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OF BUSINESS TEACHING

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AN INSTRUMENT FOR THE EVALUATION OF UNDERSTANDINGS
OF BUSINESS TEACHING

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To my mother

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AN INSTRUMENT^d FOR THE EVALUATION OF UNDERSTANDINGS
OF BUSINESS TEACHING

CHAPTER I

THE PROBLEM

Introduction

American education is now experiencing some of the most extensive growth, development, and unrest in its entire history. This is both inspiring and disturbing to great numbers of educators. Criticism of educational philosophy and policies, along with criticism of the preparation of teachers, is being expressed frequently through the press and other communication media. A great deal of concern is being felt by members of the teaching profession as well as the general public. In referring to this concern about education and its effect upon business education, Payne states:

We have never had so many people actively concerned about education, nor have we ever had so many educators and laymen aggressively expressing their views on education as we have today. . . . Developments in science, the reports of Conant and others, the White House Conferences, and many other developments have had their impact upon education during the past decade. Business education groups have responded with special curriculum study groups at the local and state level. At the national level, a Commission on Business and Economic Education has been established to clarify policies; a special

NEA-UBEA committee is preparing some guidelines on business education for the academically talented student, and in many ways business educators are actively participating in studies of what has happened and they are giving direction to future developments.¹

The task of reviewing the fundamental philosophy of public education and of revamping educational policies and practices is made urgent by the increasing school enrollment and the enlarged responsibility of education relative to the welfare of the nation. American leadership is being challenged in economics, science, world politics, and in efforts to maintain international peace. The people of America are looking more intently to education for the maintenance of leadership and for growth and stability in economic and governmental affairs. Current technological developments are expanding frontiers that possess the potential for multiplying the educational problems of the future.

Going to college today is the socially accepted practice. High economic levels are enabling and encouraging students to attend college who would not have chosen to do so in circumstances which existed in the past. Many students who are not seriously planning to attend college are also being encouraged to elect college preparatory programs of study in the secondary schools. The latter situation is prevalent in

¹Vernon V. Payne, "Administering Business Education in the Sixties," The National Business Education Quarterly XXVIII, No. 4 (Summer, 1960), p. 3.

spite of the fact that a majority of youth still terminate their formal education at the high-school level or earlier.

The need for highly skilled workers is increasing rapidly along with the extension of our total economic and social interdependence. White-collar workers, chiefly in business occupations, now outnumber blue-collar workers by a considerable margin, and that margin is increasing rapidly. Various automation processes have virtually revolutionized many office and production procedures. Thus, the potential changes and improvements in education for business are too numerous to be immediately discernible.

Business education holds a significant position in the public secondary schools of this country. Commonly designated as a special area of education, as opposed to being part of the general education pattern, it involves more students than does any of the other special areas such as agriculture, home economics, trade and industry, and so forth. However, one must recognize that business education is first of all a part of the total educational program of the secondary school. Its value must be measured by the contribution that it makes to the education of the total student population.

Many business educators and curriculum planners today believe that general education is the first obligation of business education. This contribution must not be incidental. Much has been said and written in recent years concerning the

need for all high school graduates to possess economic competence, to have understanding of how the business system operates, and to have knowledge essential to appropriate consumption of economic goods and services. Business education requires action in programming to provide these educational elements.

As its second obligation, business education must continue to provide for the vocational objective. This obligation is effectively discharged only to the extent that vocational education opportunities are provided for those desiring employment in business occupations immediately after graduation from high school. Constant study of the needs of business, needs of students, and curricular patterns is mandatory to achievement of these ends. The reduction in time available for business subjects and the extremely rapid rate of change in business procedures serve as further evidence of the inadequacy of planning on the basis of assumptions or occasional evaluations.

Teacher preparation has a vital role to play in the formulation of appropriate philosophies and policies in education. Today, specialists in teacher education and in business education must assume leadership roles in the reforming of philosophy and policy and in the follow-through required for implementation in the public school system. At least a partial answer to the problems which confront business education lies in the preparation of teachers who are willing to

accept the challenges, study the problems, and institute appropriate action to achieve the objectives. It is the responsibility of teacher preparation institutions to provide programs of business teacher education which lead to competence and to provide upgrading kinds of education for teachers already teaching business subjects in the secondary schools.

The preparation of prospective business teachers must include significant amounts of general education, specialized education, and professional education if they are to become competent to fulfill various roles in teaching positions. The need for competence in the numerous facets of education open to business teachers requires that teacher preparation institutions plan effective curricula, provide instruction of high quality, and employ evaluative techniques.

It is the belief of this author that adequate evaluation of the total program of professional education, including student teaching, is essential to the development of more effective business teacher preparation. Some research has been done to develop evaluative criteria applicable to the general education and specialized education phases of business teacher preparation. However, very little has been done in terms of evaluating the extent to which prospective business teachers gain understanding of the professional phase of teacher preparation. The total effect of the study of philosophy, history, and psychology of education; the study of guidance; and the study of principles and methods of teaching business subjects

is still relatively obscure. In addition, the effect of student teaching and other professional laboratory experiences along with the natural process of maturation has not been determined through effective evaluation techniques.

This research study was developed on the assumption that a logical step to further improvement of business teacher preparation involves development of more adequate means for measuring the extent of knowledge and understanding prospective business teachers gain in the professional phase of their preparation. It is not the intent of the author to deal with either the general education or the specialized education of business teachers.

Statement of the Problem

The problem of this study was to develop an evaluative instrument to determine the extent of knowledge and understanding of the professional elements of teaching possessed by prospective business teachers.

More specifically, the problem involved three significant aspects: (1) clarification of the roles fulfilled by a business teacher, (2) presentation of background material concerning the nature of the professional education courses, pre-student teaching laboratory experiences, and student teaching as they constitute professional education for prospective business teachers, and (3) development of a

comprehensive evaluative instrument as a test of knowledge and understanding of business teaching.

Although considerable success has been achieved in educational testing for factual information, very little work has yet been done in testing for knowledge and understanding of principles particularly with objectively-scored tests. This study has constituted an exploratory attempt to devise the latter type of instrument. It is hoped that the results of this study are sufficiently interesting and challenging to cause others, through additional research, to endeavor to measure further the higher level outcomes of the professional education phase of teacher preparation.

Delimitation

This study does not constitute an attempt to evaluate the effectiveness of instruction in the professional phase of business teacher preparation, nor does it attempt to evaluate any specific program of business teacher preparation. It is not an attempt to determine whether or not business teachers will make appropriate use of the knowledge and understanding of principles gained in their professional preparation. The instrument constitutes only an experimental approach to testing of professional knowledge and understanding possessed by prospective business teachers.

Source of Information and Data

The information that was required in the clarification of the educational roles fulfilled by business teachers was obtained from a variety of published and unpublished materials including periodicals, bulletins, brochures, pamphlets, and research studies pertaining to business teacher preparation. The information that was required in establishing the nature of the professional phase of business teacher preparation was derived primarily from textbooks and yearbooks in such areas as history and philosophy of education, guidance and counseling, school administration, public relations, principles and methods of teaching business subjects, and student teaching. The bulletins of the National Association for Business Teacher Education were especially valuable in this phase of the research.

A number of textbooks in the area of educational tests and measurement provided insight and fundamental ideas relative to test item construction. In addition, authoritative textbooks devoted to educational statistics provided the statistical methods and procedures and the formulas which were utilized in selecting test items and in establishing the reliability and validity of each item and of the total evaluative instrument.

The raw data in this study, consisting of responses to each of the questions in the test, were obtained through administering the test to an appropriate sample. In the

final testing step, total test scores and response to each of 119 questions were accumulated from the sample of 100 prospective business teachers in the final semester of their undergraduate preparation for teaching.

Procedure

The first step in this study was to make an extensive analysis of literature concerning the professional phase of business teacher preparation. From this analysis, six roles were clarified in which business teachers function in secondary schools and the activities relating to the work of business teachers in each of the roles were determined.

The second step was a careful study of literature concerning the professional phase of business teacher preparation. This step provided background material concerning the nature and content of a business teacher's total undergraduate professional preparation. In this step, the professional phase was analyzed in terms of its application to each of the six roles performed by business teachers. The professional knowledges and understandings which a business teacher should possess were isolated.

The third step in this study was the development of a comprehensive evaluation instrument. Test questions pertinent to the knowledges and understandings previously determined were constructed for six educational roles fulfilled by business teachers and test items were constructed for each

role. Preliminary testing was done by administering questions pertaining to each of the specific roles to prospective business teachers. Questions that did not discriminate were revised and the test was administered a second time to another group of prospective business teachers. On the basis of the results of the second testing, questions which did not discriminate sufficiently were again revised. This procedure was followed for a third time and 119 questions were finally determined to be appropriate for administration to the sample of prospective business teachers utilized for final testing.

In the fourth step the sequence of the 119 test items was determined and the final form of the test was duplicated, administered to 114 persons, and then scored.

The fifth step in this study involved determination of the reliability and validity of the evaluative instrument. Utilizing the test scores of 100 persons and the responses to each of the 119 items in the test, statistical analysis techniques were applied to determine the reliability and validity indices of individual test items and of the total evaluative instrument.

The final step in the solution of the problem was the preparation of this research report.

CHAPTER II

BACKGROUND FOR THIS STUDY

Having exhausted all available sources of reference, the author reached the conclusion that there were no pertinent findings from prior research to introduce consideration of the evaluation of professional knowledges and understandings possessed by prospective business teachers. The problem involved in this study was unique in that it concerned a relatively new kind of evaluative technique in an area in which little if any significant prior research relating directly to the problem has been conducted.

An attempt is made in this chapter to present general background information which is pertinent to evaluation of knowledge and understanding of the professional aspects of business teacher preparation. This information is presented so that the reader may more readily analyze the developmental procedure utilized and adequately evaluate the test instrument that is presented in the final chapter.

Of concern throughout this study were those aspects of business teacher preparation which constitute primarily "what to teach" and "how to teach"--the professional education phase. The general education and specialized business

education phases of business teacher preparation are discussed only sufficiently to provide proper perspective for consideration of the professional phase.

The remainder of this chapter is divided into two sections dealing with the business teacher in the secondary school and the preparation of the secondary school business teacher. In the material pertaining to the business teacher in the secondary school, six major roles of the business teacher are described in terms of functional professional abilities as contrasted with utilization of general education or specialized business education.

In the material pertaining to the preparation of the business teacher, an attempt is made to show the significance of professional education, the nature of it, and the manner in which it is expedited in teacher education programs. Emphasized are the manner and extent to which elements of educational theory and educational practice are fused in the development of functional professional ability in business teachers.

The materials developed in this chapter form the basis for the construction of the test items in the evaluative instrument which was administered to prospective business teachers. Discussion of the roles fulfilled by the business teacher points up the kinds of professional knowledges and understandings he should possess. The discussion of the preparation of the business teacher points up how he

should gain those knowledges and understandings in the process. Finally, the evaluative instrument developed in this study may have usefulness in measuring the extent to which he gains the desired knowledges and understandings.

The Business Teacher in the Secondary School

The professional roles, or areas of educational activities, in which business teachers must function in secondary schools have been established in several comprehensive research studies. Of particular significance in this regard are the studies that have been completed by Thompson¹, Kessel², and Ebert³. To facilitate consideration of the basic content of student teaching, Ebert isolated six roles which business teachers fulfill. The specific roles constitute a composite listing of the teaching expanse presented in other significant research studies. It may be assumed that the roles defined by Ebert, include all of the significant elements of teaching as experienced by business teachers in

¹ Robert James Thompson, "The Competence of Secondary School Business Teachers" (unpublished Ed. D. dissertation, Stanford University, 1956).

² Robert M. Kessel, "The Critical Requirements for Secondary School Business Teachers Based Upon an Analysis of Critical Incidents" (unpublished Ph. D. dissertation, University of Wisconsin, 1957).

³ Geraldine B. Ebert, "Basic Content for the Student Teaching Phase of Business Teacher Preparation" (unpublished Ed. D. dissertation, University of Oklahoma, 1961).

secondary schools. These roles in which business teachers should display competence are as follows:

1. a curriculum planner
2. a guidance worker and counselor
3. a director of learning
4. an adviser of extra-class activities
5. a liaison between the school and community, and
6. a member of the profession.¹

The material that follows in this section is designed to substantiate each of the six roles. Many of the major elements that must be pointed up in the professional education phase of the preparation of beginning business teachers are clarified. These are the same major elements over which test items were prepared in constructing the evaluation instrument developed in this study. Each of the six roles is presented separately.

A Curriculum Planner

Business teachers should be, in a large measure, proficient as curriculum planners. Competence displayed in this role is the result of their general formal education, of their specialized business preparation, of their professional education, and of knowledge gained through the natural process of maturation and teaching experience.

By means of professional education experiences, the business teacher should be enabled to exercise careful and critical judgment and to view the total school program

¹Ibid., p. 29.

objectively. He should possess knowledge and understanding of the construction of the total program in the secondary school in which he teaches and should be thoroughly acquainted with the contributions of the business aspects to the over-all educational aims.

Business teachers should be aware that curriculum planning involves far more than setting up the objectives of the curriculum and the subjects to be taught. Each business subject taught, as well as subjects in all other areas, must make a separate and definite contribution to the total program.

Business teachers should cooperate with their co-workers in analyzing the content of subjects offered in all areas to ensure that students, those who will terminate their formal education with high school as well as those who will continue their education, have an opportunity to gain the best education possible. As Stratemeyer and her associates point up:

The potential contribution of many aspects of the program to the learner's development makes it necessary for those responsible for one part of the program to know what experiences he is having in others. Only then will there be the needed reinforcement of learning that builds for desired competence.¹

¹F. B. Stratemeyer, H. L. Forkner, and M. G. McKin, Developing a Curriculum for Modern Living (New York: Bureau of Publications, Teachers College, Columbia University, 1947), p. 384.

An adequate business program is essential to the success of a comprehensive high school. To ensure adequate business curricula, business teachers must possess a sound understanding of the two-pronged purpose of education for business. Basic business offerings should be included in the curriculum to provide students with opportunities to gain the proficiency necessary to carry on business activities that center around the home and personal business life, and to gain understanding of business activities which promote intelligent participation in the business life of the community, the state, and the nation. Business teachers should point up the need for these proficiencies to all persons involved in curriculum planning. According to Forkner:

Every young person, regardless of his future vocational or professional aspirations and accomplishments, will constantly be called upon to make decisions and take actions that are based on knowledge about business and its operations.¹

Basic business offerings should also be included in the curriculum to provide background understandings for pupils who wish to further their study of business in institutions of higher learning.

Job-preparation offerings in business should be a part of the curriculum to provide certain pupils with the

¹Hamden L. Forkner, "Characteristics of Business Education in Our Expanding High School," The Business Education Program in Our Expanding High Schools, Bulletin No. 225 of the National Association of Secondary-School Principals, XLI (Washington, D. C.: January, 1957), p. 13.

skills and knowledges that constitute occupational ability.

Nichols pointed up the essentials in this area when he wrote:

. . . sufficient skill to meet initial employment standards must be developed, an awareness of the environmental demands of first jobs must be acquired, and basic understanding of business principles so essential to advancement must be assured, in any sound vocational business-training program.¹

For the pupil preparing for employment in business, both job-preparation business subjects and basic business subjects are necessary. Business teachers should realize that a young worker in business should not only develop a functioning type of occupational intelligence but also acquire a background of business information that will aid him both as a worker and as a consumer of goods and services. Lessenberry expresses this view as:

What a young worker can do is important, of course, but what he knows about general business and what he understands about the economic system are equally important.²

Aims and objectives of a business curriculum should be based on a thorough knowledge of the needs of individual pupils. Nichols stressed this belief which business teachers should hold when he wrote:

¹ Frederick G. Nichols, "Business Education--Clerical and Distributive," Vocational Education, Forty-Second Yearbook of the National Society for the Study of Education, Part I (Chicago, Illinois: Department of Education, The University of Chicago, 1943), p. 218.

² D. D. Lessenberry, "Office Education in the United States," Challenges in Business Teacher Education, Bulletin No. 67 of the National Association of Business Teacher Education (Washington, D. C.: 1957), p. 15.

If commercial education is to be truly vocational, it must be organized with specific people in mind. If it is to function as sound general education, it must be organized with the needs of definite people and their capacities for education clearly understood.¹

Course and subject offerings should differ to some extent among secondary schools. Nichols² points up that business offerings are limited by the kind and size of school, ability of the teacher or teachers, school plant, equipment available, and attitudes of the school officials.

Business teachers should be aware that the needs of the immediate community form the basis for subject content in both basic business and job-preparation business education. Curricular offerings of the small rural high school should differ in breadth from those of the urban high school, but the depth of the subject content should differ only for the individual pupil in terms of his learning potential.

Proper sequence of subject offerings is essential in maintaining an adequate business curriculum. Thus, business teachers need to know how subjects should be placed in the curriculum to complement the learning process. As Forkner states:

He (the teacher) must know what an effective organization is like and the sequence of events in the learning process that produce the best results. . . .

¹Frederick G. Nichols, Commercial Education in the High School (New York: D. Appleton-Century Company, 1933), p. 100.

²Ibid., p. 116.

the teacher must know what objectives the learner has for himself. If the learner has not arrived at a mature enough stage in his development to know his objectives, then the curriculum must be so designed that it will assist him to develop in a way that is compatible with his abilities and potentialities.¹

In the early part of the high school program, general education subjects are most frequently offered, and, as students advance, their programs become more specific. This direction is common in all phases of high school education. Business teachers should plan programs so that offerings in the early stages are designed for development of basic skills, general concepts, and understandings. Offerings in the junior and senior years should provide more specific training.

In summary, business teachers as curriculum planners should possess knowledge and understanding relative to the construction of the total school program. They should cooperate with other teachers in analyzing the content of offerings in all areas of education to ensure the best possible education for students. They should understand the two-pronged purpose of education for business. They should maintain adequate business programs which provide in the best possible manner for the business needs of individual pupils.

¹Hamden L. Forkner, Curriculum Planning in Business Education, Eighth Annual Delta Pi Epsilon Lecture, Chicago, Illinois, December, 1949 (Cincinnati, Ohio: South-Western Publishing Company, 1950), p. 9.

A Guidance Worker and Counselor

Business teachers should fully realize the importance of guidance in secondary schools. Eyster aptly expressed the purpose of guidance by stating that it ". . . serves as a mortar that forms the bond between the objectives of the school and its curricular structure."¹

An adequate and well-organized guidance program is a significant determinant of the success of the over-all program. Just as it is essential for curricula to be designed to meet the needs of pupils, it is essential also that guidance programs be maintained which aid each pupil in fully developing his capacities and abilities.

The business teacher should be aware that his role as a guidance worker and counselor varies with the size of the school and the complexity of the guidance program maintained. Guidance services provided by high schools follow no set pattern as some schools maintain the centralized type of organization while others utilize either decentralized organizations or a combination of the two.

Regardless of the type of organization maintained for guidance, all teachers, including business teachers, should assume definite roles as guidance workers and counselors. "Every teacher an effective counselor, every counselor an

¹Elvin S. Eyster, "Curricular Organization for Guidance," Guidance Problems and Procedures in Business Education, American Business Education Yearbook XI (Somerville, New Jersey; Somerset Press, 1954), p. 56.

effective teacher--this must be the goal if we are to do an effective job."¹

Business teachers, as well as teachers in other areas, should understand and appreciate the cardinal characteristics of good counseling programs and the responsibilities they should have in such programs. They should be as concerned about educational guidance and occupational guidance as are the guidance counselors.

A business teacher should constitute a source of information and provide guidance services relative to education in general and to vocations; especially vocations in the area of business. He should know the job opportunities, nature of the work done, and the likelihood of employment. He should provide guidance in talking with pupils concerning study habits, interests, scholastic records, and future plans.

Adequate information about pupils is the basis for good guidance. Thus, business teachers should make certain that cumulative records for each of their students are maintained either in the central office or in the business department. They should understand the testing programs used by their respective schools and be proficient in interpreting test results. They should regard records as useful for

¹Hamden L. Forkner, "Let's Make Post-War Planning for Business Education Real," Dictaphone Educational Forum (November-December, 1943), p. 16.

guidance purposes but not consider them as the only sources of information. As Eyster contends:

Tests, inventories, and prognostic techniques must be considered not as infallible devices, but merely as supplementary guidance devices that may indicate the presence or absence of special abilities.¹

It is essential that business teachers know that good guidance and educational counseling for business involves a continuous process and requires cooperative efforts of school personnel, parents, and business people of the community. Guidance and counseling should take place before, during, and after the making of an occupational choice. Lessenberry pointed up the importance of continuous guidance when he stated:

We know the value of exploration of pupil interest and abilities. We are aware of the necessity for appraisal of stated objectives and reappraisal in terms of reasonable certainty of ability to achieve these objectives.²

Counseling and guidance relative to education for business should be provided not only for pupils interested in business occupations but also for those interested in gaining knowledge of business for other reasons. In their counseling,

¹Eyster, loc. cit., p. 72.

²D. D. Lessenberry, "Providing Guidance to Meet the Changes in Business Education," Modernizing Business Education, Eleventh Yearbook of the Eastern Commercial Teachers' Association (Philadelphia: Eastern Commercial Teachers' Association, 1938), p. 17.

business teachers should consider the four groups of pupils indicated by Lomax:

a. The group of high school graduates and drop-outs who will probably enter business employment immediately after leaving high school or completion of military service.

b. The group of high school students who will begin their business occupational preparation in high school and then complete that preparation in post-high school institutions.

c. The group of high school students who will begin and complete their preparation for a business career in an institution of higher education or one beyond the high school.

d. The group of high school students who have chosen a non-business career, but who will desire certain business subjects as electives.¹

In summary, business teachers should be fully aware of the significance of providing adequate guidance in secondary schools. They should know the nature of their duties for providing guidance in their respective schools. They should possess the necessary qualifications for counseling pupils. They should provide guidance relative to education for business for all interested pupils.

A Director of Learning

A competent director of learning is one who possesses the necessary ability, judgment, and understanding to aid his pupils in developing into citizens who will participate intelligently in community, state, and national affairs. He

¹Paul S. Lomax, "Essentials of Business Education to Meet Current Challenges," Balance Sheet (October, 1959), pp. 55-56.

realizes that survival of the American way of life depends upon an enlightened citizenry.

Education must build the understanding that man must live with his fellowmen, and that each person should contribute to his group to the best of his abilities. For such understanding to be built, the objectives of education cannot be gained by memorization of facts and mechanical formation of habits. Pupils must be led to think, to reason, and to understand. Thus, directors of learning should strive to enable pupils to gain understanding of "why" as well as "how" in the solving of daily problems. Lessenberry forcibly states the need for this kind of teaching:

The schools must never cease striving to open out the way so that this imprisoned splendor (Emerson's "truth") may escape. That is why schools and colleges exist. That is why teachers teach. They want to instill a sense of confidence and plant the seeds of expectancy in the student as they teach him to think. They do this as they put problems before him--worthy problems, difficult problems perhaps, but problems big enough, compelling enough, and important enough to cause him to stretch his mind. The student won't be left "uneducated by our education" if he learns to reach with his mind.¹

By means of their professional preparation, business teachers should be, in a large measure, competent directors of learning. They display their abilities in planning learning situations, in selecting and preparing appropriate teaching materials, in selecting appropriate teaching methods, in

¹D. D. Lessenberry, "Reforming the Future," Delta Pi Epsilon Journal, I, No. 1 (September, 1957), pp. 10-11.

utilizing appropriate teaching aids, and in supervising and evaluating the learning activities.

Teachers of business should recognize that planning is the key to directing successful learning situations. Long-range plans should be made to achieve pre-determined objectives, with day-to-day planning fitted into the long-range framework. "The task of business education is an important task. If we are to do it well, we need to do some planning both on a short-term and long-term basis."¹

Pupil participation in planning of instruction stimulates interest and constitutes a strong motivating force. After extensive pre-planning, business teachers should interpret the objectives of each subject to their pupils and seek their cooperation in setting up the means to accomplish the objectives. Forkner emphasizes that "Cooperation is the foundation of good work habits and of a healthy, happy community."²

Lesson plans should be comprehensive and, at the same time, flexible. Lessons should be so planned that pupils are appropriately busy from the time they enter classrooms until the close of class periods. They should provide for the improvement of each student's abilities in the fundamental processes and the development of proper attitudes and good work

¹Hamden L. Forkner, "What Planning Will Do for Your Pupils," Dictaphone Educational Forum (September, 1950), p. 11.

²Hamden L. Forkner, "Guidance to Good Teaching," Dictaphone Educational Forum (April-May, 1953), p. 10.

habits. Routine aspects of class management should be included. Lesson plans should be kept flexible to facilitate more time for pupils to gain understanding of key points or changes in presentation needed to aid the learning.

Learning experiences should be planned which provide for growth in ability of each pupil. Both individual and group activities should be provided to challenge pupils of various abilities. As Lessenberry points up:

We must not forget it is just as important to identify the near genius and to provide work that will challenge him as it is to identify the near moron and adjust the educational challenge to this shorn lamb.¹

A thorough knowledge of the subject matter to be taught is essential to good teaching. Business teachers should maintain knowledge of subject matter by continually adding to it through planned reading programs which enable them to keep abreast of current educational and business practices.

Subject matter should be drawn from sources within the surrounding community. Meaningful subject matter drawn from the community is closely related to the daily experiences of pupils. Therefore, interest is stimulated because here are real learning activities rather than hypothetical

¹D. D. Lessenberry, "Providing Guidance to Meet the Changes in Business Education," Modernizing Business Education, Eleventh Yearbook of the Eastern Commercial Teachers' Association (1938), p. 21.

situations. The need for such subject matter is indicated by Forkner when he states:

The materials of instruction must take into account the fact that reading about social and economic problems is not going to accomplish the purpose of helping all individuals deal more effectively with business relationships than they do at present.¹

In addition to supplying information which adds to the general education of all pupils, subject matter should supply that which will increase the occupation competency of those who enter business. Lomax points this up:

The business education program is peculiarly a community enterprise both in relation to the business people and in relation to the consumers of business goods and services.²

Subject matter should be selected which meets the needs of individual pupils. A business teacher may have pupils in a particular class who are studying the subject for general purposes and others who are studying the subject for employment purposes. In such instances, class activities should be varied so that each pupil can achieve his desired goal.

Subject matter should be analyzed to determine the method or methods of teaching that will best enable the

¹Hamden L. Forkner, "General Education for Business-- A Proposal for Action," Balance Sheet, XXXX, No. 1 (September, 1958), p. 12.

²Paul S. Lomax, "Secondary School Problems Are Business Education Problems," Journal of Business Education, XXIX, No. 6 (March, 1954), p. 235.

pupils to grasp information and to make practical applications of that information. Thus, business teachers should understand the learning process and know how to apply it in teaching pupils.

Business teachers should be aware that all behavior is motivated and that learning is determined by past experiences, attitudes developed, and goals toward which the pupil is working. They should strive to help each pupil gain emotional security by using a positive approach to the learning situation, by helping each pupil to clarify his thinking and planning, by giving praise for achievement, by making tactful corrections and helpful suggestions, and by maintaining a calm but enthusiastic attitude which is conducive to learning.

In skill classes and in basic business classes, business teachers should stress the relationship to the task at hand of previous learning about business as well as learning in other fields of study. By this means the learning becomes a continuous process and the subject matter is more thoroughly mastered. "Methods should provide for relating of the new things to be learned to pertinent and familiar experiences of the pupils."¹

Teaching aids should be selected with care. Audio-visual aids should be used by business teachers to enrich the

¹
Ibid.

learning; however, teaching aids should be used only when they will enhance the learning of the lesson or unit being taught. The aid should be fitted into the lesson at the time it will be most effective. In discussing the use of teaching aids, Eyster says:

. . . they (audio-visual aids) offer tremendous possibilities for the enrichment of learning by supplementing the work of the regular teacher. They become curses on education when teachers employ them in lieu of teaching.¹

Business subject matter falls into two distinct categories--that which primarily concerns economic information dealing with goods and services consumed by all citizens and that which pertains to developing a skill or skills and related knowledges for an employment situation. Methods of teaching the basic business subject differ considerably from methods of teaching business skills.

In teaching basic business subject matter, teachers should use methods of instruction that aid pupils in developing concepts, understandings, and skills necessary for sound economic living. Activities must be many and varied for pupils to gain information and then apply it in problem solving. Teachers should guide pupils in the acquisition of certain economic facts, in the development of clear points of view regarding these facts, in the development of proper

¹Elvin S. Eyster, "Are Teachers Selling Their Profession Short?" Journal of Business Education, XXXII, No. 7 (April, 1957), p. 298.

attitudes relative to economic problems, and in the acquisition of skills that are necessary for handling everyday business transactions adequately.

Methods of teaching which are commensurate with pupils' background experiences and which meet individual needs and abilities should be utilized in each unit of work taught. When pupils are not gaining the desired learning by one method, the teacher should quickly modify the procedure and approach the goal from another direction. "Not all instructional procedures work equally well with all students. Not all so-called instructional procedures work well with even a majority of the students."¹

In directing the learning experiences of students, business teachers should constantly strive to instill in each person the value of proper attitudes, good work habits, human understandings, and self-direction. Classroom environment which is conducive to the development of these traits should be created and maintained.

Teachers should apply the psychology of skill building in teaching business skills. They should aid pupils in the development of correct techniques--the basis for development of high rates of speed and accuracy. Consequently, in the early stages of learning a skill, teachers should be more

¹D. D. Lessenberry, "Purposeful Practice in Typewriting," Modern Business Education, XV, No. 1 (November, 1948), p. 7.

concerned with pupils' techniques than with the product of their work.

Business teachers should be fully aware that a skill is learned by doing and that repetition must be purposeful. Before each drill, the "why" and "how" of the exercise should be stressed as the learner's rate of progress depends upon lack of tension, a positive attitude, and concentration on how the task is done.

After pupils have learned the fundamentals of a skill, teachers should direct the utilization of that skill in problem situations, and should encourage the use of that skill in actual use situations. Part of each class period still should be retained for further development of speed and accuracy after pupils begin to use their skills in problem situations. Lessenberry points up that "Once problem typewriting is begun, the basic skill tends to deteriorate. Skill maintenance calls for planned emphasis on rebuilding basic skills at stated intervals."¹

Classes in the skill subjects should be conducted in a manner which will aid pupils in obtaining employment. Courtesy, good work habits, proper attitude toward work, acceptance of responsibilities, self-direction, and cooperative

¹D. D. Lessenberry, "Basic Skill for Better Personal Typewriting," Business Education Forum, X, No. 2 (November, 1955), p. 12.

spirit should be stressed throughout the learning program, for as Nichols said:

Teaching should not be limited to specialized segments of life but should include life in its manifold aspects. In this way we ultimately develop individuals who make outstanding and lasting "first impressions."¹

In evaluating achievement, business teachers should firmly keep in mind that the primary purpose of testing is measurement of achievement and not the assignment of grades. Teachers should apply a variety of techniques in gaining a composite estimate of each pupil's growth in terms of the objectives set forth for the subject being taught.

A teacher should construct and apply an evaluative instrument that tests effectively the phases of learning which he is seeking to measure. Elements of learning such as factual information, relationships, understandings, growth in skill, and behavior require carefully prepared evaluative instruments that give reasonably true estimates of achievement in each of the elements. The teacher should be aware that skillful evaluation of pupils' achievements also reveals a teacher's achievement as a director of learning. Eyster says:

Measurement of learning not only for diagnostic purposes but for determination of achievement requires professional knowledge and skill. Measurement

¹Frederick G. Nichols, "Criticism, Comment, and Challenge," Journal of Business Education, XXIX, No. 4 (January, 1954), p. 154.

techniques properly applied reveal teaching effectiveness as well as student achievement.¹

In basic business subjects and in skill subjects, business teachers should be cognizant of the fact that evaluation is much broader and more comprehensive than mere testing. Pupils should be evaluated through careful observation of each pupil response and example of behavior. Individual conferences should be held so that evaluation of each pupil's weaknesses and his strengths can be made and means for continued progress can be decided. Business teachers should evaluate not only growth in knowledge, attitudes, and understandings but they should also evaluate each pupil's activities for growth in the basic tools of learning.

In summary, business teachers, as directors of learning, should be proficient in planning learning situations, in selecting and preparing appropriate teaching materials, in selecting appropriate teaching methods, in utilizing appropriate teaching aids, and in supervising and evaluating the learning activities. They should direct all phases of the learning in a manner that aids their pupils in becoming enlightened citizens with desirable human ideals, aspirations, and values.

¹Elvin S. Eyster, "Essential Qualities for Teaching Competency in Collegiate Schools of Business," Journal of Business Education, XXIX, No. 2 (November, 1953), p. 64.

An Adviser of Extra-Class Activities

Business teachers should assume their duties as advisers of extra-class activities with pride and enthusiasm. They should be proud because pupils usually elect as an adviser a teacher whom they respect. They believe that he will assist, not dictate, and that he is capable of aiding them in making wise decisions. Teachers should be enthusiastic because pupils' participation in creative group activities contributes much to the development of self-confidence, social poise, responsibility, and leadership. Nichols emphasizes that ". . . situation for situation, extra-curricular situations may be made to contribute more to trait development than can classroom situations."¹ In addition, projects undertaken can be the means by which pupils have opportunities to learn more about business occupations, to cooperate with business in community projects, and to gain an understanding of the effectiveness of cooperative efforts. "It is through organizations that they learn to plan and work together for the good of the group."²

If a business teacher is to perform effectively as an adviser of a student organization, he must become acquainted

¹ Frederick G. Nichols, Personality Development, A Report Prepared and Sponsored by Business Research Associates (New York: Gregg Publishing Division, 1952), p. 49.

² Hamden L. Forkner, "Developing Pupil Activity Through Extra-Class Activities," Appraising Business Education, American Business Education Yearbook III (Somerville, New Jersey: Somerville Press, Inc., 1946), p. 272.

with each member of the group as soon as possible. He must encourage each member to participate actively in projects and to serve in various capacities throughout the school year.

Members of groups often need guidance and assistance to carry out purposeful activities. When they either advance beyond their abilities and cannot find solutions to their problems or stray from their purpose, the adviser should make tactful suggestions. As members, delegated to carry out certain duties, seek assistance, it should be provided. However, the adviser should neither assume leadership nor do the work in planning and carrying out projects. For as Forkner says: "The chief thing to bear in mind is that we want young people to develop responsibilities."¹

Group meetings should be conducted in a businesslike manner. Members should understand that accomplishments depend upon procedures and that meetings should deal with matters of interest to all members.

Tactful coaching should be resorted to when occasions demand such action. If a member is not given an active part, the adviser should suggest to other members that they draw such a person into activities. If some pupils favor rowdy parties and initiations, the adviser should point up the unworthiness of these activities to other members and suggest ways in which such activities can be avoided. Direction

¹Hamden L. Forkner, "Let's Get Down to Business," Dictaphone Education Forum (December, 1951), p. 7.

should be provided without involving personalities and without embarrassment to a member or members.

In summary, business teachers, serving as advisers of extra-class activities, should aid pupils in developing into socially participating, growing adults. They should guide pupils in such a manner that activities will be means by which pupils learn more about the business world they will enter. They should lend direction to extra-class activities as members plan and carry out worthwhile projects.

A Liaison Between the School and the Community

A good public relations program between educators and businessmen is necessary for maintaining an effective business education program in the secondary school. Good public relations between educators and lay people result in the community showing extensive interest in the education of its youth and encouraging school projects which use the community as a laboratory. Business teachers should seek the cooperation of business men to make their business programs more realistic and practical. Eyster contends:

That close cooperation between schools and business firms is necessary for establishing and maintaining high levels of business education is unchallenged among both businessmen and business educators.¹

¹Elvin S. Eyster, "Business-School Cooperation--Whose Responsibility," Journal of Business Education, XXX, No. 4 (January, 1955), p. 155.

Pupils, businessmen, and teachers profit by cooperating. Pupils profit by having more opportunities to gain an understanding of business practices, procedures, and responsibilities of business to the community; to gain an appreciation of the American economic system and its effects on our government; and to become efficient, well-adjusted workers. Businessmen profit by receiving better prepared employees and better informed consumers. Business teachers profit by the assistance they gain from businessmen in providing better educational opportunities for their pupils to become socially minded citizens and competent workers.

Community resources should be utilized by business teachers in aiding their pupils in gaining occupational information and in enriching economic education. Young people become more interested in choosing vocations and use greater care in making decisions when they have contact with qualified persons employed in the various occupations and fields of business. Such contacts are also advantageous for pupils when they are seeking employment, as businessmen often employ those who are well-qualified and evidence interest. By utilizing community resources pupils are enabled to observe and appraise information gained through study. Consequently, they gain greater understanding of economic functions as they relate to human welfare.

Business teachers should be aware that, if office training programs are to be "job-preparation" programs, the

training must meet the business standards for beginning employees. They should also be made to realize that in many instances employers' so-called standards are not true indicators of their demands of workers. Therefore, business teachers should work with office employer groups to determine intelligent and realistic standards and to develop the business education necessary for occupational competence. As Nichols wrote:

Employers of office workers and vocational business teachers must unite in a vigorous effort to bring both initial employment practices and school graduation standards into line with modern personnel practices and acceptable standards of sound vocational training.¹

Thus, good public relations between business teachers and the businessmen of the community are essential for maintaining an effective program of business in the secondary school. All pupils, businessmen, and teachers profit by their cooperative efforts to make business education more realistic and practical, because community resources utilized by business teachers for instructional purposes contribute much to vocational preparation and economic education.

A Member of the Profession

Business teachers should have faith in the American system of education and should believe that business education

¹Frederick G. Nichols, "Using the Findings of Job Studies to Improve Instruction in Business Subjects," Business Education Forum, XII, No. 8 (May, 1953), p. 29.

is making significant contributions to the preparation of youth for effective participation in society. At the same time, they should realize that many problems exist in education and in business education and that improvements are needed.

Planning for improvement in educational practices and solving school problems require united efforts. Therefore, business teachers should cooperate with their co-workers and administrators in such endeavors. They should advise pupil organizations and other school activities and share in numerous small tasks which are connected with over-all secondary school programs.

The strength of any organization lies in the people who constitute that organization's membership. Business teachers should be active members of education and business education organizations. They should be well acquainted with the purposes and programs of these organizations and aware of the personal values each receives as a classroom teacher and the professional values each shares in furthering education. They should know that the success of each undertaking depends on intelligent cooperation and support from the entire membership.

Business teachers should be intensely interested in self-improvement. They should participate in workshops and other types of professional in-service programs; engage in action research and carry on programs of self-evaluation, as

they perform their duties as directors of learning; and associate with business organizations pertaining to office management, personnel management, and secretarial work. In addition, they should carry out a planned reading program, which enables them to keep abreast of current educational practices and trends. A planned reading program for business teachers is recommended by Lomax:

While you keep yourself up-to-date, in part, when you serve as an active member of professional organizations to which you belong, you also need to extend your knowledge of vital happenings and trends by extensive reading of current literature in education and business.¹

Thus, professionalism, to business teachers, should mean cooperating with groups and organizations in activities that aid in promoting education and business education. It also should mean individual efforts for improvement.

The Preparation of the Secondary School

Business Teacher

Referring to adequate preparation for business teachers, Tonne states:

Adequate preparation requires that teachers of business subjects should have (1) the skills and attitudes desirable for all educated persons, (2) training in business or in some phase of it,

¹Paul S. Lomax, "Developing a Wholesome Professional Attitude," Suggestions for Beginning Business Teachers, American Business Education Quarterly, XII, No. 4 (May, 1956), p. 216.

(3) a knowledge of principles and methods of teaching, and (4) a general cultural education.¹

Teacher educators responsible for curriculum planning in business teacher preparation today agree that there must be programming for adequate general education, specialized business education, and professional education. In determining appropriate education for their students in each of these three areas, these educators are confronted with consideration of breadth and depth. That is, how extensive should the preparation be in each of these areas?

Fundamental Considerations in Business

Teacher Preparation

In 1952, the National Association for Business Teacher Education developed "A Proposed Statement of Business Teacher Certification Policies".² In it are recommended certain flexible allocations of broad areas in the undergraduate program of business teacher education. For the bachelor's degree, the recommendations are as follows: general education 38 to 42 per cent; business and related subject matter, 38 to 42 per cent; general and special professional education including

¹ Herbert A. Tonne, Principles of Business Education (3rd ed.; New York: Gregg Publishing Division, McGraw-Hill Book Company, Inc., 1961), p. 480.

² "A Proposed Statement of Business Teacher Certification Policies," Criteria for Certification of Business Teachers. Bulletin No. 56 of the National Association for Business Teacher Education (Washington, D. C.: United Business Education Association, 1952), p. 10.

student teaching, 16 to 24 per cent. Because of the influence of the NABTE organization throughout the United States, many colleges and universities have attempted to provide programs of business teacher education that conform to the above recommendations.

In 1960 Bangs¹ emphasized that adequate consideration can be given to the three major phases of business teacher preparation. In general, but in a somewhat different context, he advocated continued conformance with the pattern recommended by NABTE in 1952. Specifically, he stated that:

The business education curriculum at the collegiate level should embrace a minimum of three subject matter areas. They are general, or liberal, education; professional education; and specialized education in the field of business as an area of emphasis for teaching. These three areas can be covered adequately under the rulings of the American Association of Collegiate Schools of Business which state that at least 40 per cent of the curriculum must be devoted to general education and at least 40 per cent of the curriculum must be devoted to education for business. Following this pattern, a curriculum may be developed for preparing business teachers which would devote 40 per cent of the curriculum to general education, 20 per cent to professional education, and 40 per cent to specialized training in business.²

It is evident that business teacher preparation programs are commonly thought of in terms of credit hours and specific kinds of courses. Tonne effectively challenges this approach to curriculum planning in the following statement:

¹F. Kendrick Bangs, "Curriculum Revision in Business Education at the Collegiate Level," The National Business Education Quarterly, XXVIII, No. 4 (May, 1960), pp. 16-17.

²Ibid.

The minimum requirement for teachers should be a certain level of ability rather than a certain number of credits. However, until the point of view of the American teacher and school administrator changes, the requirements will be in terms of courses rather than ability.¹

At the present time, the NABTE organization has a curriculum study project under way in an effort to meet, at least in part, the challenge raised by Tonne. The purpose of the project is to identify and evaluate the subject content elements of business teacher education. The significance of this project for all of business education is indicated by Rowe:

All who are interested in business education, teachers of basic business and skills in colleges as well as in high schools, have a "stake" in the present NABTE Project--Curriculum Planning, Guidance, and Teaching Methodology--a project designed to inventory present subject content in relation to more realistic needs of our students so that we might prepare more adequate teachers to fulfill these objectives and newer aims. Valueless curriculum content should be discarded; items should be added for which there is need.²

The study is limited to the undergraduate curriculum which serves to provide the preservice education for most business teachers. All member schools of NABTE will have the opportunity and responsibility of participating in it. Data obtained will be compiled in bulletin form so that colleges and

¹Tonne, loc. cit.

²John L. Rowe, "An Audit, an Analysis, an Appraisal, and a Program for Action," New Dimensions in the Preparation of Business Teachers, Bulletin No. 74 of the National Association for Business Teacher Education (Washington, D. C.: United Business Education Association, 1961), p. 2.

universities may appraise their own business teacher preparation offerings according to priorities given to subject content elements by business educators who have spent considerable time in the identification and evaluation processes. This study constitutes a concerted effort to determine the essential and optimum elements of business teacher education.

Professional Preparation of Business Teachers

With the three major phases of the preparation of business teachers pointed up significantly, the remainder of this chapter is devoted only to consideration of one of those phases--professional education. This is the area with which this dissertation is most vitally concerned and for which an evaluation instrument was developed.

The professional preparation of business teachers, as well as teachers in all other areas, has long been a matter of debate. Some people believe that teachers are born rather than made; consequently, they feel that professional courses represent a useless expenditure of time and effort. Others hold that professional education has little meaning in advance of professional employment and should be a matter of graduate study. A few people would like to stress education courses even to the extent of providing only limited attention to the general education phase of teacher education.

Most teacher education institutions, however, seek to achieve a balanced program for business teacher preparation

which includes a limited number of professional education courses. The position which a particular educator takes is largely conditioned by his concept of teaching and of the way in which learning takes place. Forkner succinctly expresses his opinion in this regard:

Only the uninformed would say that the work of the business teacher is simple and uncomplicated. Only the uninformed would say that the preparation of the teacher of business subjects is an easy task. Only the uninformed would say that he who knows his subject also knows how to teach it.¹

It was assumed at the outset in this study that a program of preparation for business teachers should be based upon a sound philosophy of professional education and that the objectives in all curriculum planning should be aimed at implementation of that philosophy. Emphasis was given to this point of view by Alexander when he stated that preparation of teachers must be based upon a philosophy of professional education that requires prospective teachers to:

1. Understand the history, the philosophy, the foundations, the role and the problems of education in the United States.
2. Practice a philosophy of education and a code of professional ethics compatible with a democratic society.
3. Understand the principles of human growth and learning and their educational implications.
4. Know the general educational theories, practices, and techniques for his teaching level; and the special theories, practices and techniques that apply to his special subject area(s).

¹Hamden L. Forkner, "Differentiation in Business Teacher Education," Curriculum Patterns in Business Education, The American Business Education Yearbook XIII (Somerville, New Jersey: Somerville Press, Inc., 1956), p. 247.

5. Have facility in applying educational theory and adapting educational practices to particular classroom situations.¹

In the basic assumptions in this study, as they are reinforced by the thinking of outstanding educators such as Forkner and Alexander, it is apparent that effort must be exerted to ensure adequate knowledge of both general theory and practice, and of specialized theory and practice in the teaching field of business. A program of business teacher preparation should provide opportunities for students to develop understanding of such things as curriculum planning, classroom teaching, human growth and development, and the materials and methods of teaching appropriate to the area of business.

Business teachers should have specific preparation for their professional responsibilities. The special insights and skills which are needed for a teacher to qualify as a professional person cover a wide range of areas. The teacher must be able to interpret for pupils the elements in the nature of our society and world society that are important for those youngsters to understand. A prospective business teacher may gain many such understandings from his general education courses, and he should gain comprehension of

¹Theodore Woodward, "Building a Positive Program for Business Teacher Education on the Undergraduate Level," The National Business Education Quarterly, XXX, No. 2 (Winter, 1961), p. 85. Quoting William M. Alexander, unpublished paper, George Peabody College for Teachers, Nashville, Tennessee.

their implications for teaching from his professional education courses.

The general professional preparation of business teachers is composed of the elements which contribute directly to the teacher's understanding and skill in guiding learning and in working with laymen and colleagues in carrying out the role of the school in society. They are the elements which aid in understanding youth, the learning process, the growth process, the over-all curriculum, the school administration, and the broader problems of the teaching profession as they relate to society and the function of the secondary school. Courses included in this phase of business teacher preparation deal with psychology of education, history and philosophy of education, curriculum, guidance, and principles and procedures of teaching in the secondary school.

The specialized professional preparation of business teachers is composed of those elements which contribute directly to the teacher's understanding and skill in guiding learning in business subjects, and in working with businessmen and colleagues in carrying out the role of the business department in the school and in the business community. They are the special elements which aid in planning the business curriculum, understanding the learning process as it applies to business skill subjects, and understanding broader problems of the business department as they relate to business.

Courses included in this phase of business teacher preparation deal with principles of business education, methods of teaching basic business subjects, methods of teaching office service and distributive subjects, and professional laboratory experiences including student teaching.

Student teaching is the culminative part of the professional phase of business teacher preparation. It provides opportunities for future teachers to crystallize their understanding of student behavior, the learning process, and methods of guiding the learning experiences of others. The experiences which the student has in student teaching bring into focus all the areas covered in the aforementioned professional educational courses, and give the prospective business teacher, under supervision, an opportunity to test his teaching ability before actually assuming full responsibility in the classroom.

Recent developments in teacher preparation include emphasis on student teaching as the major aspect of the program of preservice professional preparation. Public schools are being called upon to take greater responsibility for providing the internship, and college professors are working more closely with representatives of public schools.

Student teaching substantially aids prospective business teachers in gaining competence in the various roles of a teacher. Prickett regards student teaching as the beginning of actual professional work:

Student teaching, as the beginning of actual professional work for a young teacher, constitutes practical application of the academic work and professional study done in college. It is through student teaching that the professional preparation of teachers is made not exclusively theoretical, but instead is made in a large measure practical.¹

Prickett also refers to the student's professional preparation for and the benefit that he should derive from student teaching:

It may be assumed that an individual entering student teaching should be as adequately prepared in the theory of teaching as though he were actually entering the teaching profession. In student teaching the individual should be enabled to fuse his educational theory with academic knowledge and skills as he engages in teaching activities under the direction of a "master" teacher. As the student teacher first attempts to solve problems that confront teachers, causes pupils in his classes to achieve, and practices professional self-evaluation, he should gain the kind and degree of competence required for entrance into the profession of teaching.²

In the professional phase of business teacher preparation prior to student teaching, the prospective business teacher should gain knowledge and understanding of central principles applicable to teaching in general and, specifically, business teaching. He gains actual experience in teaching situations during student teaching. He should analyze his experiences and identify central principles among the various elements. Such reflections should enable the prospective

¹ Loy Elvin Prickett, "Evaluation of the Student Teaching Phase of Business Teacher Preparation," (unpublished Ed. D. dissertation, The University of Oklahoma, 1959), p. 8.

² Ibid., p. 17.

business teacher to evaluate his experiences in terms of the theory previously learned and to formulate his own working principles of teaching.

Lomax in delivering the 1958 Distinguished Lecture in Business Teacher Education expertly summarized the goals of the professional education phase of business teacher preparation. His statement follows:

There are at least six kinds of professional requirements which I believe every candidate for business teaching in the secondary school or college should have. There will be differences of opinion, of course, as to which ones of the six items and others really constitute minimum essentials in professional education. It is important to emphasize that this analysis is not intended to indicate six different courses.

1. School Philosophy--development of a set of "life values" or a philosophy of education which represents teaching and learning goals in keeping with American ideals of democracy. Every teacher should experience deepest concern in a continued realization and advancement of enlightenment of mind and spirit, both in individual and group behavior.

2. Teaching and Learning Process--psychology of learning and methods of teaching. It is important that principles of learning be clearly delineated and basic methods of teaching in terms of different kinds of learning outcomes be definitely defined and outlined.

3. School-Counseling or Guidance--a definitely programmed and school-wide counseling program supplements and co-ordinates the guidance phase of all good teaching. Every teacher should thoroughly understand and appreciate the cardinal characteristics of a good counseling program, and the part every teacher should have in such a program.

4. Curriculum Procedures--selection and organization of student-learning experiences, including extra-class activities. Every teacher should clearly understand and appreciate that the determination, selection, and organization of appropriate student-learning experiences constitute a basic, continuing responsibility. Student-learning materials in textbooks, workbooks, audio-visual aids, tests, and community

experiences need to be reconsidered and renewed by new materials with every new class.

5. Research Methods--measurement and evaluation of teaching and learning outcomes in a comprehensive sense in terms of well-established criteria. Every teacher should feel the primary importance of the research or appraisal process in determination of whether and how well the teaching purposes are actually achieved in the learning results of the students in and beyond the classroom.

6. Administrative and Supervisory Functions--supplementary to the teaching and learning functions of education. Every business teacher, along with all other members of the total school or college staff, should understand and appreciate how best democratic realization of all four functions is essential to highest quality of educational endeavor and attainment.¹

Summary

This chapter has been devoted to background information pertinent to evaluation in the professional phase of business teacher preparation. The information relative to professional roles, each involving numerous complex activities, in which business teachers function in the secondary school indicates the significance of the attainment of genuine teaching competence.

The preparation of secondary school business teachers should include adequate general education, specialized business education, and professional education. There is some disagreement among educators as to what constitutes adequate

¹Paul S. Lomax, "Better Programs for Business Teacher Education," Better Programs for Business Teacher Preparation, Bulletin No. 68 of the National Association for Business Teacher Education (Washington, D. C.: United Business Education Association, 1958), p. 8.

preparation in each of these broad areas; however, most educators, who plan curricula, attempt to provide balanced programs in accord with the recommendations of the National Association for Business Teacher Education.

The professional preparation of business teachers consists of numerous aspects commonly dealt with in courses involving the history and philosophy of education, educational psychology, curriculum, guidance, evaluation, principles of business education, methods of teaching business subjects, and student teaching. By means of professional education courses and student teaching experiences, the prospective business teacher gains the ability required to fulfill the six professional roles which will confront him as a full-time teacher. It is the knowledges and understandings expected of him, and which he should gain in the professional phase of his preparation, that are to be evaluated by means of the instrument developed in this research study.

CHAPTER III

THE MEASURING PROCEDURE

A comprehensive instrument for evaluating the professional phase of business teacher preparation can be developed only by means of several steps or stages which involve numerous and varied operations. Each stage in the production of a test demands careful planning and execution in terms of its direct relationship to the final form of the instrument. These statements were proved as progress was made through the successive stages required in the development and administration of the measuring instrument presented in this report.

Three major problems are involved in the development of any measuring instrument: (1) determination of what to measure, (2) determination of how to measure, and (3) construction of the measuring instrument. Discussion of aspects of each of these problems as they pertain to this study are presented in the following sections of this chapter.

Determination of What to Measure

Professional knowledge and understandings which prospective teachers of business should gain are those which will enable them to fulfill competently the various roles of

a business teacher in the secondary school, and teacher preparation institutions should design curricula accordingly. The background material developed in Chapter II substantiates the roles of the business teacher in the secondary school and points up the activities relating to competent teaching in each of these various roles. It also describes the nature of the professional phase of business teacher preparation. This material was essential to the development of the evaluative instrument for determining knowledge and understandings of professional elements of teaching possessed by prospective business teachers.

With reference to the background material presented in Chapter II, literature pertaining to the professional phase of business teacher preparation was analyzed for application to the activities associated with six roles of a business teacher in the secondary school. Knowledge and understandings of teaching which the business teacher should have were then isolated. These are the elements embodied in the test items.

Determination of How to Measure

From the outset, it was apparent that a comprehensive measuring instrument was needed. It was essential that fundamental elements, causal relationships, and extensions of applications of knowledge be measured rather than facts memorized by rote. Thus, the procedure entailed the development

of test items dealing with broad understandings rather than minute ideas.

Most of the meager number of instruments which have been developed for measuring understandings have been of a subjective nature. In this study, it appeared feasible and desirable to attempt to develop an objective type of measuring device which would lend itself to more extensive usage. It also appeared that a more comprehensive coverage of knowledge and understandings of business teaching could be achieved with an objective-type instrument. Supporting these assumptions is a statement made by Wood:

What seems to many to be the principal virtue of objective tests . . . is that they can much more adequately sample the universe of subject-matter content and of types of behavior constituting the goals of a particular unit of the curriculum. . . . In most cases, the objective test will clearly provide a distinctly more complete and representative coverage of the universe of situations that might have been sampled in the testing period.¹

Construction of the Measuring Instrument

Many types of questions were tried in an effort to ascertain the best kind for measuring professional knowledge and understanding of business teaching. The merits of the multiple-choice method were considered. However, for this unique testing of knowledge and understanding, the multiple-choice method did not seem feasible. Knowledge and

¹Dorothy Atkins Wood, Test Construction--Development and Interpretation of Achievement Tests (Columbus, Ohio: Charles E. Merrill Books, Inc., 1960), p. 22.

understandings are much more comprehensive than mere facts. Therefore, it was not possible in most cases to develop a sufficient number of desirable statements which would determine the student's knowledge and understanding of a specific principle or principles. This method would have necessitated the development of many teaching situations relating to each of the roles of the teacher and would have made the measuring instrument unduly long.

It was decided, after trying several types of questions, to use test items which could be responded to with a (T) or (F). Statements which represented sound professional principles of teaching were to be answered with a (T). Those which represented unsound practices in business teaching were to be answered with (F).

The author was fortunate in having available for pilot testing a sufficiently large number of prospective business teachers enrolled in methods of teaching business subjects during both semesters of the 1961-62 school year. Two classes were available at all times during both semesters and a third was available during April, 1962.

Considerable time was devoted to the writing of each test question. In an effort to provide for the desired interpretation and to eliminate nonfunctional portions, many of the questions were rewritten several times. Questions were constructed pertaining to each role of the business teacher in the secondary school. A test was prepared for each role

and administered to 42 students in methods classes at Murray State College, Murray, Kentucky during December, 1961. The six tests consisted of approximately 300 questions. After each test was scored, the number of correct responses to each question was counted, and undesirable questions were eliminated on the basis of difficulty. Questions which seemed to be pertinent yet were too difficult or too easy were revised.

The second testing was accomplished by administering questions applying to each role of the business teacher to 38 methods students at Murray State College in March, 1962. Techniques recommended by Garrett¹ were used for determining the difficulty index and the validity index of the items. Scores were divided into the upper 50 per cent and the lower 50 per cent as the number of students taking the test was not considered large enough to use the highest 27 per cent and the lowest 27 per cent for determining validity. Questions which did not discriminate properly were either eliminated or again revised.

A comprehensive test applying to all roles of the business teacher in the secondary school was then constructed by using items considered to have desirable discriminatory power. This test was administered to 69 prospective business teachers enrolled in methods classes, during April, 1962, at the University of Oklahoma and at Murray State College. On

¹Henry E. Garrett, Testing for Teachers (New York: American Book Company, 1959), p. 220.

the basis of the results of this testing, 119 questions were considered to be appropriate to be included in the evaluative instrument. The sequence of the items was determined, specific directions were written for taking the test, and the comprehensive instrument was duplicated. The test was then administered to the sample which formed the basis for the required statistical treatment to ensure validity and reliability of the test items and the total test. A copy of the evaluative instrument is presented in Chapter V of this research report.

During the last two weeks of May and the first week of June, 1962, the 119-item test instrument was administered to 114 prospective business teachers completing their student teaching in business subjects. The prospective business teachers to whom the test was administered were enrolled in three universities and four colleges. Schools represented were the University of Oklahoma, Norman; the University of Arkansas, Fayetteville; Eastern New Mexico University, Portales; Arizona State College, Flagstaff; Southeastern State College, Durant, Oklahoma; Eastern Kentucky State College, Richmond; and Murray State College, Murray, Kentucky.

The test was administered to students by a faculty member in the field of business education at each university or college. As the test was a power test, each student was given as much time as he needed to complete the entire test.

CHAPTER IV

PRESENTATION OF DATA

The evaluative instrument consisting of 119 items (see Chapter V) was designed for measuring the extent of knowledge and understanding of the professional elements of teaching possessed by prospective business teachers. Data collected in administering and scoring the test instrument became the basis for the statistical methods and techniques used in determining the difficulty of the test items, the validity and reliability indices of the test items, and the validity and reliability indices of the total test.

The evaluative instrument administered in this study was designed as a power test in which all of the items were to be completed by the examinees and the scores based on the number of items correctly answered. Some of the tests were returned in an incomplete form. A few of the students had been full-time teachers, as some states do not require the bachelor's degree for temporary employment. After the incomplete tests and those completed by persons with teaching experience were discarded, 100 complete and usable tests remained. Data for the analysis of the test scores were collected from these 100 usable tests.

After the tests were scored, the next step in the analysis was to determine the discriminative power of each test item. The following statements from Garrett and from Tate emphasize the importance of this step:

The two characteristics of an item which we need to know about in building a test are (1) difficulty and (2) validity, or discriminative power. These two determinants of an item's goodness are computed from the same tabulation of the test data. Computation of the difficulty and validity of an item is called item analysis.¹

In present-day testing, analytic studies of reliability and validity usually begin with the individual items in the test. This sort of study commonly is known as item analysis.²

Comprehensive worksheets were prepared to record the item scores, the total scores, the total criterion scores, the number of students answering each item correctly, the number of students answering each item incorrectly, the total score of all students, the total score of all students answering each item correctly, the total criterion score of all students, the proportion of students answering each item correctly, the proportion of students answering each item incorrectly, and the standard deviation of each test item. The cumbersome worksheets are not presented in this research report, as the addition of many worksheet pages would add little to making the findings of the research more meaningful.

¹Henry E. Garrett, Testing for Teachers (New York: The American Book Company, 1959), p. 214.

²Merle W. Tate, Statistics in Education (New York: The Macmillan Company, 1955), p. 359.

The summarization of all worksheets and computations appear as integral parts of the various formulas.

There are many techniques for finding the difficulty and validity indices of test items. The difficulty index is expressed most often as the proportion of examinees who answer the item correctly; the smaller the proportion, the more difficult the item. By far the most common index of validity for a test item is a correlation coefficient. The most accurate, and one of the most laborious, is the biserial coefficient of correlation.¹

Techniques recommended by Garrett² were utilized for determining the difficulty index of each test item. Table 1 shows the difficulty of each test item as determined by this method. Column 2 of Table 2 shows the difficulty of each item expressed as the proportion of examinees who answered the item correctly. The difference in the difficulty of an item, which can be noted by comparing the tables, can be attributed to the difference between an item analysis based on the upper 27 per cent and lower 27 per cent of scores and an item analysis based on all of the scores.

¹ J. P. Guilford, Fundamental Statistics in Psychology and Education (New York: McGraw-Hill Book Company, Inc., p. 295.

² Garrett, loc. cit., p. 220.

TABLE 1
DIFFICULTY INDEX

Item Number	Item Difficulty	Item Number	Item Difficulty	Item Number	Item Difficulty
1	.611	41	.870	81	.185
2	.463	42	.833	82	.704
3	.611	43	.444	83	.556
4	.667	44	.463	84	.667
5	.278	45	.907	85	.426
6	.963	46	.815	86	.778
7	.648	47	.204	87	.907
8	.593	48	.574	88	.741
9	.870	49	.667	89	.796
10	.778	50	.222	90	.870
11	.963	51	.352	91	.741
12	.315	52	.741	92	.519
13	.611	53	.704	93	.704
14	.667	54	.704	94	.907
15	.815	55	.870	95	.463
16	.907	56	.426	96	.611
17	.815	57	.907	97	.833
18	.463	58	.926	98	.296
19	.704	59	.870	99	.778
20	.759	60	.667	100	.852
21	.982	61	.259	101	.833
22	.944	62	.815	102	.759
23	.889	63	.944	103	.056
24	.444	64	.741	104	.389
25	.130	65	1.000	105	.907
26	.407	66	.741	106	.648
27	.741	67	.685	107	.944
28	.500	68	.926	108	.611
29	.444	69	.407	109	.889
30	.889	70	.185	110	.944
31	.389	71	.741	111	.185
32	.870	72	.963	112	.865
33	.167	73	.389	113	.704
34	.889	74	.796	114	.259
35	.926	75	.944	115	.944
36	.944	76	.722	116	.796
37	.908	77	.500	117	.704
38	.426	78	.370	118	.574
39	.907	79	.611	119	.444
40	.574	80	.685		

TABLE 2

ITEM ANALYSIS INFORMATION FOR A TEST OF UNDERSTANDINGS
OF BUSINESS TEACHING

Item Number	Proportion Answering Item Correctly	Standard Deviation of Item	Point Biserial Correlation of Item With		Reliability Index	Validity Index
			Total Test Score	Criterion Score		
	p_g	$s_g = \sqrt{p_g - p_g^2}$	r_{xg}	r_{yg}	$r_{xg} s_g$	$r_{yg} s_g$
1	.540	.498	.317	.308	.158	.153
2	.570	.495	.297	.364	.147	.180
3	.640	.480	.252	.391	.121	.188
4	.650	.477	.082	.339	.039	.162
5	.220	.414	.099	.160	.041	.066
6	.960	.196	.136	.225	.027	.044
7	.670	.470	.230	.289	.108	.136
8	.590	.492	.285	.307	.140	.151
9	.850	.357	.099	.313	.036	.112
10	.780	.414	.126	.308	.052	.128
11	.970	.171	.075	.074	.013	.013
12	.270	.444	-.094	.124	-.042	.055
13	.590	.492	.294	.440	.145	.216
14	.670	.470	.214	.271	.101	.127
15	.820	.384	.091	.296	.035	.114
16	.920	.271	.046	.099	.013	.027
17	.870	.336	.136	.239	.046	.080
18	.440	.496	-.007	.255	-.004	.127

TABLE 2--Continued

Item. Number	Proportion Answering Item Correctly	Standard Deviation of Item	Point Biserial Correlation of Item With		Reliability Index	Validity Index
			Total Test Score	Criterion Score		
	p_g	$s_g = \sqrt{p_g - p_g^2}$	r_{xg}	r_{yg}	$r_{xg}s_g$	$r_{yg}s_g$
19	.740	.439	-.040	.367	-.018	.161
20	.730	.444	.288	.391	.128	.174
21	.980	.140	.090	.173	.013	.024
22	.970	.171	.181	-.006	.031	-.001
23	.860	.347	.263	.410	.091	.142
24	.440	.496	.138	.551	.069	.274
25	.140	.347	-.036	.162	-.013	.056
26	.390	.488	.023	.256	.011	.125
27	.760	.427	.318	.200	.136	.085
28	.450	.498	.210	.333	.105	.166
29	.490	.500	-.122	.046	-.061	.023
30	.890	.313	.120	.213	.038	.067
31	.390	.488	.159	.392	.078	.191
32	.910	.286	.203	.294	.058	.084
33	.230	.421	.162	.296	.068	.124
34	.910	.286	.203	.284	.058	.081
35	.940	.237	.102	.281	.024	.067
36	.960	.196	.067	.083	.013	.016
37	.910	.286	.024	.300	.007	.066
38	.390	.488	.317	.373	.155	.182
39	.900	.300	-.067	.140	-.020	.042

TABLE 2--Continued

Item Number	Proportion Answering Item Correctly	Standard Deviation of Item	Point Biserial Correlation of Item With		Reliability Index	Validity Index
			Total Test Score	Criterion Score		
	p_g	$s_g = \sqrt{p_g - p_g^2}$	r_{xg}	r_{yg}	$r_{xg}s_g$	$r_{yg}s_g$
40	.580	.494	.074	.104	.036	.052
41	.890	.313	.178	.342	.056	.107
42	.860	.347	.032	.138	.011	.048
43	.430	.495	.258	.478	.128	.237
44	.430	.495	.121	.374	.060	.185
45	.890	.313	.144	.337	.045	.105
46	.850	.357	.024	.369	.008	.132
47	.180	.384	.169	.229	.065	.088
48	.590	.492	.380	.194	.187	.095
49	.720	.449	.268	.291	.120	.131
50	.250	.433	.001	.226	.000	.098
51	.340	.474	.319	.291	.151	.138
52	.780	.414	.254	.358	.105	.148
53	.650	.477	.133	.330	.063	.158
54	.750	.433	-.076	-.027	-.033	-.012
55	.880	.325	.084	.242	.027	.079
56	.390	.488	.280	.421	.136	.205
57	.890	.313	.110	.272	.035	.085
58	.960	.196	-.071	.100	-.014	.020
59	.870	.336	.104	.205	.035	.069
60	.710	.454	-.054	.297	-.024	.135

TABLE 2--Continued

Item Number	Proportion Answering Item Correctly	Standard Deviation of Item	Point Biserial Correlation of Item With		Reliability Index	Validity Index
			Total Test Score	Criterion Score		
	p_g	$s_g = \sqrt{p_g - p_g^2}$	r_{xg}	r_{yg}	$r_{xg}s_g$	$r_{yg}s_g$
61	.190	.392	.295	.361	.116	.142
62	.750	.433	-.009	.136	-.004	.056
63	.940	.237	.159	.183	.038	.044
64	.680	.467	.037	.092	.017	.043
65	1.000	.000	.000	.000	.000	.000
66	.700	.458	.204	.336	.094	.154
67	.730	.444	.349	.293	.155	.130
68	.890	.313	.129	.379	.041	.119
69	.360	.480	.223	.348	.107	.168
70	.150	.357	.108	.055	.038	.202
71	.760	.427	.297	.228	.127	.098
72	.980	.140	.209	.214	.029	.030
73	.400	.490	-.030	.009	-.015	.004
74	.750	.433	.161	.339	.070	.147
75	.930	.255	.137	.166	.035	.042
76	.670	.470	-.033	.188	-.016	.089
77	.450	.498	.250	.315	.124	.157
78	.390	.488	.304	.402	.149	.196
79	.650	.477	.456	.458	.217	.219
80	.770	.421	.301	.317	.127	.133
81	.210	.407	-.106	-.057	-.043	-.023

TABLE 2--Continued

Item Number	Porporation Answering Item Correctly	Standard Deviation of Item	Point Biserial Correlation of Item With		Reliability Index	Validity Index
			Total Test Score	Criterion Score		
	p_g	$s_g = \sqrt{p_g - p_g^2}$	r_{xg}	r_{yg}	$r_{xg}s_g$	$r_{yg}s_g$
82	.690	.463	.210	.406	.097	.188
83	.500	.500	.189	.249	.094	.125
84	.700	.458	.099	.383	.045	.175
85	.420	.494	.299	.382	.148	.189
86	.840	.367	.415	.335	.152	.123
87	.880	.325	.135	.151	.044	.049
88	.770	.421	.172	.393	.072	.165
89	.840	.367	.205	.104	.075	.038
90	.900	.300	.225	.232	.068	.070
91	.770	.421	.158	.111	.066	.047
92	.540	.498	.248	.248	.124	.124
93	.680	.467	.053	.401	.025	.187
94	.910	.286	-.039	.338	-.011	.097
95	.450	.498	-.032	.223	-.016	.111
96	.580	.494	.166	.390	.082	.192
97	.820	.384	.181	.293	.070	.112
98	.280	.450	.054	.146	.025	.066
99	.790	.407	.206	.338	.084	.138
100	.860	.347	.071	.167	.025	.058
101	.800	.400	-.157	.339	-.063	.136
102	.720	.449	-.024	.029	-.011	.013

TABLE 2--Continued

Item Number	Proportion Answering Item Correctly	Standard Deviation of Item	Point Biserial Correlation of Item With		Reliability Index	Validity Index
			Total Test Score	Criterion Score		
	p_g	$s_g = \sqrt{p_g - p_g^2}$	r_{xg}	r_{yg}	$r_{xg}s_g$	$r_{yg}s_g$
103	.050	.218	.036	.064	.008	.014
104	.330	.470	.220	.447	.103	.210
105	.880	.325	-.056	.112	-.018	.036
106	.570	.495	.242	.190	.120	.094
107	.970	.171	.102	.138	.017	.024
108	.690	.463	.370	.183	.171	.085
109	.920	.271	-.182	.144	-.049	.039
110	.970	.171	.323	.223	.055	.038
111	.180	.384	.004	.280	.001	.108
112	.900	.300	-.012	.103	-.004	.031
113	.690	.463	.144	.316	.067	.146
114	.240	.427	.046	.236	.020	.101
115	.940	.238	.108	.250	.026	.060
116	.760	.427	.262	.438	.112	.187
117	.680	.467	.021	.276	.010	.129
118	.620	.485	.033	-.020	.016	-.010
119	.400	.490	.062	.143	.031	.070

Techniques described by Gulliksen¹ were used in determining the validity and reliability of the test instrument. The first step in this procedure was to find the reliability index and validity index of each item. The formula used to obtain the reliability index of each item was

$$r_{xg} s_g = \frac{N \sum_{i=1}^{N_g} X_{ig} - N_g \sum_{i=1}^N X_i}{\sqrt{N \sum_{i=1}^N X_i^2 - \left(\sum_{i=1}^N X_i \right)^2}}$$

The formula used to obtain the validity index of each item by criterion was

$$r_{yg} s_g = \frac{N \sum_{i=1}^{N_g} Y_{ig} - N_g \sum_{i=1}^N Y_i}{\sqrt{N \sum_{i=1}^N Y_i^2 - \left(\sum_{i=1}^N Y_i \right)^2}}$$

¹Harold Gulliksen, Theory of Mental Tests (New York: John Wiley & Sons, Inc., 1950), p. 363-94.

where

N is the total number of persons taking the test,

N_g is the number of persons answering item g correctly,
 $(g = 1 \dots K),$

X_i is the total test score for the individual $(i = 1 \dots N),$

Y_i is the criterion score for the individual $(i = 1 \dots N),$

X_{ig} is the test score for each individual answering item g
 correctly, and

Y_{ig} is the criterion score for each individual answering item
 g correctly.

Table 2 provides a detailed analysis of each of the items. The data indicating the proportion answering each item correctly and the standard deviation of each item were taken from the worksheets. The reliability and validity indices were found by application of the formulas previously presented in this chapter. The point biserial correlation indicates the relationship between the successes and failures on a single item and the total test or the criterion score.

It should be noted that the reliability index and/or the validity index are zero or negative on some of the items. Consequently, the point biserial correlation of each of these items with the total test score and/or the criterion score are also zero or negative. Items which indicated zero or negative reliability and/or validity are 12, 18, 19, 22, 25, 29, 39, 54, 58, 60, 62, 73, 76, 81, 94, 95, 101, 102, 105, 109, 112, and 118. It should also be noted that only one

item, number 65, has a reliability index and validity index of zero, and that only two items, numbers 54, and 81, have a reliability index and validity index which are negative. The reliability index for each of the following items is negative: 12, 18, 19, 25, 29, 39, 58, 60, 62, 73, 76, 94, 95, 101, 102, 105, 109, and 112. However, the validity index for each of these items is positive. This situation indicates positive discriminatory power for each of the items in its criterion but negative discriminatory power in its relationship to the total test. Items 22 and 118 have positive reliability and negative validity.

After the reliability and validity indices for each item were computed, the instrument was then assessed for total reliability and validity. The formula used for test reliability was

$$r_{xx} = \left(\frac{K}{K - 1} \right) 1 - \left[\frac{\sum_{g=1}^K s_g^2}{\left(\sum_{g=1}^K r_{xg} s_g \right)^2} \right]$$

The formula used for test validity was

$$r_{xy} = \frac{\sum_{g=1}^K r_{yg} s_g}{\sum_{g=1}^K r_{xg} s_g}$$

where K is the number of items in the test,

s_g^2 is the variance of item g which is $p_g (1 - p_g)$,

$r_{xg} s_g$ is the item reliability index which is the point biserial item--test correlation multiplied by the standard deviation,

and

$r_{xg} s_g$ is the item validity index which is the point biserial item--criterion correlation multiplied by the item deviation.

The value for r_{xx} was found to be 0.560 which was significantly different from zero at the 5 per cent level. The value for r_{xy1} was 0.355; for r_{xy2} the value was 0.261; for r_{xy3} the value was 0.540; for r_{xy4} the value was 0.189; for r_{xy5} the value was 0.224; and for r_{xy6} the value was 0.278. All of these were significantly different from zero at the 5 per cent level.

Understandings in the six roles, or areas of educational activities, in which business teachers must function in secondary schools as identified in Chapter II were used as the six criteria--curriculum planner, guidance worker and counselor, director of learning, adviser of extra-class activities, liaison between the school and community, and member of the profession. Items 1, 4, 7, 25, 27, 28, 32, 48, 52, 55, 61, 63, 67, 73, 74, 81, 83, 84, 87, 90, 95, 99, 100, and 105 were used to evaluate the first criterion of curriculum planner. Items 3, 10, 15, 20, 21, 22, 30, 37, 38, 41, 44, 50, 54, 58, 60, 65, 72, 82, and 89 were used to evaluate the second criterion of guidance worker and counselor. Items 5, 12, 16, 18, 23, 29, 31, 33, 36, 40, 43, 47, 49, 51, 56, 62, 64, 66, 69, 70, 71, 76, 79, 91, 92, 98, 102, 103, 106, 108, 110, 111, 113, 115, 116, 118, and 119 were used to evaluate the third criterion of director of learning. Items 8, 24, 46, 75, 80, 86, 88, 94, and 101 were used to evaluate the fourth criterion of adviser of extra-class activities. Items 13, 17, 19, 35, 45, 57, 68, 77, 78, 93, and 97 were used to evaluate the fifth criterion of liaison between the school and community. And items 2, 6, 9, 11, 14, 26, 34, 39, 42, 53, 85, 96, 104, 107, 109, 112, 114, and 117 were used to evaluate the sixth criterion of member of the profession.

It is significant to note that this study constituted an exploratory approach to the measurement of understandings rather than to the measurement of factual information. It is

significant also that some portions of the evaluation instrument were more valid and reliable than other portions. All portions were sufficiently valid and reliable to indicate that with additional screening and experimental testing this kind of instrument, having high validity and reliability in its entirety, may be developed.

CHAPTER V

SUMMARY

Restatement of the Problem

The problem of this study was to develop an evaluative instrument to be used in the professional phase of business teacher preparation and to determine its validity and reliability. The instrument was designed to measure the extent of knowledge and understanding of the professional elements of teaching possessed by prospective business teachers.

The development and determination of the validity and reliability of the measuring instrument involved five significant aspects: (1) clarification of the roles fulfilled by the business teacher in the secondary school, (2) compilation of material pertinent to the professional preparation of the secondary school business teacher, (3) development of a comprehensive evaluative instrument, (4) administration of the measuring instrument to a sufficiently large sample of prospective business teachers, and (5) application of statistical procedures designed to demonstrate the validity and reliability of the instrument. It is essential to note that this study constitutes an exploratory approach to measurement

of understandings rather than to measurement of factual information.

In this study no attempt was made to evaluate the effectiveness of instruction or to evaluate any specific program of business teacher preparation. Likewise, no attempt was made to determine whether prospective teachers will make appropriate use of knowledge and understanding gained in their professional preparation.

Factors Pertinent to the Solution of the Problem

The clarification of the roles of the business teacher in the secondary school to be represented in the evaluative instrument was the first major step in its preparation.

These roles constitute the following six major categories:

- (1) curriculum planner, (2) guidance worker and counselor, (3) director of learning, (4) adviser of extra-class activities, (5) liaison between the school and community, and (6) member of the profession.

The second major step was to isolate professional knowledges and understandings which contribute to a business teacher's competence. This step was accomplished by compiling materials concerning the nature and content of the total undergraduate professional preparation of business teachers and analyzing this material in terms of its application to each of the roles fulfilled by business teachers in secondary schools.

The evaluative instrument was developed by utilizing items involving the professional elements of business teaching. A person completing the test must exercise his broad knowledge and understanding of some aspect or aspects of business teaching as he responds to individual test items.

Each of the items included in the evaluative instrument was selected after careful writing and revising. After writing questions pertaining to each of the six categories, a test was constructed for each category and administered to prospective business teachers. Undesirable questions were eliminated on the basis of difficulty, and questions which seemed pertinent but were too difficult were revised. The revised test was administered to another group of prospective business teachers, and questions which did not discriminate appropriately were either eliminated or again revised. A comprehensive test, composed of items considered to have desirable discriminatory power and including all categories, was constructed and administered to a larger group of prospective business teachers. On the basis of the results of this testing, 119 items were considered to be appropriate to be included in the evaluative instrument.

The final instrument was administered to 114 prospective business teachers completing their student teaching in business subjects. Students to whom the test was administered were enrolled in three universities and four colleges. Schools represented were The University of Oklahoma, Norman;

The University of Arkansas, Fayetteville; Eastern New Mexico University, Portales; Arizona State College, Flagstaff; Southeastern State College, Durant, Oklahoma; Eastern Kentucky State College, Richmond; Murray State College, Murray, Kentucky. The testees were selected because they had almost completed the total undergraduate professional phase of business teacher preparation and had no full-time teaching experience.

The scores of 100 usable tests constituted the data for determining the difficulty, reliability, and validity indices of items, and the reliability and validity of the total evaluative instrument presented in this chapter. Detailed statistical handling of the data indicates that the evaluative instrument is perhaps more valid and reliable than might have been anticipated for this exploratory kind of evaluative activity.

The Evaluative Instrument

The final form of the instrument designed for measuring understandings of the professional elements of business teaching as developed in this study is presented here:

AN EVALUATION OF KNOWLEDGE AND UNDERSTANDING OF BUSINESS TEACHING

Directions for Taking the Test

- Respond to each statement by circling (T) or (F).
 Circle (T) for statements which represent sound principles
 and/or practices pertinent to business teaching.
 Circle (F) for statements which represent unwise principles
 and/or practices in business teaching.

Most objectively scored evaluative instruments are designed for the testing of facts. An attempt is made in this test to deal with broad understandings relative to the professional phase of business teacher preparation. The response to a question should indicate broad understanding of principles and practices rather than knowledge and specific facts. Minor elements of truth or falsity should not determine the response to be made. If in general the statement is accurate, the (T) should be circled even though some degree of "falseness" exists. If in general the statement is inaccurate, the (F) should be circled.

Examples:

- (T) F 1. All business subjects have a great deal of value as educational and vocational guidance.
 T (F) 2. Business teachers should select students to study particular business subjects.

Test Items

- T F 1. Socio-economic backgrounds of families constitute minor factors in the decisions students reach regarding business subjects that they desire to study.
 T F 2. A business teacher is stimulated to do better teaching when he engages in professional writing.
 T F 3. The organization of guidance services for business students in secondary schools follows a standard pattern.
 T F 4. It is as essential for students preparing for stenographic positions to have on-the-job training as it is for students preparing for distributive occupations.

- T F 5. In the initial stage of learning a business skill, students should make immediate application of that skill in personal-use situations.
- T F 6. The cost of membership in business education organizations is greater than the cost of union membership for skilled and semi-skilled workers.
- T F 7. The establishment of business subject offerings is complicated by the extensive range of abilities and capacities of secondary school students.
- T F 8. It is appropriate for business teachers to influence directly the decisions made by students in an extra-class activity such as Future Business Leaders of America.
- T F 9. The gaining of on-the-job business experience during a summer constitutes evidence of a professional attitude on the part of a business teacher.
- T F 10. Business teachers and guidance counselors should be equally concerned about guidance in the secondary school.
- T F 11. Membership in the National Business Education Association is limited to business teachers in the central region of the United States.
- T F 12. Teacher-centered methods of instruction should be used extensively in the teaching of shorthand.
- T F 13. A competent business teacher can provide a business education program that is realistic and practical without enlisting the aid of businessmen.
- T F 14. Business teachers belong to and support professional organizations primarily because of the immediate personal benefits derived from such memberships.
- T F 15. The business teacher's role in guidance is not unique in any of its facets.
- T F 16. A business teacher should not accept the idea that all students in job-preparation business subjects should receive passing grades.
- T F 17. The training experiences of business teachers are such that they readily find opportunities to render service in their communities.

- T F 18. Business teachers may legitimately be criticized for making fewer library assignments for students than teachers in other subject fields.
- T F 19. A strong on-the-job training program is probably the best way to sell the business department to businessmen.
- T F 20. The business teacher should consider tests, inventories, and prognostic techniques as infallible devices for guidance.
- T F 21. Every business teacher should be informed about the private business schools serving his community.
- T F 22. The function of vocational guidance is complete when the business student makes his occupational choice.
- T F 23. Formal testing should be the principal method used for evaluation in occupational business subjects.
- T F 24. When a business teacher and his pupils embark upon a fund-raising activity the "heat" is on insofar as public and administrative notice and opinion are concerned.
- T F 25. Prevalent issues and problems in society that every person must face, understand, and attempt to solve are proper bases for the offerings in a specialized subject matter field such as business.
- T F 26. Subscriptions to some of the professional periodicals are restricted to members of a particular professional business education organization.
- T F 27. The value of business education is recognized to the extent that its offerings do not need to be "sold" to school administrators.
- T F 28. The value of bookkeeping is such that it can be justified as a required subject for practically all students in the secondary school.
- T F 29. There is a shortage of business books and related references appropriate for library reading and reference work by students in business subjects.

- T F 30. Vocational guidance for business in the secondary school should be concerned only with information pertinent to those business occupations which students enter with a high school education.
- T F 31. The National Business Entrance Tests are excellent for use in measuring the achievement of students at the end of the first year of shorthand and typewriting.
- T F 32. The ideal administrative organization is constantly aware of the practical consequences of business education.
- T F 33. High rates of speed and accuracy are obtainable in the business skills only if students develop standard techniques.
- T F 34. Chapters of Pi Omega Pi can be installed only in colleges that have recognized curriculums for preparing business teachers.
- T F 35. Learning experiences in part-time business employment tend to make more lasting impressions than learning experiences in the business classroom.
- T F 36. The psychology of skill development is a highly significant element for developing control and accuracy in typewriting or shorthand.
- T F 37. Business teachers should occasionally visit private business schools to gain information for use in guiding students concerning offerings.
- T F 38. Most high school students realize that they can obtain guidance relative to personal business affairs as well as job preparation from their business teachers.
- T F 39. Employment in addition to teaching is so common that a business teacher need not be concerned about the ethics of such a situation.
- T F 40. The teacher of typewriting must be able to demonstrate at the machine at the expert's level of ability.
- T F 41. It may be properly assumed that two students who made the same total score on an intelligence test have approximately equal ability to learn about business.

- T F 42. Membership in the National Education Association and membership in the National Business Education Association are equally essential to the business teacher.
- T F 43. Intense concern about mistakes is essential to practice in the development of a business skill.
- T F 44. The available prognostic tests for predicting student success in the study of shorthand have relatively high degrees of validity.
- T F 45. Projections of employment needs indicate a continued increasing demand for clerical workers.
- T F 46. Businessmen tend to welcome opportunities to help business students in extra-class projects.
- T F 47. Standards for student achievement in typewriting and bookkeeping classes should be the same as the standards in the office where the abilities will be utilized.
- T F 48. Adequate preparation of all business teachers in subject content and in teaching methods ensures an effective program in business.
- T F 49. The learner of a business skill should create in himself the action patterns of others who are proficient in that skill.
- T F 50. A girl planning to prepare for secretarial work by means of one or more years in college should take advanced shorthand in high school.
- T F 51. The awards provided by publishing companies for students who gain high levels of performance in business skills are given to students in most secondary schools.
- T F 52. Business teachers should actively seek the aid of businessmen in many matters relating to the planning of the business curriculum.
- T F 53. Most state departments of education provide financial support for research in business education.
- T F 54. A guiding principle in preparing students for office occupations is that the students should be "selected" in terms of interest and capacity.

- T F 55. Special education for the development of marketable business skills must be an integral and coordinated part of the secondary school curriculum.
- T F 56. Competition is such an effective motivating device that it should be utilized daily in business subjects.
- T F 57. There exists in this country a demand for men with secretarial abilities.
- T F 58. Many students finance attendance at college by means of work involving skills gained in business subjects in high school.
- T F 59. It appears likely that teaching machines will replace teachers in certain circumstances involved in instruction in business classes.
- T F 60. Guidance activities can be organized effectively to fill the gaps in the education of students resulting from special curriculums, highly specialized business instructors, and group instruction in business classes.
- T F 61. Significant changes in business education can be expected in the near future as a result of automation.
- T F 62. The development of ability in production typewriting is a matter of application of an abstract skill to a usable problem situation.
- T F 63. The American economy and social structure demand a diversified program of secondary education, including a varied offering of business subjects.
- T F 64. Overlearning of a business skill is required if forgetting of that skill is to be minimized.
- T F 65. It is the obligation of every business teacher to acquaint students with the opportunities in business education beyond secondary school.
- T F 66. Distributed practice in short intervals over a long period of time is more effective in developing skills than is concentrated practice.
- T F 67. The traditional curriculum organization for general education in the secondary school is based upon separate, independently taught, subjects.

- T F 68. Stenographic and secretarial preparation constitute the major means by which women may gain employment in the business world.
- T F 69. Secondary school students preparing for business occupations should be provided with training in the use of machines such as the automatic typewriter.
- T F 70. Adequate and appropriate instructional material is available to secondary school teachers who desire to integrate instruction in economics and money management into the content of required subjects in general education.
- T F 71. The nature of business skill subjects is such that discipline problems frequently arise.
- T F 72. Individuals with high intelligence tend to encounter difficulty in learning business skills.
- T F 73. A distinction between education for living and education for making a living is credible.
- T F 74. Adequate planning for business students who are not college bound tends to be retarded when the college-preparatory objective of the secondary school is heavily emphasized.
- T F 75. It is essential that business teachers aid and encourage students in extra-class activities without exercising direct control.
- T F 76. In a shorthand laboratory where recording equipment is utilized, the control of the learning of each individual is extensive.
- T F 77. A business teacher can expect businessmen to offer their services in promoting business education.
- T F 78. Most business departments in the larger secondary schools have developed adequate programs of on-the-job training.
- T F 79. A beginning typist should use a slow, cautious movement in developing accuracy in stroking the typewriter keys.
- T F 80. Business teachers may develop a better understanding of the characteristics of students through extra-class activities than through classwork.

- T F 81. Standardization of space requirements and facilities for business education in secondary schools is essential to good curriculum planning.
- T F 82. A centralized organization for guidance in the secondary school decreases the business teacher's responsibility for offering guidance.
- T F 83. The lighting commonly recommended for academic classrooms is also adequate for most business education laboratories.
- T F 84. The information revealed by means of follow-up studies with graduates should be the basis for changes in the business curriculum.
- T F 85. Business education teachers with a bachelor's degree can obtain membership in any business education professional organization.
- T F 86. Because there are so many extra-class activities in secondary schools, it is difficult to defend the organization of an FBLA club.
- T F 87. A secondary school subject that deals with business and economic fundamentals should be so classified as to fit into the academic requirements for graduation.
- T F 88. Future Business Leaders of America is sponsored by a professional business education organization.
- T F 89. Business students have guidance needs that are peculiar to the nature of the work they will perform on the jobs for which they are preparing.
- T F 90. Because business is a highly specialized field, offerings in it should be determined exclusively by business teachers.
- T F 91. The way a particular business skill is learned constitutes a description of the modification of human performance.
- T F 92. Instruction in business subjects is such that the checking of examination papers is largely a matter of routine.
- T F 93. The National Office Management Association encourages business teachers to become members of that organization.

- T F 94. There is conclusive evidence that student participation in extra-class activities provides opportunity to reinforce what is learned in the classroom.
- T F 95. Specialization is essential in the program of education of any person if he is to learn how to do things, to think through, and to carry his load as a competent citizen.
- T F 96. The Journal of Business Education is the house organ of a publishing company.
- T F 97. Approximately one worker out of every ten in the United States may be classified as a sales worker.
- T F 98. Development of technical business skill is indirectly related to understanding of business principles.
- T F 99. Knowledge of the development and growth of education for business is of limited value in interpreting the need for business education in today's rapidly changing business circumstances.
- T F 100. A teacher of typewriting and shorthand in the secondary school should be concerned about distributive education.
- T F 101. There is much evidence to indicate that student participation in FBLA contributes to success in later life.
- T F 102. The teacher who brings into the basic business classroom many examples of real-life applications will cause students to have only limited need for a textbook.
- T F 103. Basic-business information is essential for secondary school students because of its inherent value.
- T F 104. The members of the National Business Education Association number approximately 20,000.
- T F 105. The most significant single development in business curriculum planning in recent years is the growth in importance of business offerings as general education.

- T F 106. If students are to gain desired understandings of business, the instruction must be oriented toward the accumulation of factual information.
- T F 107. Publishers of business education literature encourage secondary school business teachers to write for publication.
- T F 108. Through the memorization of certain facts about insurance the instruction must be oriented toward the accumulation of factual information.
- T F 109. Professional business education organizations assume much of the responsibility for research in the field.
- T F 110. Diagrams of business situations or relationships are helpful in the development of mental pictures of concepts.
- T F 111. In testing knowledge of principles and understandings of business, the students should be required to demonstrate that they have accumulated pertinent facts.
- T F 112. Most conventions conducted for business teachers are designed to be more beneficial to college teachers than to secondary school teachers.
- T F 113. A person should fully comprehend the meaning of the "gross national product" in order to appropriately spend his own earnings.
- T F 114. Professional activities ensure salary and status advancement for business teachers to a greater extent than does good classroom teaching.
- T F 115. Because typewriting textbooks are well-organized and very completely planned, the teacher does not have to be concerned about lesson plans for instruction.
- T F 116. Practices in the secondary schools differ widely in regard to the teaching of economics and business principles.
- T F 117. The winning of the John Robert Gregg award in any particular year indicates that an individual is an outstanding business educator.

- T F 118. Elements of business mathematics, business English, and business law may frequently be taught best by being fused into the subject of General Business.
- T F 119. The use of published tests accompanying business textbooks tends to limit the scope of instruction.

Recommended Uses of the Evaluative Instrument

The evaluative instrument developed in this study might well be used for implementing instruction in the professional phase of business teacher preparation. The author is now using parts of the instrument, particularly the classroom instruction portion, for the development of understandings of those elements which constitute competent business teaching and for evaluation in methods of teaching business subjects. It should be helpful in creating an awareness of the kinds of information applying to all the roles in which the business teacher functions in the secondary school and of which prospective teachers should gain knowledge and understanding for initial competence as beginning teachers.

The instrument or parts of the instrument may be used as a pre-test in the specialized professional phase of business teacher preparation. It may be used in teacher preparation institutions as a diagnostic test to determine areas in which business teachers need additional preparation. Thus, it might serve to point up areas of professional preparation which should be included in a fifth year of business teacher preparation.

The instrument may serve as an achievement test to evaluate the outcomes of instruction in the professional phase of business teacher preparation. Teacher preparation institutions may find it suitable for such use. Those who take the test may find that the instrument has been instrumental in their gaining of abilities to teach for understandings.

The evaluative instrument emphasizes broad understandings as the basis for good testing. Broad understanding involves a higher level of learning than customarily results from the presentation of only factual information. Thus, a prospective business teacher subjected to this test may be challenged and encouraged to cause his students, in turn, to reach beyond the first level of learning. Certainly, it should be recognized that, from the outset, the development of this test was intended to foster and encourage additional experimentation with evaluative techniques.

Further Research Needed

The professional phase of business teacher preparation represents a fertile field for research. Effective instruments and methods of evaluation are essential if teacher preparation institutions are to prepare students to competently fulfill the various roles of business teachers in today's secondary schools. Most research studies in the area have been devoted to the development of appropriate content

for instructional purposes and to determining existing practices in providing professional preparation. No substantial experimental studies have been conducted for the purpose of determining the effectiveness of the various methods of offering this phase of the business teacher's preparation.

Additional research is needed in the development of types of instruments which will measure higher level outcomes of learning. Numerous techniques for such testing should be explored.

Conclusions

From the outset, the major desired outcome of this research investigation was an evaluative instrument which would measure understanding of the professional elements of business teaching. Because most testing for understanding has been of a subjective nature, this study constituted an exploratory attempt to develop a more objective type of measuring instrument which would extend beyond the evaluation of factual information. It appears that the major outcome of this study has been accomplished. An evaluative instrument was designed and developed and its validity and reliability determined. The validity and reliability of the instrument indicate that experimentation with this type of instrument should be continued for further improvement.

Upon completion of the extensive background study required and the work done in developing the evaluative

instrument, it was possible to synthesize major ideas to the extent of arriving at a few broad generalizations. The generalizations reached are stated in the form of conclusions here:

1. There is need for a kind of evaluation that extends beyond measurement of facts and knowledge relationships which business teachers possess. More adequate means should be found for measurement of understanding of vital business teaching principles and concepts.

2. As an exploratory effort in the measurement of understanding of the professional elements of business teaching, the evaluative instrument presented in this study indicates that appropriate criteria and satisfactory evaluative techniques can be utilized efficiently in determining the extent to which prospective teachers are competent in this important phase of their total preparation. The instrument, or another with similar purposes and effectiveness, should be utilized to a greater extent in the preparation of business teachers in the future.

3. The use made thus far of the evaluative instrument reveals that prospective business teachers experience difficulty in the formulation of broad understandings based on facts and knowledges. Responding to test items which are not factual in nature presented new problems to those persons involved in the testing. Thus, there is evidence that prospective business teachers should be afforded more

opportunities for participating in educational endeavors whereby they may gain the broader points of view. They should also be enabled to learn how to direct others better toward the higher levels of learning and to evaluate more effectively the results of such instruction.

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