenoprint, Stenotype	21	9.0	2	7.7	2	11.8	25	9.1
Folding Machine	13	5.6	4	16.7	2	9.5	19	6.9
Diatype Analyzer	4	1.7	0	0	0	0	4	1.4
Gregg/KEE Keyboard Equipment	15	6.4	0	0	1	4.5	16	5.6

[a] Base upon which percentage is determined will vary since it represents the number of schools that have not currently adopted the innovation.

Table 23

Number and Percent of Nebraska Secondary Schools that Anticipate Adoping Instructional/Organizational Business Education Innovations within 5 Years

Instructional/Organizational Innovation	Type of School						Total	
	Small		Medium		Large			
	No.	%	No.	%	No.	%	No.	%
Learning Activity Packets (LAP)	52	32.9[a]	3	30.0	0	0	55	30.5
Behavioral or Performance Objectives (explicityly stated)	49	27.3	7	53.8	6	54.6	62.	30.5
Office Simulation Laboratory	69	37.3	3	30.0	5	45.3	77	37.0
Mini Courses in Business Education	78	43.3	15	67.2	4	26.6	97	44.7
Cooperative Office Education Program	70	33.8	5	41.6	2	40.0	77	34.4
Block Program for Shorthand Instruction	42	18.6	5	36.7	0	0	47	18.2
Business Education Instructional Materials Center (IMC)	42	18.8	6	25.0	2	15.4	50	19.1
Team Teaching	30	13.4	5	20.8	1	5.3	36	13.5
Flexible (Modular) Scheduling	19	8.3	1	4.2	1	5.3	21	7.8
Individual Progress Method (IPM) of Teaching Shorthand	33	14.5	4	18.2	1	4.5	38	14.1
Micromolar Shorthand Instruction	9	3.9	1	4.0	2	10.0	12	4.4

[a]Base upon which percentage is determined will vary since it represents the number of schools that have not currently adopted the innovation.

percent. The figure on electric typewriters is misleading, however, since almost all of the schools currently have this innovation, thus, only a few respondents represented a large proportion of those who anticipated adopting this device.

In general, the popularity of the anticipated innovations paralleled that of the present adoption. Those that were not popular innovations at the present were also not anticipated being adopted in the near future.

A similar pattern was seen for the instructional/organizational innovations. A summary of the anticipated adoption of these innovations can be found in Table 23. The most popular anticipated innovation in this category was the mini course. Over 44 percent of the schools that did not currently have this innovation indicated that they hoped to adopt it within a five-year period. This was followed in popularity by the office simulation laboratory with 37 percent and the cooperative office education program by 34.4 percent.

The two most popular currently adopted innovations, LAPS and behavioral objectives, were anticipated being adopted by 30 percent of the schools. The two least popular innovations were micromolar shorthand instruction which was anticipated by only 4.4 percent of the schools and flexible scheduling that was anticipated by only 7.8 percent of the schools.

Hypothesis Testing. The fifth hypothesis of the study stated:

> No significant differences in anticipated adoption patterns of business education program innovations exist between schools of various size in Nebraska.

To test this hypothesis, Chi square values were determined by the comparing the proportion of anticipated adoption of each material/equipment innovation by type of school. The results of these test are found in Table 24.

Table 24

Chi Square Values for Differences in Proportions of Anticipated Adoptions of Business Education Material/Equipment Innovations

Innovation	% of Anticipated Adoption			X^2
	Small	Medium	Large	(df=2)
Electric Typewriters	46.1	0	0	a
Copying Machine	11.8	100.0	50.0	a
Dictation/Transcription Machines	58.6	0	100.0	2.116
Office Practice Simulation Packet	58.2	100.0	50.0	a
Electronic Printing Calculators	53.1	0	0	2.203
Mini Calculators	45.7	12.5	10.0	7.711*
Stencil-Making Machine	13.8	27.3	0	3.617
Automatic Typewriters	21.4	18.2	37.5	1.251
Multi-Channel Dictation Facility	18.2	53.4	75.0	15.956**
Proportional Space Typewriters	23.4	25.0	22.2	.030
Correcting Typewriter(s)	32.5	50.0	29.4	a
Card-Punch Simulators	8.2	5.0	18.2	1.678
Electronic Cathode Calculators	13.2	10.0	16.7	.367
Keypunch Machine	13.5	9.1	30.0	.111
Collating Machine	6.1	18.2	6.7	4.413
Card Sorter	5.5	8.3	7.7	.400
Pacing Devices	9.5	8.6	0	1.976
Computer Terminals	3.7	7.6	9.0	1.957
Stenograph, Stenoprint, Stenotype	9.0	7.7	11.8	.004
Folding Machine	5.6	16.7	9.5	4.418
Diatype Analyzer	1.7	0	0	a
Gregg/KEE Keyboard Equipment	6.4	0	4.5	a

*.05 level of significance **.01 level of significance

[a]Original Chi square analysis was done on 3 types of schools and on both present and anticipated adoption. Where non-significant Chi-square values were found, no further analysis was done.

Significant differences between the proportion of anticipated innovation adoption by type of school were found in only two material/equipment areas. The first of these was the mini calculator where a significantly higher proportion of small schools anticipated adopting this innovation than did either medium or large schools.

The other was in the multi-channel dictation facility where a significantly larger proportion of large schools anticipated adopting this innovation than did medium schools, and, in turn, a significantly larger proportion of medium schools anticipated adopting this facility than did small schools.

In the case of instructional/organizational innovations, Chi square tests for significant differences in proportions were also made. These results are found in Table 25. Again, only two areas were found to have significant differences. A significantly larger proportion of medium and large schools anticipated adopting behavioral objectives than did small schools and a significantly larger proportion of medium schools anticipated adopting mini courses than did the large schools. No significant differences were found between the small and medium schools or the small and large schools for this innovation.

ADDITIONAL COMMENTS

The last portion of the questionnaire provided the respondents with space in which they could write additional comments. Of the 286 who returned useable questionnaires, 70 or 24.4 percent chose to do so. Most of these comments were made by teachers in small schools.

The majority of the comments provided additional information about aspects the business education program found in the particular

Table 25

Chi Square Values for Differences in Proportions of Anticipated Adoptions of Business Education Instructional/Organizational Innovations

Innovation	% of Anticipated Adoption			X^2 (df=2)
	Small	Medium	Large	
Learning Activity Packets (LAPS)	32.9	30.0	0	5.695
Behavioral or Performance Objectives (explicitly stated)	27.3	53.8	54.6	7.162*
Office Simulation Laboratory	37.3	30.0	45.3	.229
Mini Courses in Business Education	43.3	67.2	26.6	7.017*
Cooperative Office Education Program	33.8	41.6	40.0	.382
Block Program for Shorthand Instruction	18.6	36.7	0	2.552
Business Education Instructional Materials Center (IMC)	18.8	25.0	15.4	.672
Team Teaching	13.4	20.8	5.3	2.214
Flexible (Modular) Scheduling	8.3	4.2	5.3	.715
Individual Progress Method (IPM) of Teaching Shorthand	14.5	18.2	4.5	2.005
Micromolar Shorthand Instruction	3.9	4.0	10.0	a

*.05 level of significance **.01 level of significance

[a]Original Chi square analysis was done on 3 types of schools and on both present and anticipated adoption. Where non-significant Chi square values were found, no further analysis was done.

school. Several mentioned the fact that the size of the school or the attitude of the administration or community prevented them from providing a broader program or utilizing new, innovative materials or procedures.

A few of those who made comments indicated that they were receiving additional help in the form of rental equipment or in-service assistance from Educational Service Units, the State Department of Education, or the University of Nebraska.

SUMMARY

The business education offerings in the schools of Nebraska tend to fit the model of a traditional business education program with the most frequently offered courses being accounting/bookkeeping, typing I, shorthand I, and clerical office practices. Relatively few schools offer courses like data processing, consumer education, or recordkeeping. There is a significant relationship between school size and the extent of the curriculum offerings with a significantly smaller proportion of small schools offering most of the business education courses than did medium or large schools.

Few respondents foresaw courses being dropped from their business education programs in the next five years. A substantial number saw new courses being added. Most of those courses that were predicted additions were those that were presently popular. Again significant differences in the proportions of schools predicting course additions were found in the large schools.

Most of the respondents also saw enrollments in business education courses either remaining stable or increasing in the next five years. No significant differences between school size were found relative to these predictions.

The adoption of innovations in the business education programs in Nebraska secondary schools has been limited. Where innovations had been adopted, they tended to be of a material/equipment type rather than those of an instructional/organizational nature. Of the former, electric typewriters and copying machines were the most frequently mentioned, while learning activity packets dominated the latter. Again, significant differences between schools size were found when the adoption rate of these innovations were compared.

Business teachers in Nebraska were optimistic about adopting many of these innovations in the next five years. One of the most popular of the anticipated innovations was the electronic calculator. Very little difference was found between the size of school and planned adoption of program innovations.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

In this chapter the study purposes, procedures and findings are summarized; conclusions are drawn from the results of the study; and recommendations based on these conclusions are made.

SUMMARY

The many social, economic, and technical changes taking place in American society have important implications for the business education program. How rapidly and to what extent are business education programs being modified because of these changes is one critical question. Do smaller schools respond as rapidly and well to these changes was another. This study was conducted to provide partial answers to such questions by determining the current status and anticipated trends in the business education curriculum patterns and instructional innovations in the secondary schools of Nebraska. The problem was stated in terms of several hypotheses.

Hypotheses

The hypotheses which formed the basis for the study are stated below.

Hypothesis 1. No significant differences in the present business education curriculum offerings exist between schools of various sizes in Nebraska.

Hypothesis 2. No significant differences in the anticipated business education curriculum offerings as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Hypothesis 3. No significant differences in the anticipated enrollments in business education courses as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Hypothesis 4. No significant differences in the current adoption patterns of business education program innovations as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Hypothesis 5. No significant differences in anticipated adoption patterns of business education program innovations as foreseen by business education teachers exist between schools of various sizes in Nebraska.

Procedures

To provide data that would help answer the questions to which the study was addressed and to test the hypotheses, an author-designed questionnaire was developed. This questionnaire was mailed in late March, 1976, to selected teachers in each of the 330 public secondary schools in the state of Nebraska. These schools were categorized into three sizes labeled small, medium, and large based upon the number of business teachers currently teaching business education courses in the school as identified in the 1975-76 Nebraska Educational Directory.

A subsequent follow-up postcard and later a second questionnaire were mailed to those schools who did not respond to the initial questionnaire. A total of 295 or 89 percent of the schools in Nebraska responded to the questionnaire. Of these 289 or 86 percent provided useable data.

The small and large schools each had a return rate of 88 percent, while the medium schools had a return rate of 74 percent.

The Findings

The data contained on the 286 questionnaires was summarized by type of school with frequencies and percentages provided for each course currently offered, courses that were either predicted to be dropped or added to the curriculum, predicted enrollments, current innovation adoption, and predicted innovation adoption.

Chi square tests of significance were then used to determine if the proportion of schools of one size differed significantly from the proportions found in each of the other school types relative to the present status and anticipated trends.

In the area of current curriculum offerings, first year accounting/bookkeeping, first year shorthand, first year typewriting, clerical office practice, and general business were found to be the most popular courses offered by the Nebraska schools.

When tests of significance were run on the current business education course offerings by size of school, significant differences were found to exist between the proportions of current business education offerings for first year shorthand, clerical office practice, general business, second year typing, business/office machines, secretarial office practice, consumer economics, second year accounting/bookkeeping, personal typing, second year shorthand, marketing, recordkeeping, data processing, and business principles. Where significant differences were found, these favored the larger schools over the smaller ones. Thus, Hypothesis 1 was rejected for each of these courses.

Few Nebraska business teachers anticipated that courses would be deleted from the curriculum within the next five years. However, they were optimistic that courses will be added within the next five years.

Generally, the courses that they anticipated would be added were those that were relatively popular at present. Among those most frequently named of the likely course additions were business law, general business, and clerical office practice. Tests of significance were made for differences between school size and predicted course additions. Significant Chi square values were found in the area of business math, second year accounting/bookkeeping, second year shorthand, recordkeeping, data processing, and alphabetic shorthand. Thus, Hypothesis 2 was rejected for those courses. Again, significantly more large schools and medium schools anticipated adding courses to the curriculum than did small schools.

Nebraska business teachers were equally optimistic about future enrollments in business education courses. Most predicted that course enrollments would remain stable or increase during the next five years. No significant differences were found by the school size relative to these predicted enrollment trends. Consequently, Hypothesis 3 was accepted for all course offerings.

In the area of program innovations, the material/equipment innovations tended to be more frequently adopted than did the instructional/organizational innovations. The most popular material/equipment innovations were the electric typewriters, the copying machine, dictation/transcription machines, and the electronic calculators. The most popular instructional/organizational innovations were learning activity packets and behavioral objectives. However, the adoption rate of these latter

two innovations were much lower than for the most frequently mentioned material/equipment innovations.

Chi square tests revealed significant differences between school size for the present adoption of all innovations except electric typewriters, copying machines, office practice simulation packets, mini calculators, stencil-making machines, correcting typewriters, electronic cathode ray tube calculators, folding machines, Gregg/KEE Keyboard instruction equipment, mini courses, team teaching, flexible scheduling, and the individual progress method of teaching shorthand. Consequently, for all innovations other than those named above, Hypothesis 4 was rejected. As with the curricular offerings and predicted additions, the differences favored the larger schools over the smaller ones.

In the area of anticipated innovation adoptions, the most popular were dictation/transcription machines, office practice simulation packets, and electronic printing calculators. While for instructional/organizational innovations, the most popular anticipated innovations were the mini course and the office simulation laboratory. When the results were analyzed to determine if significant differences existed between schools relative to the anticipated adoption of program innovations, such differences were found only for mini calculators, multi-channel dictation facilities, behavioral objectives, and mini courses. Again, the anticipated adoptions favored the larger schools. Thus, Hypothesis 5 was rejected for only these four areas.

CONCLUSIONS

Based on the results of this study, several conclusions can be drawn about the present and future status of the business education

program in the state of Nebraska. Among these are:

1. The business education curriculum offerings in the state of Nebraska tend to be traditional in nature. Those courses which have formed the basis for the business education program for many years continue to be the most popular business courses presently offered.

2. The multitude of social, economic, and technological changes taking place in society in general and the business world in particular have had little effect on the curriculum offerings in Nebraska schools. Those courses which are designed primarily to provide preparation for these changing conditions are not now very popular and do not appear to become more popular in the future.

3. Nebraska business teachers are optimistic about the future of the business education programs in their schools. Few see either course deletions or enrollment declines.

4. Material/equipment innovations are much more likely to be adopted by business education departments than are instructional/organizational innovations. All schools regardless of size tend to be optimistic about the anticipated adoption of program innovations in the business education area.

5. No unusual patterns of curricular offerings or program development appear likely to be taking place in the business education programs in Nebraska secondary schools within the next five years.

6. School size has a definite bearing on the extent of the business education curriculum offerings and program innovations. Larger schools are much more likely to provide a broader range of courses and use more modern techniques, equipment and materials than are the smaller schools. This is unlikely to change in the future.

RECOMMENDATIONS

The results of this study and the conclusions drawn from it serve as the basis for a number of recommendations relating to future research in this area as well as to the business education programs in Nebraska. Among the more important of these recommendations are:

1. Additional surveys of this nature should be taken periodically to determine whether the results found in this survey tend to be repeated and to determine if the predictions made by the respondents are borne out in the future.

2. Since school size appears to limit the program offerings in business education in Nebraska, and since the large majority of schools in Nebraska fall in the small category, a serious evaluation should be made of the products of the small school business education programs. A determination of how well students who matriculate from the small schools fit into the business and office occupations which they enter should be ascertained. While the results of this survey may indicate that such students are receiving a limited business education preparation, a more valid indicator would be found by determining how readily they are able to obtain meaningful employment in these areas.

3. Ways in which small schools can share programs, facilities, and equipment need to be explored. Consideration should be given to the joint purchase of equipment by two or more school districts which in turn could share such equipment on an alternate year or semester basis.

4. The Nebraska State Department of Education and the Educational Service Units that serve the secondary schools in the state need to continue their present support of the business education in the state

by increasing the inservice preparation of teachers and by providing equipment on a rental basis for schools to use where such is feasible.

5. Business education leaders in the state of Nebraska need to take a hard look at the present and anticipated curricular offerings in the Nebraska schools and to determine by what means these programs can be altered so that the changes taking place in society and in the business world can be adequately reflected by the secondary school programs. If, as many of the national leaders in business education advocate, such changes are necessary, means need to be devised by which this information is conveyed not only to business education teachers in the state, but to school administrators and the community patrons of the school as well.

Business education is indeed in a state of ferment. Unfortunately, it does not appear that this ferment has had a significant effect on the business education programs in the majority of schools in Nebraska. Until it does, the question of how adequate students in such programs are being prepared must remain unanswered.

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APPENDIXES

Appendix A. Cover Letter for First Questionnaire Mailed

March 24, 1976

As a fellow business educator, you are no doubt interested in the curriculum offerings and instructional techniques used in other business education programs in Nebraska. I share this interest and, as a part of my graduate work, am conducting a survey of selected Nebraska business education programs to determine what curriculum changes and instructional innovations are currently taking place or anticipated.

Your school has been included in the study, and you have been identified as the person who could best describe the business education program your school offers. I would, therefore, appreciate your willingness to respond to the brief questionnaire that is enclosed and is designed to obtain information about your business education program. Although the questionnaire will take only a few minutes of your time, your responses will provide much valuable information.

Please respond to each item in the questionnaire, and return it promptly so that your information will be included in the survey findings. All responses will be kept confidential, and the results of the survey will be provided for your use.

A stamped self-addressed return envelope has been included for your convenience. Thank you for your help.

Sincerely,

Pam Troutman

Enclosures

As Ms. Troutman's adviser, I endorse this study and encourage your participation in it. The findings will provide much useful data for both secondary business teachers as well as for those who provide the preservice preparation and inservice training of these teachers.

Sincerely,

Raymond A. Ziebarth, Chairman
Secondary/Post-Secondary Education

Appendix A. Questionnaire

GENERAL DIRECTIONS

This questionnaire is designed to obtain information about the present business education program in your school as well as your opinion about its future. The questionnaire is divided into four sections. The first asks for general information about your school and its business education program; the second concerns the curriculum; the third with instructional innovations; the fourth with any additional information you may provide. Please respond to every item in each section.

Part I - GENERAL INFORMATION

Name of School_____

Address_____
street, P O Box city zip

Enrollment in grades 10-12_____ Organizational pattern of your school:

Grades 7-12_____ Grades 9-12_____ Grades 10-12_____ Other_____

Number of faculty teaching business courses: Part time_____ Full Time_____

Part II - CURRICULUM OFFERINGS

Listed below are the titles of courses which are included in business education curricula. Please indicate the status of both the present and anticipated business education curriculum offerings in your school by placing a check mark (✓) in the appropriate blank using the following directions:

A If this course is currently offered in your business education curriculum place a check mark in the blank before the subject name.

B If this course is not now a part of your curriculum but you anticipate that it will be added to your curriculum within the next five years, place a check mark in the blank before the subject name.

C If this course is currently being offered in your school but you anticipate that it will be dropped in the next five years, place a check mark in the blank before the subject name.

D Indicate in these blanks the approximate total enrollment in each subject currently offered in grades 10-12 during the present semester.

E If the subject is currently being offered and you feel that the enrollment is likely to remain the same (change less than 20 percent in either direction) during the next five years, place a check mark in the blank following the subject name.

F If you feel that the enrollment in this subject will increase significantly (more tha 20 percent) within the next five years, place a check mark in the blank following the subject name.

G If you feel that the enrollment will decrease significantly (more than 20 percent) within the next five years, place a check mark in the blank following the subject name.

turn to page 2

A	B	C		D	E	F	G
					Predicted Enrollment		
sently fered	Will Add	Will Drop	Subject Name	Current Enrollment	Remain Same	+20% Increase	-2 Decr
			1. Accounting/Bookkeeping (1st yr)				
			2. Accounting/Bookkeeping (2nd yr)				
			3. Business English				
			4. Business Law				
			5. Business Math				
			6. Business Principles				
			7. Business/Office Machines				
			8. Clerical Office Practice				
			9. Consumer Economics				
			10. Data Processing				
			11. Duplication				
			12. Economics				
			13. Filing				
			14. General Business				
			15. Insurance				
			16. Keypunch				
			17. Marketing				
			18. Notehand				
			19. Office Occupations (Co-op)				
			20. Personal Typing				
			21. Production				
			22. Record Keeping				
			23. Secretarial Office Practice				
			24. Shorthand 1-2 (1st yr) Gregg				
			25. Shorthand 1-2 Alphabetic				
			26. Shorthand 1-2 Machine (Touch)				
			27. Shorthand 3-4 (2nd yr) Gregg				
			28. Shorthand 3-4 Alphabetic				
			29. Shorthand 3-4 Machine (Touch)				
			30. Typing 1-2 (1st yr)				
			31. Typing 3-4 (2nd yr)				
			Others (please list):				
			32. _____				
			33. _____				
			34. _____				
			35. _____				

turn to page 3

isted below are several material/equipment or instructional/organizational innovations ound in many schools. In this section please indicate the status of each of these nnovations as they relate to your school and business education program by placing a heck mark in the appropriate blank in the columns following each innovation using the ollowing scale:

W This innovation is currently a part of our school program.

X Although this innovation is not currently found in our school, we anticipate that it will be within two years.

Y Although there are no immediate plans to incorporate this innovation in our school program, we hope to include it within five years.

Z We do not plan to adopt this innovation within the foreseeable future.

INNOVATION

aterial/Equipment

		W	X	Y	Z
6.	Office Practice Simulation Packets	___	___	___	___
7.	Dictation/Transcription Machines	___	___	___	___
8.	Keypunch Machine	___	___	___	___
9.	Card Sorter	___	___	___	___
0.	Computer Terminal(s)	___	___	___	___
1.	Stenograph, Stenoprint, or Stenotype	___	___	___	___
2.	Multi-Channel Dictation Facilities	___	___	___	___
3.	Electric Typewriters	___	___	___	___
4.	Proportional Spacing Typewriter(s)	___	___	___	___
5.	Correcting Typewriter(s)	___	___	___	___
6.	Card-Punch Simulators	___	___	___	___
7.	Diatype Analyzers	___	___	___	___
8.	Pacing Devices	___	___	___	___
9.	Gregg/KEE Keyboard Instruction Equipment	___	___	___	___
0.	Automatic Typewriters (Magnetic tape, card, memory, etc.)	___	___	___	___
1.	Mini Calculators	___	___	___	___
2.	Electronic Printing Calculators	___	___	___	___
3.	Electronic Cathode Ray Tube Calculators	___	___	___	___

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Material/Equipment (continued)

		W	X	Y	Z
54.	Stencil-Making Machine	___	___	___	___
55.	Copying Machine	___	___	___	___
56.	Folding Machine	___	___	___	___
57.	Collating Machine	___	___	___	___

Instructional/Organizational

58.	Office Simulation Laboratory	___	___	___	___
59.	Block Program for Shorthand Instruction	___	___	___	___
60.	Team Teaching	___	___	___	___
61.	Flexible (Modular) Scheduling	___	___	___	___
62.	Learning Activity Packets (LAPS)	___	___	___	___
63.	Business Education Instructional Materials Center (IMC)	___	___	___	___
64.	Micro-Molar Shorthand Instruction	___	___	___	___
65.	Individual Progress Method (IPM) of Teaching Shorthand	___	___	___	___
66.	Cooperative Office Education Program	___	___	___	___
67.	Behavioral or Performance Objectives (explicitly stated)	___	___	___	___
68.	Mini-Courses in Business Education	___	___	___	___

Part IV - ADDITIONAL INFORMATION/COMMENTS

If there are additional courses or other innovations found in your business education program that have not been included in the previous sections, please list and/or describe these below. Also please make any other comments you believe might provide additional information for this study.

Appendix B. Reminder Postcard

R E M I N D E R !

Recently you received a questionnaire as a part of a study of business education programs in Nebraska that I am conducting.

This postcard is my way of reminding you of the important part you have in this survey and of asking you to take a few minutes to complete and return the questionnaire.

Thank you for your help.

Pam Troutman

Appendix B. Cover Letter for Last Questionnaire Mailed

April 27, 1976

In late March I sent you a questionnaire that was designed to obtain information about the business education program in your school and to determine what changes you feel will be taking place in that program. So far I have not received your completed questionnaire.

On the chance that the first questionnaire has been lost, I am enclosing a second one. It is extremely important that I receive a completed questionnaire from every person to whom one was sent so that valid interpretations can be made from the data. Won't you please take a few moments from your busy schedule right now to complete the questionnaire and return it in the enclosed postage-paid envelope?

Thank you so much for your time and consideration.

Sincerely,

Pam Troutman

Enclosures