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ANALYSIS OF THE WRITINGS OF PAUL S. LOMAX
WITH PARTICULAR REFERENCE TO HIS
PHILOSOPHY OF BUSINESS EDUCATION

By

RUTH C. WILLIAMS

Bachelor of Science

Southwest Missouri State Teachers College

Springfield, Missouri

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In Partial Fulfillment of the Requirements

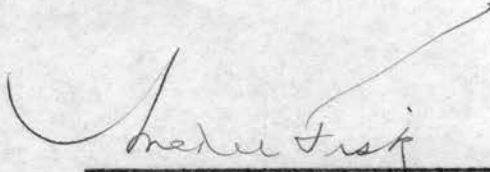
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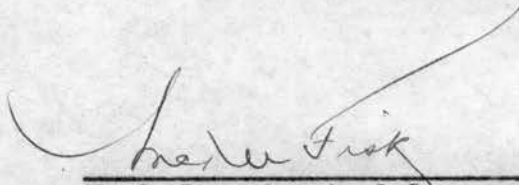
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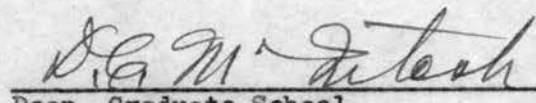
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Head, Department of Commercial Education


Dean, Graduate School

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TABLE OF CONTENTS

	Page
CHAPTER I. THE PROBLEM	1
1. Introduction	1
2. Purpose of the Study	3
3. Method and Materials	4
4. Limitations	5
5. Definitions	5
CHAPTER II. ACTIVITIES OF DR. LOMAX IN RELATION TO HIS WRITINGS	8
1. Professional Advancement	8
2. Services as Author and Editor	10
3. Other Activities	14
4. Personal Characteristics	16
CHAPTER III. COMMERCIAL TEACHING PROBLEMS	20
1. Introductory Discussion	20
2. Elementary Business Training	28
3. Business Arithmetic	37
4. Bookkeeping	43
5. Economics	47
6. Typewriting	53
7. Shorthand	57
8. Dictation	64
9. Summary	66
CHAPTER IV. CURRICULUM	69
1. A New Plan for Departments	69
2. Methods of Revision	73
3. Grade Level Considerations	75
4. Curriculum Making in Teacher Training Institutions	78
5. Summary	82

CHAPTER V. VOCATIONAL AND NON-VOCATIONAL EDUCATION	84
1. Two-fold Nature of Business Education	84
2. Influence of Methodology	87
3. Relation of Vocational Education to Other Aspects of Education	88
4. Administrative Responsibility and Administrative Problems	89
5. Distributive Occupations	94
6. Summary	94
CHAPTER VI. THE TEACHER	97
1. Responsibilities	97
2. Development of Correct Viewpoints	100
3. Preparation and Improvement	104
4. Summary	107
CHAPTER VII. BUSINESS RELATIONSHIPS	108
1. Influence Exerted by Business	108
2. Relation of Business to Business Education	111
3. Business and Scientific Method	114
4. Summary	116
CHAPTER VIII. SUMMARY AND CONCLUSIONS	117
BIBLIOGRAPHY	124

CHAPTER I

THE PROBLEM

1. Introduction

Since Dr. Paul S. Lomax has been one of the foremost leaders in business education for a number of years and because his philosophy pertaining to this field has exerted far-reaching influence,¹ it seems highly desirable that an intensive study should be made of his writings, his activities, and his background in order to determine his philosophy with respect to certain phases of commercial education.

This educator takes the position that business education is necessary because a business system is necessary in present-day society. He states that a few generations ago very little business knowledge was necessary, for the economic goods and services which were needed could be secured without spending money for them. But, that today, when money is used as a medium of exchange and values are more difficult to determine, it is essential that every individual whether a producer, an owner, or a customer should gain an understanding and appreciation of the nature and function of business as a basic social institution in the total social and economic life of our people.² In the light of this reasoning it seems that his ideas relative to business education have practical import.

¹ "Report Southern Commercial Teachers Association," American Shorthand Teacher, 11:3, November, 1930, p.78.

² "The American People Need Better Business Education," Journal of Business Education, 11:1, September, 1935, p. 7.

Inasmuch as Dr. Lomax is spoken of as an authority,³ as a well-known specialist in business and professional life,⁴ and as a scholar,⁵ an inspiring leader with a progressive purpose,⁶ and a man possessing initiative and wisdom,⁷ it would seem that organizing his philosophy into compact form is distinctly worth while.

Moreover, as one of the most prolific writers in the field of business education and as one who has had appreciable influence,⁸ it is important to delineate and analyze his point of view. One is inclined to accept his point of view for he has expressed himself as believing that any philosophy of commercial education should be based upon intelligent research rather than upon dogmatic opinion.⁹

³ M. V. Johnson, "The Relation of Principles of General Education to Principles of Commercial Education," American Shorthand Teacher, 19:2, October, 1929, p. 44.

⁴ "Convention Notes," American Shorthand Teacher, 11:6, February, 1931.

⁵ "Convention Notes," American Shorthand Teacher, 12:9, May, 1932, p. 396.

⁶ Ibid.

⁷ Edward J. McNamara, "Modern Methods of Teaching Business Subjects," Fourth Yearbook, Eastern Commercial Teachers Association, 1931, p. xi.

⁸ Foreword, "Foundations of Business Education," First Yearbook, Eastern Commercial Teachers Association, 1928, p. ii.

⁹ Ibid, p. 1.

2. Purpose of the Study

The purpose of this study is to discover, delineate and analyze the philosophy of commercial education of Paul S. Lomax in order to determine his concepts of business education with reference to methodology, to the professional preparation of the teacher of business education, to vocational and non-vocational training, and to curriculum construction, together with his views concerning the relationships existing between business and business education. A concomitant purpose of this study is to determine his ideas with reference to some problems which confront education in general.

Since education must remain an evolutionary force in a democratic society, since education is the medium by which the inherited culture of the race is transmitted,¹⁰ and since the complexity of modern, highly organized institutional life makes the capacity to think and do a necessity, it is of greatest importance that some criteria be established by which education as a contributing force, in its present status, be judged. For these same reasons, educators must determine what policies will tend to make education function more effectively in dealing with familiar problems and also in handling unforeseen situations.

Since this optimistic, far-sighted educator has rationalized his concept of certain problems pertaining to business education, and to some extent those pertaining to general education; and

¹⁰ _____, Benjamin R. Haynes, Problems of Teaching Elementary Business Training, New York: Prentice-Hall, Inc., 1929, p. 27.

has formulated his ideas of business, as a social institution which forms the groundwork of our civilization, it seems timely and advisable to attempt to analyze in a measure his writings in order to establish such a criteria and to glean his contributions toward the formation of definite policies for business education.

3. Method and Materials

The library method has been employed in preparing this study.

The materials used include articles by Dr. Lomax which have appeared in professional magazines, books written by him dealing with problems pertaining to particular subjects in commercial education, and printed addresses which have been given before business education groups. One fruitful source of material was found in his editorial comment which appeared monthly for many years in the Journal of Business Education. Another excellent source was found in his editorials in the Eastern Commercial Teachers Association Yearbooks. Lecture notes taken during the summer session, 1938, at the Oklahoma Agricultural and Mechanical College, were also used. Numerous comments by his fellow educators provided an illuminating source of reference regarding the personal and professional qualities of this leader in business education.

Because Dr. Lomax is not only a versatile writer but also a prolific writer, this study cannot encompass the breadth and depth of his writing. However, a considerable portion of it has been

organized under chapter heads as given in the table of contents.

4. Limitations

No particular limitations are set regarding the treatment of problems as to definite school levels. However, more emphasis will be given to those of secondary school education, for as shown later in this study the major contribution of vocational education, including business education, will continue to be below the college level for a considerable number of years to come. This is due to several reasons, the main one being the discrepancy between the high school and college enrollment.

5. Definitions

There are times when definitions serve as guides to concise thinking and tend to clarify subject matter. For these reasons, Dr. Lomax's definitions of some terms relating to education are cited.

In attempting to give rather concise definitions of education and business he points out the difficulty of doing so because the term represents very broad generalization of viewpoints acquired from wide and varied human experience. In the definitions which follow he gives not the whole meaning that could be applied to these words, but rather emphasizes what seems to him the characteristic meaning of each term which is of outstanding significance to a sound philosophy of business education.¹¹

¹¹ "What Is a Sound Philosophy of Business Education," The Business Education World, 16:3, November, 1935, p. 197.

He says:

Education is a process of continuous growth in the power of satisfactory adjustment of the individual and of groups of individuals, to desirable life experiences in ever endeavoring to increase human welfare and happiness.¹²

He thinks of business as a basic, social and economic institution "closely and intricately tied up with our whole modern life."¹³

His definition of business education is a logical outgrowth of the concepts given above. He says:

Business education, in one sense, is a point of view in a functional evaluation of the social institution of business in its life relationships to the other social institutions.¹⁴

In this connection it should be noted that Dr. Lomax always uses the term business education, although commercial education is the older term and the two terms are generally used interchangeably.

Other definitions are directly quoted:

By subject matter we mean that part of past and present human experiences which will best prepare individuals, consistent with social welfare, to live life nobly as they find

¹² Ibid, p. 197.

¹³ "The Opportunities of Business Education," Journal of the National Education Association, 23:4, April, 1934, p. 125.

¹⁴ Editor's Foreword, "Nature of Business as a Highest Cause," Eastern Commercial Teachers Association, Yearbook, p. 6.

it and seek to control and improve it.¹⁵

The process of learning is a process of reacting to things observed, to things heard, to things read, to all forms of activity.¹⁶

Skills are ready-made responses or fixed ways of behaving in particular situations.¹⁷

By the term subject or course of study we mean the kind of quantity and organization of subject matter in any unit of instruction that is offered within a given period of time, as the second year of bookkeeping.¹⁸

We may define personality as the sum total of the reactions of any individual--physical, mental, and emotional.¹⁹

Character refers to the most basic traits, such as integrity, loyalty, industriousness.²⁰

A trait may be considered as a unit type of reaction.²¹

By the term curriculum we mean a group of subjects or courses of study, representative of all major objectives of education, including that of vocation, and therefore representative of a complete and well-balanced education, which a student may pursue for an extended length of time and quality for a certificate, diploma or degree, as the case may be.²²

¹⁵ Commercial Teaching Problems, New York: Prentice-Hall, Inc., 1929, p. 73.

¹⁶ Ibid, p. 31.

¹⁷ Ibid, p. 156.

¹⁸ _____, Benjamin R. Haynes, Problems of Teaching Elementary Business Training, New York: Prentice-Hall, Inc., 1929, p. 2.

¹⁹ _____, Helen Reynolds and Margaret H. Ely, Problems of Teaching Typewriting, New York: Prentice-Hall, Inc., 1935, p. 32.

²⁰ Ibid.

²¹ Ibid.

²² _____, Benjamin R. Haynes, Problems of Teaching Elementary Business Training, New York: Prentice-Hall, Inc., 1929, p. 2.

CHAPTER II

ACTIVITIES OF DR. LOMAX IN RELATION TO HIS WRITINGS

1. Professional Advancement

Because ideas gather vitality and significance in relation to the achievements, personality, and character of the person expressing them, something of the activity, the life purpose, and the personality of Dr. Paul S. Lomax is presented in this chapter of this study which is devoted to an analysis of his writings.

There are so many interesting sidelights relating to the professional progress that Dr. Lomax has made, that it is not possible to arrange in chronological sequence the various positions held, the honors conferred, and the various achievements effected. One of the delightful things to be noted is the enthusiasm with which these honors and achievements are reported in the professional magazines by this great leader's contemporaries, friends, and admirers. The following excerpt serves as an example:

A few months ago we reported the step upward in educational attainment, as measured by university titles, of Mr. Paul S. Lomax, from assistant to associate professor at New York University. News has just reached us that our good friend has now received his Ph. D. so it will be our good pleasure from now on to address him with the dignified title of Doctor. The work of Dr. Lomax in the field of education is well known. He has been a leader from the word go. Coming to New York University in 1924, Dr. Lomax has been successful in organizing a four-year commercial teacher-training course, leading to the degree of B. S. in Education, with additional work offered leading to A. M. and Ph. D. degrees. Already this course has become one of the largest and most popular in the School of Education,

drawing students from every section of the country. Dr. Lomax's contributions to the magazines of commercial education and his addresses before commercial teachers' conventions from coast to coast are indications of the clearness of his thought, the forcefulness of his expression and the persuasiveness of his manner. Upon the distinction which has been bestowed upon him we extend hearty congratulations.¹

Such whole-hearted pleasure in the honor bestowed upon another speaks eloquently of the inherent qualities of leadership, personal charm, and sustained scholarship of the person receiving such favorable comment.

That Dr. Lomax's friends and admirers are scattered rather widely over the United States is evidenced in another of these biographical notes:

Western, as well as New York teachers, will be interested in the appointment of Mr. Paul S. Lomax to the Vocational Education Division of the New York State Education Department at Albany. Mr. Lomax has been an enthusiastic teacher of Gregg Shorthand and other commercial work for a number of years. He served with the Rehabilitation Division of the Federal Board and will now work under Director A. L. Wilson in developing the business training courses in the continuation schools of New York State. Prior to his connection with the Federal Board, Mr. Lomax was a Normal School instructor in Missouri and New Mexico.²

In each of these notes one finds an enumeration of steps showing growth in professional status. That each succeeding step follows quickly upon the other attests the man's ability.

In another passage, in which there is further enumeration of the steps in this upward climb, there is mention made (note the underscoring) of one step which belies the old indictment that

¹ "School News and Personal Notes," American Shorthand Teacher, 7:8, April, 1927, p. 254.

² "Personal Notes About Our Fellow Teachers," American Shorthand Teacher, 1:5, January, 1921, p. 147.

"those who can, do; those who can't, teach:"

Mr. Paul S. Lomax, the present incumbent of the office of president of the New York City Gregg Shorthand Teachers Association, first taught commercial subjects in Hannibal, Missouri, Secretary to the president of the University of Missouri, Specialist in Commercial Education for the State of New York, and later Director of Commercial Education for the City Schools of Trenton, New Jersey, are the steps through which Mr. Lomax progressed to his present position with the New York University, in its Department of Commerce. Last year he was Assistant Professor and he has now taken another step forward in educational attainment and has been designated Associate Professor. Our congratulations to him.³

In order to be secretary to the president of the University of Missouri this, then young man, had to prove that he was highly proficient in the technical skills required of such a position. He still possesses this mastery of the skills necessary to the secretary. (Witness the speed with which he writes beautiful shorthand on the blackboard.) Yet, despite the mastery of these skills--this ability to do--Paul S. Lomax disproved the old statement and became one of the really great teachers of business education.

2. Services as Author and Editor

One of the greatest services that Dr. Lomax has rendered commercial education has been through his work as author and editor:⁴

He initiated the yearbook program of the Eastern Commercial Teachers Association and served as editor of the 1928, 1929, and 1930 yearbooks; in 1932 he also initiated the

³ "Gregg Shorthand Association President Honored," American Shorthand Teacher, 7:1, September, 1926, p. 12.

⁴ "Eastern Commercial Teachers Association to Honor Former President," American Shorthand Teacher, 13:8, April, 1933, p. 321.

National Business Education Quarterly of the National Education Association Department of Business Education. He is the author and joint-author of a number of books, including Commercial Teaching Problems, Problems of Teaching Book-keeping, (With Agnew), Problems of Teaching Elementary Business Training, (With Haynes), Problems of Teaching Economics, (With Tonne), Problems of Teaching Shorthand, (With Shene and Walsh), and a chapter in Teaching Business Subjects in the Secondary School, (Edited by Jones). He has been editor of the Journal of Business Education since 1929, and is a contributing editor of Junior-Senior High School Clearing House and of the Journal of Educational Sociology. He has contributed many articles to other magazines, and has been a speaker on the programs of numerous conventions.⁵

Since merely listing his services as editor of the Eastern Commercial Teachers Association Yearbooks and the Journal of Business Education seems hardly adequate in the light of the importance of this work as viewed by other leaders in education, a brief story of this service is given.

The Executive Board of the Eastern Commercial Teachers Association at its 1927 meeting in New York City adopted a three-year program of great importance to commercial educators. This program called for the preparation and printing of three yearbooks as the outgrowth of the 1928, 1929, and 1930, annual conventions. Dr. Lomax was chosen as editor of the series.⁶

The editing of this series was not an easy task. To complete such an undertaking one had to possess not only vision and ability but patience and unlimited perseverance.⁷

⁵ Ibid.

⁶ "Announcement of 1930 Yearbook Eastern Commercial Teachers Association," American Shorthand Teacher, 10:7, March, 1930, p. 258.

⁷ Ibid.

President Percy spoke of the association yearbooks and the service rendered by Dr. Lomax as follows:

Perhaps the most constructive effort undertaken by our Association (Eastern Commercial Teachers Association) or by any organization of its kind, has been the establishment of a definite yearbook program This program which was begun in 1929 owes its origin and initial impulse to the inspiring leadership and progressive purpose of Dr. Paul S. Lomax. These books are a real contribution to the literature of commercial education, emphasizing as they do the application of the fundamental principles of education to the enlarged purpose of commercial education crystalizing the objectives of our annual deliberations and making available for teachers a record of annual accomplishment and progressive achievement in the field of commercial education.⁸

One might well believe, in reading this comment, that Paul S. Lomax surely took with him to the East some of the pioneering spirit of the West, for, while the Eastern Commercial Teachers Association had been organized about 1900, for as indicated above, it remained for this energetic, far-seeing educator to bring it into its greater sphere of influence.

Very soon after the Journal of Business Education was launched, Dr. Lomax accepted the editorship of the magazine. In his first editorial he expressed his views regarding the purpose and function of the publication. He said in part:

I have long felt the need in business education of a journal which would serve as a forum for the definition, discussion and possible solutions of pressing problems of fundamental consequence, not only to ourselves but to the entire field of American education. We need to view business education as a vast related educational enterprise whose work is carried on in all types of schools In order to unify the work and promote it on a really cooperative scale and to bring about the professionalization of business education, as it is thought of in

⁸ "Report, Thirty-fourth Annual Convention of the Eastern Commercial Teachers Association," American Shorthand Teacher, 12:9, May, 1932, p. 396.

connection with other fields of education, the divergent views of the leaders of business education in this vast array of institutions will need to be brought into harmony.⁹

Dr. Lomax recognized the fact that the publishers had rendered, and would continue to render, excellent service in the interest of business education; yet he was convinced an independent journal was needed as a medium through which might be developed and furthered the professionalization of business education as an important field of educational endeavor.¹⁰

Because he hoped to see some of these things achieved, and because he hoped to bring to business education, through the experience of the best leadership of American business education, an educational program of first importance to business leaders, supervisors and administrators, he accepted the position as editor.¹¹

In his concluding paragraph of that first editorial he said:

We earnestly seek your cooperation, enthusiasm, best thought and effort as professional colleagues in helping to contribute, through the Journal to the substantial development of business education as one of the most potential and promising divisions of American secondary and higher education.¹²

At the end of a ten year period, Dr. Lomax resigned from his position as editor of the Journal of Business Education. In commenting upon his leaving this post, Robert C. Trethaway reviewed that first editorial and pointed out that under Dr. Lomax's editorial management, the Journal of Business Education had, in

⁹ "Editorial," Journal of Business Education, 1:8, p. 7.

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.

truth, served all the purposes as set forth ten years previously; he concluded his article by saying of Dr. Lomax:

We have found him always eager to uphold the highest ideal of the teaching profession and to make the Journal of Business Education serve the best interests of business education. He has been a wise counselor and a good friend. If the Journal of Business Education deserves the many good things which our friends have said about the publication during the past ten years, it is largely due to the enthusiasm, vision, and ability of Dr. Lomax.¹³

Through this statement of purpose and of its fulfillment something of the character of the man, Lomax, is shown. This long period of service required, in addition to those qualities set forth by Mr. Trethaway, persistence, tolerance, and a spirit of friendly cooperation that engendered the same spirit in others, thus making possible a service which has been of great import in business education.

The above quotations reveal, not only the sincere admiration of Dr. Lomax's fellow educators and their cause for it, but something of the personal philosophy of the man who desires, seemingly, to have the combined thought and wisdom of all of those, who have been designated as leaders, brought within the reach of all who are interested in gaining a clearer understanding of the problems facing commercial education, and of the constructive ideas advanced, not by himself alone, but by all those who through research or observation, have something to contribute.

3. Other Activities

In addition to his services as author and editor, he has been active in the work of numerous professional organizations. Other

¹³ "Paul S. Lomax. An Appreciation," Robert C. Trethaway, Journal of Business Education, 13:10, June, 1938, p. 7.

than those mentioned previously, he has been president of the Department of Business Education of the National Education Association, president of the National Association of Commercial Teacher-Training Institutions, president of the New York Gregg Teachers Association, president of the Eastern Commercial Teachers Association, and president of the National Council of Business Education. He has served as a member of the executive committee of the National Association of Commercial Teacher-Training Institutions, and as chairman of this association's Research Commission on the Education of Business Teachers.¹⁴ He is a member of Phi Delta Kappa, national honorary undergraduate business education fraternity,¹⁵ and he was largely responsible for bringing about the organization of Delta Pi Epsilon, national honorary graduate fraternity in business education.¹⁶

His present position is as Professor of Education and Chairman of the Department of Business Education of the New York University School of Education, New York City. The business teacher program of the School of Education which was organized under the immediate direction of Dr. Lomax continues to be his major professional responsibility.¹⁷

Tangible evidence of the high esteem accorded Dr. Lomax, as a result of the service he has rendered through these activities, is shown in his being awarded the Eastern Commercial Teachers

¹⁴ (Compiled) Who's Who in Education, New York: Robert C. Cook Company, 5:468, 1933-1934.

¹⁵ Ibid.

¹⁶ Handbook, Alpha Chapter, Delta Pi Epsilon Fraternity.

¹⁷ "Eastern Commercial Teachers Association to Honor Former President," American Shorthand Teacher, 13:8, April, 1933, p. 321.

Association medal. The Eastern Commercial Teachers Association brings the importance of business education to the attention of the nation by honoring certain members of its profession who have made outstanding contributions. The first commercial educator to be thus recognized was Dr. John Robert Gregg, in 1931. Dr. Paul S. Lomax was the guest of honor at the Eastern Commercial Teachers Association banquet in 1933, and was awarded the second medal to be presented by that Association.¹⁸

4. Personal Characteristics

Thus far the discussion has been concerned with the activities of Paul S. Lomax as university professor, author, and editor. However, there is another part of the story that is equally important--that pertaining to his personal characteristics.

Dr. Lomax is a proponent of integration. While some educators believe that it is subject matter that is integrated, in Dr. Lomax's philosophy it is people who are integrated. To him a well integrated person is one who is tolerant of the opinion of others, has spiritual depth, has a cultivated intellect, takes part in activities not within his immediate vocation, lives richly emotionally, and makes friends because of an inherent quality of friendliness.¹⁹

In analyzing the character, the personality, the activities, the attainment, the wealth of friendship that is his, it is apparent that Paul S. Lomax, himself, is indeed a finely integrated person.

¹⁸ "Eastern Commercial Teachers Association to Honor Former President," American Shorthand Teacher, 13:8, April, 1933, p. 321.

¹⁹ Lecture Notes, Summer Session, Oklahoma Agricultural and Mechanical College, 1938.

Throughout his writings appreciative mention of the work of other educators is continually made.²⁰

While he faces facts which are not always encouraging, yet, he retains an optimistic point of view.²¹

A well integrated person finds satisfaction in his work and appreciates the values in it. The quotation which follows gives an insight into Paul S. Lomax's estimate of business education:

Such a great cause as that of business education, concerned as it is, directly or indirectly with all the realities of life in a cooperative upbuilding of an enduring and glorious American civilization, should attract an increasingly large number of promising young men and women of highest intellectual and spiritual worth who will dedicate their lives to a professional service of deepest devotion.²²

His writings reflect not only a sound, vigorous philosophy of business education but also a delicacy of feeling and expression. In a Christmas editorial, "A Master Life Lives in the World,"²³ and in an Easter editorial, "What Easter Means to Me,"²⁴ one finds rare beauty of perception and expression. A few passages illustrate this beauty and likewise point to the integration of Dr. Lomax:

²⁰ Editorial Comment, Journal of Business Education, 1929-1938.

²¹ "The Economic-Social Crisis and the Public High School Teacher," Junior-Senior High School Clearing House, 7:5, p. 289, and Editorial, Journal of Business Education, 11:4, p. 7, December, 1935, and Editorial, Journal of Business Education, 8:1, p. 7, September, 1932.

²² First Yearbook, Eastern Commercial Teachers Association, Foundation of Business Education, 1928.

²³ "A Master Life Lives in the World," Journal of Business Education, 11:4, December, 1935, p. 7.

²⁴ "What Easter Means to Me," Journal of Business Education, 13:9, April, 1938, p. 7.

This is the beautiful season of Christmas when the human heart tends to rise to a new level of life in relation to God and to mankind, so richly manifested in that Master Life who came into a dreary Roman ruled world and brought hope and cheer to teeming millions of people. With and in His Life a new dignity was attached to each human life, whatever the circumstances of existence. . . . What an amazing transformation from those days of long ago when the prince of peace came into the world to dignify human life in the likeness of God! Indeed, every man, woman, and child is worth educating for an increasingly better and better realization of a Kingdom of God and a true Brotherhood of Man on Earth.²⁵

In the Easter editorial there is an equal charm of thought and feeling:

The resurrection of Jesus Christ, which we solemnly commemorate at Easter Time, naturally has many meanings to different persons, and even to the same person, according to the changing circumstances of life as it unfolds alike with bitter and joyful experiences. However, to me the supreme meaning of Easter is the matchless triumph of immortal Godliness over mortal worldliness. It is the restoration of the Godship of Christ from the agonizing Cross of man-made sin, to which indescribable torture He willingly submitted to show human beings the sacrificial way to eternal values Life in its living year after year, from Eastertime to Eastertime, is a series of restorations of the eternal spiritual values--of resurrections from the tombs of human despair of individuals and nations alike As long as we sincerely strive to live in the Spirit of God, as victoriously achieved by Jesus, we with Him can never lose faith in God and in our individual selves.²⁶

And finally, a well integrated person is free of egotism.

Despite the fact that Dr. Lomax has received many honors and has been acclaimed by his fellows as a most worthy leader, he still retains the truest ear-marks of the scholar--the widened horizon which brings the realization that learning already acquired is

²⁵ "A Master Life Lives in the World," Journal of Business Education, 11:4, p. 7, December, 1935.

²⁶ "What Easter Means to Me," Journal of Business Education, 12:8, p. 7, April, 1938.

only a small part of all that can be acquired. He deprecates his own learning as he says:

Among the multitudes who stand in need of education, I include myself as one of the most needy. Never do I plead for education without hearing a voice which says to me 'Thou art the man.'²⁷

The vast amount of writing that Paul Lomax has done, the number of important positions he has held in the leading professional educational associations and organizations, together with his work as lecturer, editor, and professor of education, would indicate that he has made his main contributions to education. It is surprising, therefore, in the light of these many achievements to learn that he is now under fifty years of age and probably at the threshold of his greatest contribution to education in general and to business education in particular.²⁸

The chapter which follows is an analysis of Dr. Lomax's views regarding problems found in the teaching of elementary business training, business arithmetic, economics, shorthand, typewriting, dictation, and bookkeeping. The chapter is necessarily rather long for an attempt has been made to extract the essence of approximately sixteen hundred pages of concentrated material.

²⁷ "The Economic-Social Crises and the Public High School Teacher," Junior-Senior High School Clearing House, Vol. 7, 1933, p. 289.

²⁸ (Compiled) Who's Who in Education, New York: Robert C. Cook Co., Vol. 5, 1933-1934, p. 468.

CHAPTER III

COMMERCIAL TEACHING PROBLEMS

1. Introductory Discussion

Dr. Lomax has made notable contributions to business education in many ways--through his constructive, frontier concepts which mark him as a leader in establishing broad general ideas of national professional import within the leading business education organizations, in teacher training, supervision, curriculum making, and business relationships. However, in another field he has made equally noteworthy contributions, and that is in his detailed treatment of commercial teaching problems as found in the various subjects in the commercial curriculum.

In determining his methods and in selecting his materials, the teacher sees certain problems confronting him--problems having to do with aims, functions, subject matter, procedures, character trait formation, measurement, and related problems.

The material which follows summarizes Lomax's ideas pertaining to these topics.

Aims of Commercial Teaching. Aims are immediate goals of education and should be thought of and expressed in terms of accomplishment or the use to which the things to be learned are put.¹ Specific statements of aims tend to make it possible to select with greater exactness the teaching materials needed to realize the aims.

¹ Commercial Teaching Problems, New York: Prentice-Hall, Inc., 1928, pp. 38-41.

These aims may be thought of as having to do with knowledge, habits, ideals, and powers and should be presented from the student's point of view.²

Functions of Commercial Teaching. If there is to be a successful realization of commercial aims and objectives as conceived in relation to the major objectives of education, then there must be developed in the student the ability to adapt school learning to life situations; to unify and balance this learning and to relate it to his problem-solving; to differentiate between things as pertinent or irrelevant to the solution of a problem and to make proper selection pertaining thereto; to wisely direct his own learning, thus becoming independent of the teacher; to appreciate and understand what he is studying through participation in actual life situations; to make use of his present education as a means to further his training on higher levels.³

Problems of Subject-Matter. Dr. Lomax classifies the problems of subject matter as those of activity analysis and of subject matter selection and organization. He proposes that the subject matter of business education should be selected out of business or occupational activity. This occupational analysis method, Lomax points out, is being used increasingly by American educators as a means of evolving an educational program of "highest good in a democratic society."⁴ However this practical educator

² Commercial Teaching Problems, Prentice-Hall, Inc., New York, 1928, pp. 38-53.

³ Commercial Teaching Problems, Prentice-Hall, Inc., New York, pp. 56-68.

⁴ *Ibid*, p. 75.

points out some of the shortcomings of the job analysis procedure to those who might be overly enthusiastic about its value. This method, he says, shows lack of refinement as to process, involves the question of transfer of training, including, as this must, the human variant; reveals what men actually do at work but not what men should do; does not integrate an individual as to character traits so that he may be able to control and solve the problems of new situations.

A After the job analysis data have been collected and interpreted in terms of duty analysis and character trait analysis, they need to be systematically converted into classroom teaching material by commercial teachers trained in the scientific method.⁵

Principles of Learning. Important principles of learning according to Dr. Lomax consist, at least in part, of the following:

1. Learning is the result of practice.
2. The best practice is precise practice.
3. The "precise" practice for initial learning of any subject should be simplified practice within the worthy life experiences of the student.
4. The student should learn "precise" practice at the best rate consistent with best quality.
5. The student should tend to learn a subject in large rather than small divisions.
6. Learning takes place in accordance with certain "Laws," as the laws of readiness, exercise, effect, et cetera.
7. The student should acquire study habits that reinforce learning.⁶

Procedures in Commercial Teaching. Dr. Lomax states that there are at least "three types of teaching procedure to be used in the

⁵ Commercial Teaching Problems, New York: Prentice-Hall, Inc., pp. 73-98.

⁶ Commercial Teaching Problems, New York: Prentice-Hall, Inc., pp. 109ff.

preparation of a student for participation in comprehensive life situations.⁷ These are: reflective-thinking procedure, skill-building procedure, character-building procedure.

He analyzes the reflective thinking process into the following steps:

1. Experiencing of a situation, actually or vicariously in which a problem is present.
2. Consciousness of a real problem, or "felt-difficulty," in the situation.
3. Exact and concise definition of the problem.
4. Ascertainment and discussion of the pertinent subject matter that is needed to solve the problem.
5. Analysis of problem into its elements or component parts.
6. Determination and discussion of the possible one or more solutions or hypotheses of the problem.
7. Try-out of what seems the most plausible solution.
8. Verification of the solution to see if it works.
9. If the solution is not practicable, then try out other possible solutions until one is found that is satisfactory.⁸

Dr. Lomax believes an analysis of this type should help a teacher to guide the learning of the student more intelligently in his solution of business problems. He points out that these nine steps do not always follow in the same order and that all the steps are not necessarily of equal significance.

Lomax emphasizes the fact that in every commercial subject both skill-building and reflective-thinking procedures are involved even though the relative use of the procedures varies in different subjects.

⁷ Commercial Teaching Problems, New York: Prentice-Hall, Inc., p. 142.

⁸ *Ibid*, p. 143.

He analyzes the skill-building procedure in the following steps:

1. The situation in which the learner experiences a need to acquire a particular skill in connection with a particular association.
2. The teacher sets a model of the skill to be learned.
3. The student imitates the model.
4. The student criticizes his own product by checking with the model, having certain considerations in mind.
5. The student drills to fix in his own learning-machinery or nervous system a correct and automatic response.
6. The student puts the new skill back into the field of association or practical use.
7. The teacher gives periodic tests to determine whether the student is keeping the skill at a satisfactory standard of use.⁹

For an analysis of the character-building procedure Dr. Lomax cites Charters', The Teaching of Ideals, as a notable contribution to an understanding of the trilogy--reflective-thinking procedure, skill-building procedure, and character-building procedure.

Measurement of Commercial Teaching Results. Dr. Lomax states that since there tends to be a wide variation of school marks or grades due to subjective standards, educational tests having objective standards have come to be desirable media for the evaluation of teaching results. He says:

The measurement of teaching results tends to become scientific when the results are evaluated, as far as possible, in terms of objective facts, carefully scrutinized, rather than of subjective opinions, dogmatically maintained.¹⁰

⁹ Commercial Teaching Problems, New York: Prentice-Hall, Inc., p. 158.

¹⁰ Commercial Teaching Problems, New York: Prentice-Hall, Inc., p. 170.

Lomax finds that the educational test enables the student to compare his achievement with that of other members of the class, and with his own previous record; provides a means of diagnosis for use in remedial work; sets up standards of student achievements; provides data for determining promotion; establishes admission to high school or college; measures the efficiency of the teacher's instruction; provides data for guidance; and establishes a basis for checking the comparative efficiency of one school organization with other school organizations.¹¹

While Dr. Lomax approves of the use of educational or achievement tests, he would have commercial teachers recognize the limitations of such a testing program. He lists the following limitations:

1. Educational tests may not measure all outcomes of teaching or all outcomes of student learning. Learning is highly complex. It is made up, in each individual of a certain combination or of a blending of information, habits, ideals and powers. The tests are valid only for the learning outcomes that the tests really measure.
2. Educational tests which deal with the measurement only of classroom teaching or learning results may not measure the practical value of classroom learning results outside of the classroom
3. Educational tests that measure classroom learning results in any commercial subject at best usually measure only a small portion of the total learning results. It is important to determine whether the small portion is truly a representative sample of the total learning results.
4. Teachers should recognize the principle that no one norm of performance can be set up which will have universal validity for all pupils or all schools,¹² because of individual differences.¹³

¹¹ Commercial Teaching Problems, New York: Prentice-Hall, Inc., pp. 171-172.

¹² G. M. Ruch and G. D. Stoddard, Tests and Measurements in High School Instruction, p. 17.

¹³ Commercial Teaching Problems, New York: Prentice-Hall, Inc., p. 174.

Lomax believes that the commercial teacher should have certain criteria by which to judge the scientific and practical worth of educational tests. One should find if a test actually measures what it is intended to measure, find whether or not its reliability coefficients have been statistically determined, determine whether the test can be readily administered and easily understood, see if purely objective scoring suffices, find if all the norms are reliable, and determine the comprehensiveness of its diagnostic qualities.¹⁴

As to advantages, Dr. Lomax states that these tests eliminate personal opinion; make possible a more extensive sampling; compel the student to give brief, definite answers; provide for quick, accurate grading, thus saving time for more careful preparation of the tests.

As to disadvantages Dr. Lomax points out that these tests tend to test isolated details of learning rather than the organization and functional use of these details, to place a premium on pure memory, and to give too much emphasis to numerous minor details rather than on a relatively few important and inclusive phases.

Because of the advantages and limitation inherent in the educational or achievement test and in the written examination or essay type, Dr. Lomax believes that better measurement of the learning results can be secured through the use of both types.¹⁵

¹⁴ Commercial Teaching Problems, New York: Prentice-Hall, Inc., pp. 174-177.

¹⁵ Ibid, pp. 169-177.

Application of this Philosophy to Specific Subject Matter.

Dr. Lomax and those collaborating with him have applied the above philosophy very systematically to the teaching of several business subjects through the writing of the following books:

Problems of Teaching Elementary Business Training, Paul S. Lomax with Benjamin R. Haynes.

Problems of Teaching Shorthand, Paul S. Lomax with John V. Walsh.

Problems of Teaching Business Arithmetic, Paul S. Lomax with John J. W. Neuner.

Problems of Teaching Bookkeeping, Paul S. Lomax with Peter L. Agnew.

Problems of Teaching Economics, Paul S. Lomax with Herbert Arthur Tonne.

These books show in detail how the functions, aims, problems of subject matter, principles of reflective-thinking and skill-building procedures, character trait formation, methodology, and measurement can be brought to conform to established principles found in educational sociology, in educational psychology, and in the philosophy of education. A summary of their studies follows.

In following Dr. Lomax's treatment of commercial teaching problems as found in elementary business training, business arithmetic, typewriting, shorthand, bookkeeping and dictation, an attempt has been made to choose from each study those topics which are particularly significant to that particular subject; the confines of this study do not permit full study of each problem of each subject.

Since the course in elementary business training is yet in a somewhat nebulous state and because the treatment of the subject by Lomax and Haynes sheds much light on the problems connected with it, considerable space in the study has been allotted to their constructive work in this particular field.

2. Elementary Business Training

In Problems of Teaching Elementary Business Training is found practical teaching helps and the guidance in the sound educational development of the subject.

At the time the book was written, 1929, elementary business training was a relatively new subject which owed its popularity and importance somewhat to the growth of the junior high school movement. But because Dr. Lomax and Dr. Haynes felt that the subject had so many potential possibilities for the entire field of secondary education, and for all adolescent youth, they attempted to solve some of the problems connected with the subject.

One function of teaching elementary business training lies in stimulating and directing students in adapting the information gained in the class room to actual situations; as, for example, utilizing arithmetic in learning payroll practices. This embodies the adaptive function. Elementary business training of the student is made truly useful only when his specialized instruction is wisely unified with other subjects into a well-balanced education. The writing of a letter is an example of the unifying function.

This unifying function should be supplemented by the differentiating function; an example of the latter in elementary

business training would be the writing of a ten-word telegram--differentiating the essential and non-essential points.

Because the student must learn to disregard information irrelevant to a particular situation, his training must encompass the selective function. This would mean being able to select the filing system best suited to the needs of a particular firm.

Elementary business training affords many opportunities for students to participate in self-directed learning activity. This directive function is of highest importance for the "ability of the student to direct himself in thinking in abstracts is one of the indications of a trained mind."¹⁶ Setting up a personal budget is an activity of this type.

The laboratory work in the elementary business course provides ways and means of developing in the younger students of the secondary group the ability to appreciate and understand what they are studying through participating in real life situations such as school banking, ticket campaigns, lunch room duty, simple office duties and the like.

In addition to serving the participating function, this course also serves the preparatory function in that the student gains the basis for further and more exhaustive study of business. For example, keeping a simple cash account emphasized the importance of record keeping and thus lays the groundwork for bookkeeping.¹⁷

¹⁶ _____, Benjamin R. Haynes, Problems of Teaching Elementary Business Training, New York: Prentice-Hall, Inc., 1929, p. 20.

¹⁷ Ibid, pp. 16-24.

The general aim in elementary business training is to provide a commercial subject for junior high school pupils that is within their capacities to learn, within their predominant interests, and suited to their degrees of maturity:

Junior high school students should be able to understand in an elementary way fundamental principles of business and business practice which tends to be useful to all persons regardless of particular occupations should be able to exercise good business habits which are needed by all persons regardless of particular occupations should be able to hold high ideals of business conduct, to cherish wholesome attitudes toward their fellowmen in business relations, and to have worthy appreciations of what is good and just in all their business dealings would be able to use their advantages, the above to the solution of business problems that tend to be within their abilities, worthy interests, and maturities of life experience.¹⁸

The problems chosen by such a course should relate to business practices which may be valuable to the pupils who leave school prematurely; to subjects in which the pupils may later enroll; to experiences which enable the pupil to find whether he has an aptitude or lack of aptitude for business practices, and further business subjects; to life activities of the pupil in which he needs guidance regardless of all previous considerations. Thus business education in junior high school provides in some measure vocational training for those who leave school prematurely and serves as an introductory course leading to the commercial curriculum of the senior high school.¹⁹

¹⁸ Ibid, pp. 36-37.

¹⁹ Ibid, pp. 27-42.

In studying the problem of subject matter to be used in elementary business training, the authors found that there seem to be no clearly defined boundaries as to what subject matter should be included in the course. The most apparent weaknesses are lack of correlation as to topics and lack of definite terminology. They found one point of similarity in the outlines of courses in that in practically all the syllabi, the first part of the course pertained to general or informational material, the second part to vocational material, thus filling the needs of the two groups mentioned above.²⁰

In elementary business training the enterprising teacher finds countless situations in which all the principles of learning as to simplified, precise practice within the worthy life experience of the student can be applied. For example, some schools have arranged their banks to resemble a teller's cage where all the formal requirements of a commercial bank must be met as to deposit tickets, signature cards, properly drawn checks, bank books, and similar materials.²¹

An example of the whole method teaching in elementary business is that of having the student view by chart or otherwise, a business organization in its entirety. Then within this whole view, to see the whole work that is performed by each of the departments and to see their interrelation.

²⁰ Ibid, pp. 45-64.

²¹ Ibid, pp. 68-75.

The part method can likewise be successfully adapted to the study of stock record cards, sales slips, and various business forms. These parts gradually come to be related as their relationship to the entire routine of business is developed.²²

Since the first part of the course tends to be informational and serves as a background of knowledge for all students, the subject matter material should embody a study of the meaning of service and cooperation; of the necessity for order and system; of the principles of business organization--the need and value of business organization; of qualifications needed for success; and of the elementary principles of salesmanship.

The course should also include training in making written applications and personal interviews. In addition, it should provide for information regarding commercial banks, savings banks, postal savings, trust companies, use of definite forms of remittances, and of various services provided by banks.

It should include practice in the use of directories and reference books, and of various devices such as telephone and telegraph.

In the second part of the course, the subject matter material should deal with the duties and occupations of somewhat related elementary commercial occupations, such as messenger boys or junior office assistant, mail clerk, filing clerk, billing clerk, pay roll clerk, machine operator, receiving clerk, cashier, stock clerk, shipping clerk, or other jobs to be found in the school community which are open to adolescents. If more formal sub-

²² Ibid, pp. 75-76.

SEP 25 1939

jects such as arithmetic, bookkeeping, penmanship are utilized, they should be thought of as incidental to the course and handled as they may be related to the various forms and practices studied in connection with the course, for the study of elementary business occupations together with the background of general information and character training pertaining thereto form the basis of the course in elementary business training for adolescents, and the subject matter must be presented and arranged as to take cognizance of that fact.²³

Many of the problems found in elementary business training require reflective thinking. For example, the class has been studying checks, what they are and uses, how to write them, endorsements, and the cashing of them. A problem arises--John's father has a bill that must be paid at once, but he is out of town and there is not sufficient cash in the house to meet this debt. John has a bank account. He decides to pay the bill and let his father reimburse him. To do this, he must ascertain the name of the creditor, amount of bill, and must handle the matter in a business-like manner.²⁴ This type of problem trains the student in the invaluable method of reflective thinking. However, these problems must be within the actual experience of the learner, and must be within his native capacity. Dr. Lomax says:

²³ Ibid, pp. 45-64.

²⁴ Ibid, pp. 88-96.

The ability to solve problems is dependent upon the ability to think possible solutions, and such ability is in turn dependent upon sheer intelligence. This consideration is of major importance in high school education where an increasingly larger proportion of different degrees of native ability to learn--ranging from high to low I. Q.'s--are to be found.²⁵

The application of the characteristics of skill as propounded by Books²⁶ can be readily be made in the teaching of elementary business training. For example, James, a member of the class, wishes to write a letter of application for a job as office boy. He has never written such a letter. As a class study, the teacher selects the model for the letter and places it on the blackboard or gives each member of the class a mimeographed copy. Students write letters. They are read aloud and discussed and evaluated by the students in accordance with the model. After a satisfactory letter has been written, the class finds advertisements of vacancies and writes letters of application. This practice continues until each member has perfected his skill. James now writes and mails his actual letter of application. Others may do so if desired. The study is repeated later in the year as a check up.²⁷

The public school system is indicted for seemingly being primarily concerned with the teaching of particular subjects "rather

²⁵ Commercial Teaching Problems, New York: Prentice-Hall, Inc., pp. 151-153.

²⁶ William F. Book, Learning to Typewrite with a Discussion of the Psychology and Pedagogy of Skill, New York: The Gregg Publishing Company, 1925.

²⁷ _____, Benjamin R. Haynes, Problems of Teaching Elementary Business Training, New York: Prentice-Hall, Inc., 1929, pp. 100-110.

than with the utilization of the subject matter for the development of character traits in the student."²⁸

The procedure to be followed in character trait development consists in diagnosing the situation, creating desire for improvement, developing a plan of action, requiring practice, and integrating the personality.

In elementary business training these procedures may be followed much as they would be in any course where the personnel is composed of adolescents. When a student shows that he is lacking in certain traits, steps must be taken to ascertain the cause of this deficiency. Next, there must be created in this student a keen desire for desirable ideals. In this connection, a discussion of sterling qualities necessary to success is a method of approach. Practical application of these ideals is to be found through the studies of autobiographies and in the life of the student. The student must be given opportunity to practice these qualities and the test comes when the opportunity to put this ideal into action presents itself. In order to have the ideal become an integral part of his life, the behavior pattern must be established.²⁹ Indirect rather than direct method is perhaps the more desirable of the two. The work in elementary business training should be so arranged as to "create favorable conditions for this indirect moral instruction Through the conduct activities of this subject, pupils may be given an understanding of the

²⁸ Ibid, p. 114.

²⁹ Ibid, pp. 112-121.

sterling qualities which are essential to success."³⁰

The authors are convinced that "Of all the subjects in the commercial curriculum, there is probably no other that offers any greater opportunity for character development than elementary business training."³¹

Since elementary business training abounds in life situations, it can be presented so as to invoke real pleasure on the part of students. Because of the diversity of subject matter and the always-present diversity in the students, the authors recommend no best method. However, two illustrations of types of approach are given, either of which should prove effective. These are the application for position approach, and the business organization, approach. Interesting projects and assignments have been assembled by the authors in each plan of approach.³²

Since all learning should be based on purposeful activity found in actual life problems, one of the greatest possible advantages of elementary business training is that it offers a wealth of opportunity for active living and purposeful activity. It is thus evident that extensive equipment might be used in teaching this subject.

The authors have found that various utility companies, manufacturers, telegraph and telephone companies, railroads, banks, and other organizations are very glad to be of assistance in

³⁰ _____, Benjamin R. Haynes, Problems of Teaching Elementary Business Training, New York: Prentice-Hall, Inc., 1929, p. 122.

³¹ Ibid.

³² Ibid, pp. 129-151.

supplying materials. Many companies will supply organization charts, graphs, job specification sheets, and actual business forms free of charge. The assistance of the woodworking and sheet metal shops can be secured in contributing to the equipment used in elementary business training. Thus the ingenious teacher can secure a wealth of equipment at a minimum cost. By means of this classroom equipment, the text material may then be used as a means of correlating and explaining the selected practices.³³

Since the boundaries of business arithmetic have come to be more clearly defined, its subject matter more definitely prescribed, and various techniques connected with the course more uniformly accepted, less space will be devoted to business arithmetic than was given to elementary business training.

3. Business Arithmetic

Since Dr. Lomax and his collaborator, Dr. John J. W. Neuner, felt that methodology as to the teaching of business arithmetic had been somewhat neglected, that business arithmetic had been a sort of "step-child" in the commercial education field, and that some vigorous outspoken philosophy on the subject would serve to place business arithmetic in its rightful place, they accordingly set about writing a book³⁴ dealing with the problem of teaching business arithmetic.

³³ Ibid, pp. 155-160.

³⁴ John J. W. Neuner, Problems of Teaching Business Arithmetic, New York: Prentice-Hall, Inc., 1932.

A problem uppermost in the minds of the authors is that of the lack of professional preparation on the part of the teachers of this subject. It is pointed out that in recent years teaching specialization in business education has become more narrowed and more intensive. And, because this specialization in business subject has tended to be in subjects other than business arithmetic, such as secretarial studies and accounting, the teaching of business arithmetic is frequently assigned to teachers "inadequately prepared both in content of subject and in methods of teaching."³⁵ Despite this unfortunate situation and despite the fact that business applications occupy an increasingly larger part in textbooks in general arithmetic, business arithmetic is still widely taught as a separate subject.

Because the subject matter in general arithmetic is devoted to a considerable extent to business application, as stated above, many school administrators feel that there is no longer any need for a specialized course called business arithmetic. However, business men all too frequently complain, and classroom measurements show that high school graduates are very deficient in their arithmetical ability.

Lomax and Neuner believe that this evident deficiency shows the need for the continuation of a well-developed course in business arithmetic under the direction of teachers who are especially trained for it.³⁶

³⁵ John J. W. Neuner, Preface, Problems of Teaching Business Arithmetic, New York: Prentice-Hall, Inc., 1932, p. iii.

³⁶ Ibid, pp. iv, v.

The authors state that business arithmetic has two major objectives, namely: command of fundamental processes, and vocational preparation. It should encompass a knowledge of the relationships that exist between business arithmetic and business management, and specific business occupations.³⁷

In line with this concept, they maintain that the educational value of direct and basic import in business arithmetic is that of skill development. However they agree with Wilson³⁸ that an additional educational value of this subject lies in its informational aspect as related to the numerical concept needed particularly in reading, in personal use, and in judging relative values--for example, understanding the reference to steel tonnage produced, mileage on automobile maps, stock quotations, dividend declarations, and advertising values.³⁹

The authors emphasize the fact that "business arithmetic is essentially arithmetic adapted to business situations." However, they likewise emphasize the fact that since business has spread until almost all social activities are involved in it, that the problem of selection of topics becomes one for investigation in the light of occupational requirements. By means of the occupational or activity analysis method, the infrequently used processes could be eliminated and more intensive drill applied to the essentials.⁴⁰

³⁷ Ibid, pp. 23-24.

³⁸ Guy M. Wilson, What Arithmetic Shall We Teach, Boston: Houghton Mifflin Co., 1926.

³⁹ _____, John J. W. Neuner, Problems of Teaching Business Arithmetic, New York: Prentice-Hall, Inc., 1932, pp. 33-35.

⁴⁰ Ibid, pp. 35-37.

In order that the vocational objectives of the course which the writers hold to be of major importance may be realized, the subject matter in business should be so arranged as to present a "complete picture of the various situations in which the different problems occur."⁴¹ It is logically maintained that although "business arithmetic is essentially a drill subject, business information and situations can and should be constantly presented so that the pupil is not left with abstract ideas, but placed in contact with living situations requiring high degrees of skill and intelligence."⁴²

It is pointed out that interest may be stimulated by giving the pupils "more opportunity to learn from business executives and office workers of what use business arithmetic is to them."⁴³

Business arithmetic presents an excellent vehicle for the combination in a single problem of the application of reflective thinking, acquired skills, and certain standards of conduct, but that these procedures tend to be fixed in the pupil's behavior only through experience and continued practice.⁴⁴

The skill necessary to problem solving should be developed to the point that the "response is more or less habitual or automatic." It is pointed out that one skill of great importance is that of verifying results. When the pupil has developed this skill,

⁴¹ Ibid, p. 47.

⁴² Ibid

⁴³ Ibid, pp. 65-66.

⁴⁴ Ibid, pp. 72-74.

he is then able not only to find his own errors and maintain his own standards of accuracy, but to gain a clearer understanding of the processes involved. If a high degree of skill in the arithmetical processes is to be acquired, frequent practice both oral and written is essential. Due regard should be given to accuracy and a "reasonable business standard of speed."⁴⁵

Dr. Lomax and Dr. Neuner agree with Charters⁴⁶ that practically all school subjects offer opportunities for character training. Numerous excellent situations arise in the teaching of business arithmetic which may be utilized in bringing about desirable traits and their applications. For example, the problem of insurance offers opportunity for discussion of such traits as cooperation, foresight, happiness, judgment, responsibility, and service to society. Such discussions should be brought about through the indirect group method and should always be incidental to the main theme.⁴⁷

There are two methods of procedure--the theoretical and the business application approach. Advantages of the first method lie in the fact that business arithmetic may be taught by members of the mathematic department, and that when this is done it helps solve a staff problem, for the enrollments in the usual mathematical courses are decreasing. In addition, the pupil becomes an expert mathematician and learns to adapt his knowledge to

⁴⁵ Ibid, pp. 85-87.

⁴⁶ W. W. Charters, The Teaching of Ideals, Adapted, New York: MacMillan Co., 1927.

⁴⁷ Ibid, pp. 107-109.

business practice. On the other hand, if business arithmetic is taught by mathematics teachers, the subject matter and skills developed do not serve as preparation for work in bookkeeping and business practice because they are too general; thus business arithmetic becomes a general educational subject, rather than a vocational subject with direct commercial value.⁴⁸

The business application approach may be constructed through the junior business training approach, the calculating machine approach, or the business situation and problem approach. In the first type the problems or drill exercises in the fundamental process are sometimes given in the junior business training textbooks, the presumption being that the business papers, of clerical occupations discussed in the textbooks, have a definite relation to business arithmetic. This method has its disadvantages in that the "scope of business arithmetic is made subsidiary to the junior business training the drill material is inadequate and junior business training tends to receive the greater emphasis."

Under the calculating machine approach the fundamental processes are calculated on the machines, thereby eliminating considerable drudgery and lessening the possibilities of inaccuracies on the part of the pupils.

Lomax and Neuner are careful to point out that all business information and methods of analyzing the problems must be taught before practice on these problems is given at the machine.

The important thing to be remembered in this approach is that, while the machine is a mechanical substitute

⁴⁸ Ibid, pp. 112-114.

for the pencil, it is not a substitute for an intelligent understanding of the business situation in which the problem arises.⁴⁹

In the business situation approach, more time is given to the development of principles and skills than in the junior business training approach; the problems are developed through situations which represent conditions as they really are in business, together with all the business forms involved; the main emphasis is placed upon business practice.

Care must be taken to see that the problems or situations discussed be of good business practice.⁵⁰

As regards equipment the authors take the practical vocational point of view and maintain that in addition to the usual conventional equipment the business arithmetic classroom should be provided with demonstration calculating machines most used in the local community. In addition to this mechanical equipment, the course may be enriched through supplies of forms such as payroll sheets, time sheets, sales slips and so on. As was pointed out in the discussion of junior business training, much helpful material may be secured free.⁵¹

4. Bookkeeping

Enrollment in bookkeeping as a specialized course showed a slight decrease over the nation as a whole, according to statistics compiled during the period, 1915-1928.

⁴⁹ Ibid, p. 115.

⁵⁰ Ibid, pp. 112-116.

⁵¹ Ibid, pp. 133-135.

It seems that this decrease is due largely to two factors--one, that elementary business training is being substituted, to some extent, for bookkeeping in the ninth grade; the other, that in order to meet modern practices in bookkeeping, the course is increasing in difficulty, therefore making it necessary that students who enroll for the course be somewhat mature and well qualified. Despite all this, bookkeeping remains one of the principal business subjects in the secondary schools of the United States, and for this reason, problems arising in connection with it should be given serious attention.⁵²

The statement which follows leaves no doubt as to the views held by Lomax regarding the chief aim of the course:

Bookkeeping is primarily vocational. Students study bookkeeping because they hope, through such study, to become vocationally efficient to such a degree that they may hold positions in business life.⁵³

This statement does not detract from the idea that the general knowledge and broad view of business which the student gains has non-vocational value; it does, however, point to the assumption that this knowledge and broad view of business has more vocational value than non-vocational.⁵⁴

Command of the fundamental processes inherent in bookkeeping is a correlative aim; development of ethical character is an aim present in all learning.⁵⁵

The time for offering the course has created considerable discussion. The most acceptable procedure seems to be to devote

⁵² _____, Peter L. Agnew, Problems of Teaching Bookkeeping, New York: Prentice-Hall, Inc., 1930, pp. 1-10.

⁵³ Ibid, p. 12.

⁵⁴ Ibid.

⁵⁵ Ibid, pp. 12-13.

the tenth and eleventh years to the study of general bookkeeping and management in the twelfth year, including enough accounting to keep the student from losing the skill and knowledge previously acquired. Furthermore, the course in business organization and management may be offered in conjunction with training in the operation of bookkeeping machines.⁵⁶

The choice of subject matter materials in bookkeeping should be based on activity analysis, collective opinion, and survey.⁵⁷ A certain degree of latitude should be allowed in order that the teacher may enrich the course for the particularly capable students.⁵⁸

In the application of functions to the study of bookkeeping, particular emphasis is given the selective function. It is recommended that only those students who show aptitude for the course be allowed to enroll, or to continue with it beyond the first exploratory year.⁵⁹ On the other hand students who show promise, should be advised of the opportunities open to the well-trained accountant.⁶⁰

The procedures of reflective thinking, skill building and character training are readily adapted to the learning of bookkeeping. It is said that "by the process of reflective thinking, the student may reason out a response that will be adequate, and then

⁵⁶ Ibid, pp. 56-57.

⁵⁷ Ibid, p. 49.

⁵⁸ Ibid, pp. 59-60.

⁵⁹ Ibid, p. 35.

⁶⁰ Ibid, p. 39.

he should build this response into a skill."⁶¹ A number of plans may be followed in the development of acceptable qualities of character, but the most objective and probably the best if properly applied, is that of selecting a number of people who are engaged in bookkeeping, "analyze the duties of these people and determine the traits that appear to be of greatest importance in the successful performance of these duties."⁶² It is pointed out that while "we may emphasize the character traits that are vocationally important, we must remember that the character training received in school must function in the lives of the students, not only while they are at work, but also while they are spending their time off the job."⁶³

The technical training of the bookkeeping teacher should include, of course, comprehensive knowledge of bookkeeping and accounting; his other professional training should be similar to that of the teacher of economics or shorthand.

In addition to good desks, chairs and cabinets which would be part of the equipment of the classroom, some of the more widely used bookkeeping machines should be provided. This provision would enable the school training to more nearly conform to business requirements in this respect.⁶⁴

⁶¹ Peter L. Agnew, Problems of Teaching Bookkeeping, New York: Prentice-Hall, Inc., 1930, p. 129.

⁶² Ibid, pp. 145-146.

⁶³ Ibid, pp. 146-147.

⁶⁴ Ibid, p. 201.

5. Economics

Since the time-worn expression, "the old order changeth," is peculiarly applicable to economic theory, Dr. Lomax and his collaborator, Dr. Herbert Arthur Tonne, feel that a detailed study⁶⁵ of the problems of teaching connected with this momentous change in economic processes is timely.

The authors point out that the study of economics has now become a definite part of the school curriculum.⁶⁶ However in their opinion the more perplexing problem is not "to teach or not to teach" economics, but when it is to be offered. They believe that nation-wide studies need to be made concerning the time to be devoted to it, and when it should be offered.

In the minds of the authors there is no question as to the value of the study of economics, even on the high school level, because it "affords continuity in the elements that go into the curriculum" and affords a working knowledge of certain social and industrial problems. They believe that since so many students do not continue in college, that a course suited to high school student needs should be offered in the twelfth grade.

The question as to where it is taught, whether in the commercial department or the social science department, is relatively unimportant. However, the question of unity is important: "Departmentalization of subject matter, is fundamentally, merely an

⁶⁵ Herbert Arthur Tonne, Problems of Teaching Economics, New York: Prentice-Hall, Inc., 1932.

⁶⁶ High School Enrollment by Subject, for 1922 and 1928, Office of Education, Mimeographed one-page circular, 35, 871. Washington, D. C.: September, 1929.

administrative device; it should never be permitted to interfere with the unity of education."⁶⁷

As to the question "Is economics vocational?" Lomax and Tonne reply:

Probably one of the principal reasons why economics is placed in the curriculum is that it has unquestioned vocational values if it is properly taught In giving special attention to the vocational objective, the business curriculum would naturally be made to include a course in economics.⁶⁸

The reason that this objective is accepted more in theory than in practice is because the instructor usually has a strongly academic viewpoint, and deals in economic abstractions rather than in practical ideas as applied to vitalized meaningful topics which make of the vocational objective a learning and teaching goal.

It is pointed out that the vocational value of economics is not as specific as that of shorthand but that its vocational values are not decreased because they are concomitant instead of focal or primary.⁶⁹

These concomitant learnings are all the more important because they are marginal. Because they are so easily ignored and because they may possibly function far more actually in life than will the direct school learning acquired, they should be given special consideration.⁷⁰

It is the opinion of Lomax and Tonne that "no proper understanding of the weaknesses and strengths of our American government

⁶⁷ Herbert Arthur Tonne, Problems of Teaching Economics, New York: Prentice-Hall, Inc., 1932, p. 24.

⁶⁸ Ibid, p. 33.

⁶⁹ Ibid, pp. 33-34.

⁷⁰ Ibid, p. 140.

can be had without a thorough realization of the economic forces that are shaping our destinies."⁷¹

Because the average newspaper reader has little conception of these forces shaping our destinies, he turns to the lurid account of the latest murder rather than reading matter of national import. Movies resort to trivial subject matter because too few people appreciate and follow deeper currents of thought. A background based on a study of economics--trends of both the present and the earlier periods--would make reading, travel, the movies, and many other forms of entertainment more truly worthwhile.⁷²

The study of economics is a course not only where necessary knowledge can be gained but where the importance of right ideals, both of the group and of the individual, can be readily determined.⁷³

Lomax and Tonne find the aims in the teaching of economics⁷⁴ as issued by the public schools of St. Louis, Missouri, to be a "sustained effort to set up for actual practice a modern philosophy of teaching."⁷⁵

Of all the formal functions⁷⁶ of education, this course, according to Lomax and Tonne, probably serves the adaptive function most effectively. Since the course holds a "strategic position" in the curriculum, previous courses of study can be adapted here

⁷¹ Ibid, p. 35.

⁷² Ibid, pp. 40-41.

⁷³ Ibid, pp. 46-47.

⁷⁴ Curriculum Bulletin on Economics, No. 29, 1926, Public Schools, St. Louis, Missouri.

⁷⁵ _____, Herbert Arthur Tonne, Problems of Teaching Economics, New York: Prentice-Hall, Inc., 1932, pp. 55-57.

⁷⁶ Ibid, p. 66.

and made usable for later life in business or in college." For the example: the knowledge of economics makes it possible for the book-keeping student to comprehend the "basic interrelation of expenses and assets without a practical understanding of the relationship between service and profit and the entrepreneur cannot long be successful."⁷⁷

Business education has attempted to fulfill the preparatory function "by concerning itself solely with preparation for certain specific jobs in business life," This attitude has tended to lower the status of business education of the secondary school level. Since the number of students who attend college is relatively small, one function of education should be to "anticipate growth that will continue beyond the limits of the regular school period and permit of adjustments to the new world of life experiences that lie ahead."⁷⁸ A course in economics on the high school level rightly developed and presented will contribute to the function mentioned herein by establishing a richer background for the student, thus more nearly preparing him for solving problems found not only in the business establishment but also in the social institutions which directly affect each individual.⁷⁹

It is pointed out that there should be a close correlation between the amount of space given to certain topics in current literature and in the textbooks. Textbooks should devote attention

⁷⁷ Ibid, p. 8.

⁷⁸ Ibid, p. 85.

⁷⁹ Ibid, pp. 84-85.

to those phases of economics which are of greatest current interest, for unless this is done, the text tends to be too theoretical. If daily life values are not being utilized, they lack "proper balance with regard to the various economic topics they treat."⁸⁰

There are two main methods of teaching economics--the authoritative and the developmental. Both methods with their variations are interwoven in almost any class period; each has its advantages and disadvantages. The authoritative method should be utilized by the inexperienced, less competent teacher; the developmental method in the hands of a well-trained, experienced teacher possessed of poise and classroom tact can be used to produce very fine results. The latter type of procedure "tends to bring the class into a more lifelike condition." The discussion is conversational, natural; however, it calls for skillful management.⁸¹

Lomax and Tonne recommend that formal term papers in economics be left to the junior year in college. More will be accomplished through the use of a few shorter papers requiring a week of preparation for each.⁸²

Collateral reading is a necessity. However they assert that the reading assignment is useless unless the teacher finds a method for providing recognition of the students' efforts.⁸³

Much that has been given previously in this study regarding tests is applicable to the testing program, with regard to economics. However, emphasis is given to the idea that tests are valuable not only as one basis for determining grades, but for prognosis and

⁸⁰ Ibid, pp. 113-114.

⁸¹ Ibid, pp. 193-215.

⁸² Ibid, pp. 247-248.

⁸³ Ibid, pp. 248-251.

diagnosis as well. Distribution rather than per cent of achievement on a test is the best procedure to be used in establishing marks.

Since American teachers sometimes feel that requirements are quite rigorous, Lomax calls attention to the preparation requirements of teachers in Germany. In the German schools, which approximate the American high school, the teacher of business and economics must have taken work which is equivalent to our master's degree, must be able to speak fluently at least two foreign languages, must have had actual business experience, and must have served for two years as a novice under the guidance of an experienced teacher before he is recognized as a full-fledged teacher. Dr. Lomax advocates that in the American situation, the minimum requirements for the economics teacher be the baccalaureate degree. However, he indicates that the mere possession of a degree is not necessarily proof that the teacher of economics possesses the abilities required in teaching the subject. These abilities pertain to background of knowledge, skills, ideals, field of interest, principles and methods of teaching. In the prospective economic teacher's course, at least one-third of his total hours should be devoted to economics and its allied subjects. Since economics is essentially a science of business, it would be advisable that some business experience be required and curriculum credit given for it.⁸⁴

⁸⁴ Ibid, pp. 318-329.

6. Typewriting

Dr. Lomax and the co-authors, Helen Reynolds and Margaret H. Ely, have treated the problems of typewriting quite comprehensively in their book⁸⁵ of approximately three hundred pages. In this study many praiseworthy suggestions and ideas are of necessity treated briefly or omitted entirely. Their opinions on some controversial questions are given more consideration than points on which there is more general agreement.

The authors believe that since typewriting is the most popular of the business subjects, with enrollment of approximately one million students, it should be taught by well-prepared teachers. These teachers should have at least four years of college training, and, for numerous reasons, narrow specialization should be avoided.

In relation to the major objectives of education, typewriting makes its greatest contribution through development of the command of fundamental processes and vocational efficiency.

In order to meet these objectives, it is pointed out that the pupil should develop the skill necessary to arrange material in attractive form to meet business or personal needs. He should learn to type rapidly and accurately when transcribing from shorthand notes, from direct dictation, or from the dictaphone; when composing letters or other similar matter directly on the typewriter; when preparing materials for various types of duplicating machines. In addition, he should acquire sufficient skill to write new straight copy for fifteen minutes without error, and also to write at a minimum of fifty words a minute for fifteen minutes with not more than

⁸⁵, Helen Reynolds and Margaret H. Ely, Problems of Teaching Typewriting, New York: Prentice-Hall, Inc., 1935.

seven errors. Related skills pertain to filing and to the selection of the form, method, or labor-saving device best adapted to the work to be performed.⁸⁶

In addition to attaining the skill necessary as cited above, social education is particularly important to the business education student who must earn his own living.

This being true, the typewriting teacher must know what business requires of employees as to personality traits, and make definite provision for enabling the student to practice and develop these characteristics.

Certain habits receive special mention because they rank high in important lists.⁸⁷ These are accuracy, responsibility, systematic habits, courtesy, judgment, loyalty.⁸⁸ A teacher who is conscious of this important responsibility regarding character training and personality development will find many opportunities for carrying out this work, usually incidentally but not necessarily so.

An appreciation of accuracy is an important factor in the teaching of this trait; for this reason, setting an arbitrary standard should be avoided. If the student sees that accurate typing may be achieved by the "hunt and peck" method, but that correct technique is all-important because it leads to accurate

⁸⁶ Ibid, pp. 21-22.

⁸⁷ F. G. Nichols, et al, A New Conception of Office Practice, Harvard University Press, 1927, pp. 57-94, and W. W. Charters and Isadore B. Whitley, Analysis of Secretarial Duties and Traits, Baltimore: Williams and Wilkins Co., 1924, p. 57.

⁸⁸ Helen Reynolds and Margaret H. Ely, Problems of Teaching Typewriting, New York: Prentice-Hall, Inc., 1935, p. 37.

and more rapid work, the right attitude toward accuracy may be acquired. The right attitude toward accuracy may be encouraged by discussion of inaccuracies as being costly as to material and time, both in a personal sense and as regards the employer. It is important that standards of accuracy be real business standards, but at the same time, the standard agreed upon should be the result of cooperative decision by the pupils. The pupil should react favorably to this ideal of accuracy at all times.

Other traits may be developed through typewriting if the procedure is based on right psychological and educational approach.

The authors believe that the typewriting teacher has an important part in the development of the trait of responsibility.

The pupils' admiration for the teacher who exemplifies the trait of responsibility is a potent factor in establishing the desire for the trait in their minds. A lack of rapprochement between teacher and pupils will make the development of personality traits a practical impossibility.⁸⁹

Caring for the classroom, following instructions placed on the board--handling many routine duties afford opportunity for pupils to develop this trait. However, as pointed out in the above, the pupils themselves must appreciate the value of standardized methods for taking care of routine matter and must agree that such procedure is important and that it contributes to the progress of the class.

It is of utmost importance that the student realize that he should develop many desirable traits and that they be possessed in the proper degree--an overdose of frankness may become and

⁸⁹ Ibid, p. 49.

unkindness. He must strive for an integrated personality.⁹⁰

In the acquiring of skill, an unsatisfactory response should never be allowed to be satisfying to the learner, and when a correct response is made, much satisfaction must be felt in order that stimulus and response be rapidly and economically strengthened. This means that the teacher must observe closely these responses and commend as frequently as possible the successful results.⁹¹ It is pointed out that the completeness of the neural connection or pattern is determined by frequency, recency, and intensity.⁹²

These specialists believe that the student of typewriting should have "an ideal of workmanship" and" should be trained in diagnosing his own errors." They also believe that "speed and accuracy cannot be separated in production of usable typewritten work--either for commercial or for personal use." They likewise believe that the commercially useful first copy should be the standard impressed upon pupils from the beginning.

Lomax and his co-workers are of the opinion that typewriting students should not be classified merely according to their mental ability. They call attention to the limited experimentation which thus far shows a low positive relation between typing ability and mental ability. They point out also that a certain weakness exists in this experimentation:

It is important to observe that in such experimentation a distinction should be made between the relationship of mental ability and of typing skill as shown in straight-copy ability, and between the relationship of mental

⁹⁰ Ibid, pp. 27-51.

⁹¹ Ibid, p. 67.

⁹² Ibid, pp. 70-73.

ability and of typing skill as applied to such office-problem situations as letter arrangement and tabulating. It is conceivable that in the latter relationship, there is a much more significant positive coefficient of correlation.⁹³

The testing program in typewriting should consist of a variety of tests covering every kind of typewriting experience.⁹⁴

The pupil's class grade should be based upon his whole typewriting achievement in keeping with the desired outcomes for a particular semester. Reference is made to the difficulties involved in setting up an arbitrary number of errors as constituting the basis for a grade, in that material varies in difficulty. Since there are many factors that differentiate testing material, it is asserted that the grade for each individual should be based on relative standards.⁹⁵

7. Shorthand

Dr. Lomax believes that a subject which concerns annually more than one-half million students and approximately fourteen thousand teachers "should be constantly and critically evaluated in the light of best educational theory and practice."⁹⁶ Since many problems arise in the teaching of shorthand concerning educational theory and practice, an effort has been made to solve some of these problems and to aid and encourage educational evaluation and development within this subject.⁹⁷

⁹³ Ibid, p. 201.

⁹⁴ Ibid, pp. 209-210.

⁹⁵ Ibid, pp. 219-225.

⁹⁶ John V. Walsh, Problems of Teaching Shorthand, New York: Prentice-Hall, Inc., 1930, Preface iii.

⁹⁷ Ibid.

Of the cardinal objectives of education, it is believed that shorthand is more directly concerned with vocation and command of fundamental processes than with any of the other objectives. However, they assert that development of ethical character is always present as an objective.

"It is the best development of the individual's personal qualities that is the primary goal of all educational efforts."⁹⁸ This, it would seem, concerns any and all subjects in the curriculum.

It is pointed out that there are certain fundamental processes, generally regarded as tools, which pertain to any subject; with shorthand these are symbols or characters by means of which spoken thought is recorded. It is through command of these shorthand tools that vocational control becomes a fact.

Dr. Lomax and his co-worker, Dr. John V. Walsh, find that these two major objectives of shorthand in themselves embrace knowledges, skills, ideals, and powers, and that these must be skillfully blended to bring about "efficient stenographic practice." Through the various functions of commercial education, which are explained on page twenty-one of this study, these elements are unified into complete shorthand learning, which comprises understanding the principle, applying it with speed, ease and precision; reading back rapidly and accurately; and transcribing in accordance with best business standards.

This transcription power comprises one very large phase of the stenographer's office practice and comprehends many correspondence situations. It includes preparing letters from complete dictation by the employer, from brief notes made on the margin of incoming letters, taking telegrams, sending them out correctly, handling

⁹⁸ Ibid, p. 12.

confirmations and similar office problems; this power also includes taking many letters at one sitting and transcribing them, perhaps many hours later. Since these powers are developed best through precise practice, the "office practice situation needs to be included even in shorthand theory classes, as essential media for learning the theory."⁹⁹

The authors believe that shorthand, because of its inherent nature, conforms very specifically to the laws of learning.¹⁰⁰ In applying these laws to the learning of shorthand, they emphasize the fact that "no aims in teaching shorthand can be realized unless the student has learned how to direct his own learning effort." The development of this independence on the part of the student requires a careful approach by an experienced, trained teacher--one who because he knows how to direct his own learning can assist others to direct theirs.

Another point emphasized is the process of learning shorthand through variety in approach and procedure. This variety is essential because the development of shorthand skill, which must be highly developed and refined, requires endless repetitive practice which can assume deadly monotony unless the teacher builds up the correct emotional responses in the students by the right blending of routine and of change in procedure.

A weakness in teaching which these authors seek to correct is the lack of direction attached to the home work assignment. Their

⁹⁹ Ibid, pp. 10-42.

¹⁰⁰ See p. 22 of this study.

definition of a good assignment is "work commenced in class to be finished at home" is a good one. If the assignment is properly made, much of the problem solving or reflective thinking which must be done in learning shorthand can be done at home in rationalizing the work of skill building.

The best method of teaching shorthand is not the deductive method with its emphasis upon learning principles, for "rules are learned not by reciting them, nor even by talking about them but by using them." The synthetic method of presenting shorthand through consonants, vowels, and finally words, is set aside as being inadequate and not in harmony with the laws of learning. Learning, it is maintained, takes place through an analytical procedure rather than through synthetic and deductive methods. The direct method is conducive to the best results, for instead of the cumulative procedure where one builds from the simple to the complex, one starts with the complex unit--the sentence and breaks it down into words, syllables, letters and then rebuilds.¹⁰¹ The steps in accordance with this direct or analytic method are:

1. Statement of aim.
2. Review dictation.
3. Organization chart.
4. Order of presentation.
5. Motivation.
6. Dictation of new material.
7. Skill building.
8. Connected dictation of new material.
9. Assignment.¹⁰²

None of these steps can be eliminated in satisfactory teaching, it is asserted.

¹⁰¹ Ibid, pp. 120-124.

¹⁰² Ibid, p. 125.

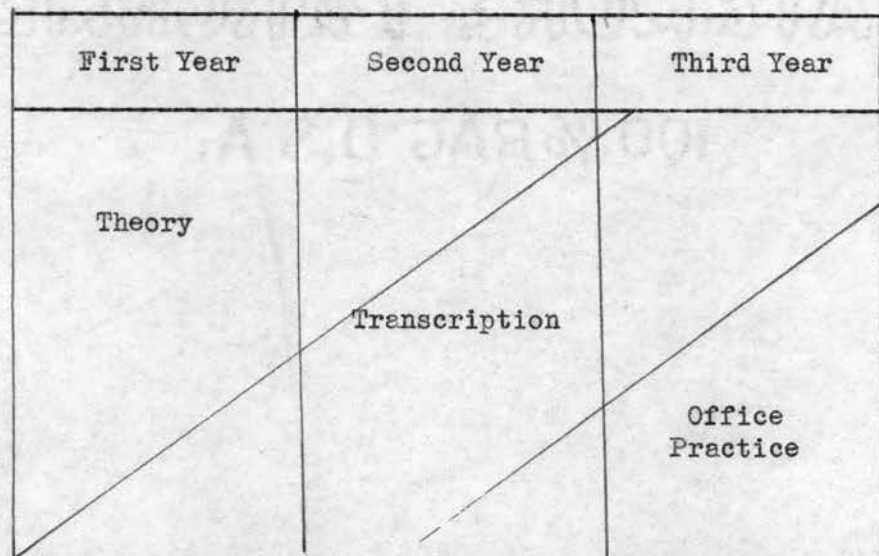
The great advantage seen in the direct method is that there "is no transitional period between theory and transcription classes."¹⁰³ Lomax and Walsh believe that a large portion of the energy expended in a dictation class should go into the building of shorthand vocabulary--shorthand vocabulary is defined as a "stock of shorthand outlines which are ready to be written automatically, immediately after the words have been dictated." In connection with the definition, they maintain that "The principles may have been learned and the words first written according to principles; but, through repetition, the principles fade and the actual outline as a unit is called up when the spoken stimulus is heard."

Lomax and his co-worker are considerably disturbed over the status of transcription; they believe that the process of transcribing is sufficiently important to justify costly research in order to find better means of procedure. They feel that it is a complex activity in which so many elements blend that a great deal of misdirected effort is expended every semester in trying to master it.¹⁰⁴

¹⁰³ Ibid, p. 138.

¹⁰⁴ Ibid, p. 145, pp. 200-202.

In the secretarial course, a time plan regarding theory, transcription, and office practice is devised. This is best illustrated by the accompanying graph.¹⁰⁵



This chart shows how the emphasis on theory, transcription, and office practice shifts throughout a three year course.

Since Dr. Lomax and Mr. Walsh have dealt with practically every phase, every problem, each detail of shorthand teaching in the light of best educational psychology, it is impossible to cover their point of view completely. The statements which follow give their ideas regarding questions which are frequently asked by the average shorthand teacher.

Students should not be allowed to erase.¹⁰⁶
 Dictation at a rate that approximates the office situation should be used.¹⁰⁷

¹⁰⁵ Ibid, p. 89.

¹⁰⁶ Ibid, p. 169.

¹⁰⁷ Ibid, p. 172.

Notebook work should be carefully dated,¹⁰⁸ and as carefully graded as time permits.

Blackboard models should be set if board is ruled; penmanship must be stressed.¹⁰⁹

Reading should be utilized as an aid in achieving skill,¹¹⁰ the reading should be timed.

Principles should be reviewed as often as the class shows need for it.¹¹¹

Vocabulary should be built of the most frequently used words.¹¹²

Rate and comprehension should be stressed in developing shorthand reading ability.¹¹³

Stenographic power must be viewed as composite of dictation, transcription, and office practice.¹¹⁴

It is held that the testing program should involve reflective thinking and should include both the analytic and synthetic type-- the student should be tested on his knowledge of the parts of shorthand and also on his ability to put the "shorthand theory together in a dictation and transcription problem."

A word of caution is given "to those teachers who feel that knowledge of subject matter and business experience are the only essentials in the educational equipment of a teacher of shorthand."¹¹⁵ Such a teacher should have thorough professional preparation, including certain professional courses and general business education consisting of principles of business organization and management, economics, business finance, and business English. He should

¹⁰⁸ Ibid, p. 173.

¹⁰⁹ Ibid, p. 210.

¹¹⁰ Ibid, p. 211.

¹¹¹ Ibid, p. 210.

¹¹² Ibid, p. 205.

¹¹³ Ibid, p. 211.

¹¹⁴ Ibid, p. 215.

¹¹⁵ Ibid, p. 150.

possess functional skill generally included in secretarial activity. And finally, he should possess those traits which are considered desirable for all teachers; and, in addition, possess in bountiful measure the traits of openmindedness and initiative. These qualities are stressed because "the revisions of shorthand systems, the changing methods of instruction and the increasing complexity of the modern office situation indicate that shorthand is dynamic rather than static." The shorthand teacher must be cognizant of this fact.¹¹⁶

8. Dictation

In connection with the problem of dictation, Dr. Lomax says that a good stenographer must meet at least three minimum conditions in taking dictation--he must have efficient command of the mechanics of the spoken language, must know thoroughly the shorthand theory which symbolizes the dictated material, and must be able to comprehend the ideas and meanings of what is being dictated. He believes that the first two essentials have tended to be well appreciated and observed by shorthand teachers, but that the third essential has not been fully appreciated and emphasized.¹¹⁷

In order to improve the student's ability to grasp meaning, Dr. Lomax would have a pupil gain some kind of direct, or first-hand experience, of his own by which to understand the meaning of the ideas involved in such terms as bill of lading, consignment, power of attorney. He agrees with Knudson when he says, "Without

¹¹⁶ Ibid, p. 149.

¹¹⁷ "How Can a Pupil's Ability to Grasp Meanings in Shorthand be Improved," Business Education World, 15:2, p. 129.

this background, vicarious experiencing may amount to no more than going through the motions of learning, in which case the symbol of an idea may be acquired without getting the idea at all."¹¹⁸

In addition to this principle of direct experience, Dr. Lomax would have the experience sufficiently complete "to enable a stenographer to comprehend the beginning, development, and possible or actual outcome of the business matter."¹¹⁹ He is definitely of the opinion that if a stenographer does not have this complete learning experience he becomes a mere human mechanism, more susceptible to errors than a machine mechanism, and does not belong in an office where important business decisions are being made.¹²⁰

It is believed that this shortcoming, as to ability to grasp meaning, does not lie with the teaching procedures but largely with the dictation materials. Most letters in dictation material are "isolated bits of business experience instead of being related series of letters which comprise a complete developing business situation."¹²¹ Since pupils can only conjecture what may have taken place before and after any one letter event, Lomax suggests that teachers organize their dictation materials into connected or sequential business, or other life, experiences so that the pupil may gain a more intelligent idea of cause and effect as related to differing experiences.¹²²

¹¹⁸ Charles W. Knudson, Evaluation and Improvement of Teaching, New York: Doubleday, Doran and Co., Inc., 1932, p. 57.

¹¹⁹ _____, John V. Walsh, Problems of Teaching Shorthand, New York: Prentice-Hall, Inc., 1930, Preface iii.

¹²⁰ Ibid, p. 130.

¹²¹ Ibid.

¹²² Ibid.

Summary

These are the things which occur again and again throughout the many publications and declarations of Dr. Lomax, and that can be definitely said to represent his point of view with reference to the problems of teaching.

The aims of business education should be specifically stated and should be attainable within the time limits of the course to which they pertain.

The functions of education and the laws of learning are peculiarly fitted to business education courses.

Procedures employed by the business education teacher in presenting his subject should be in keeping with modern psychology.

Both the objective and essay types of tests are needed to measure the results of business education teaching.

The student must learn how to direct his own learning.

Activity analysis techniques should be employed in the selection of subject matter and teaching materials.

Three important teaching procedures are reflective thinking, skill building, character building.

Elementary business training provides in some measure vocational training for those who leave school prematurely, and serves as an introductory course to the commercial curriculum of the high school. The course contains both informational and vocational material. There is probably no other course in the commercial curriculum that offers greater opportunity for character development than elementary business training.

There is need for a well-developed course in business arithmetic.

This course should be divorced from general education and should be under the direction of a well-trained teacher of business education.

Business arithmetic has two major objectives, namely: command of fundamental processes, and vocational preparation.

Bookkeeping is primarily vocational. Only those students who show aptitude for bookkeeping should be permitted to enroll in it. Students who do show aptitude for it, should be advised of the opportunities open to the well-trained accountant. Bookkeeping machines should be provided.

Economics is now a definite part of the school curriculum. Its vocational values are not decreased because they are concomitant instead of focal or primary.

Typewriting makes its greatest contribution through development of the command of fundamental processes and vocational efficiency. Further experimentation may show a significant positive correlation between mental ability and typing ability when applied to office problems.

Shorthand is more directly concerned with vocation and command of fundamental processes than with any of the other objectives. The direct or analytic method provides a good approach to the learning of shorthand.

Transcription is a complex activity in which many elements blend. The problem of teaching it is sufficiently important to justify costly research.

A good stenographer must have efficient command of the mechanics of English, must know the shorthand theory thoroughly, and

must be able to comprehend the ideas and meaning of what is being dictated. Complete learning experience enables the student to comprehend the beginning, development, and actual outcome of the business matter.

In addition to his specialized training in his particular field, related fields, and methodology, a teacher of business subjects should have a background of general education. Actual experience in business is very desirable if this experience is diversified--that is, not confined to routine which has little or no educational value, but is the type that broadens the teacher's perspective, enables him to observe modern office practices, to find the demands that various kinds of businesses make of its workers, and to determine some of the relationships that should and do exist between business and business education.

This chapter has dealt with Lomax's treatment of the teaching problems connected with the subjects usually found in the business education curriculum; the chapter which follows delineates his ideas regarding a new plan for the organization of the subject matter of these business education courses of the curriculum into departments, it also gives his ideas concerning methods of revision, grade level placement, and procedure for organizing the business education curriculum in a teacher training institution.

CHAPTER IV

CURRICULUM

Before Dr. Lomax's philosophy regarding the curriculum can be determined, it is necessary to find what he regards as the central or controlling objective of all education, and finally the central and controlling objectives of commercial education--the curriculum is of necessity the outgrowth of predetermined objectives. He says that the educational work of our public-school system in the American democracy has been conceived as one of social purpose and quality and, that because of this purpose, training for citizenship in a democracy has become a central objective. He has found that this objective and that of striving for occupational efficiency have been the only major objectives on which the leaders in business education have tended to be in unanimous agreement; that despite this agreement the school product, regardless of the grade level, apparently cannot cope intelligently and adequately with needed adjustments and readjustments in large-scale living along national and international lines.¹

1. A New Plan for Departments

In order that the schools may render a greater, or rather a more effective service in making possible these adjustments, Dr. Lomax proposes that a specific and thoroughgoing reorganization of the secondary-school curriculum be made. He recommends that

¹ "The Economic-Social Crisis and the Public High School Teacher," Vol. 7, January, 1933, p. 288, Junior Senior High School Clearing House.

those making the revision keep in mind that many school administrators need to be guided in the adoption of changes that would be appropriate in the present situation of society.²

Greater simplicity and unity should be brought about in public-high-school curricula in order that pupils may get both a specialized and unified education by which they may wisely develop, individually and collectively, in accordance with the highest ideals of human attainment.³

In his opinion the focal point in the accomplishment of larger unities amid extensive specialization, is the social institution, as that of business, government or home, rather than the present-day emphasis on technique, as that of bookkeeping, mathematics, or language. He illustrates by pointing out that in teaching business subjects, the techniques of typewriting, shorthand dictation, transcription, bookkeeping, filing, business letter writing, and penmanship, have been stressed rather than the meaningful use of the techniques in the functional life of business, treated as a large inclusive social institution, dependent upon the well-being of all other fundamental social institutions. He further points out that in consequence, while pupils have tended to become efficient technicians as typists, stenographers, bookkeepers, filing clerks, and the like, these pupils have failed to a great extent to understand the meaning, functions, and social mission of business life itself, amid which they have efficiently practiced their techniques.⁴

² Ibid, p. 289.

³ Ibid, p. 290.

⁴ Ibid.

Dr. Lomax asserts that it is a Herculean task for a student to correlate all the miscellaneous and multitudinous learnings he acquires in six years of secondary education; that it is practically impossible for him to unify the great number of highly differentiated subjects taught by highly specialized instructors. In this, he sees additional reason for revising the present curriculum; he believes that this complexity can be simplified by taking the social institution of business and considering its activities in the light of all secondary school learning activities, in order to determine to what extent business education permeates the whole secondary system. He asserts that business education, which deals with the social institution of business as a form of economic organization seeking to utilize our social resources of labor, capital, natural resources, and usable knowledge, for the purpose of gratifying the human for food, clothing, shelter, government, organized recreation, religion, and education, is not confined to the commercial department but is found in such fields as English, mathematics, and social studies.⁵

He further asserts that this is to be expected, for as business activities are interwoven in all social activity, so business education activities tend to be interwoven in all secondary school subject activities. Dr. Lomax is convinced that this natural correlation should be made the basis for active planning.⁶

Regarding the value of this correlation, he says:

The power to use education in life situations is fundamentally the power to correlate education in

⁵ "Correlation of Subjects in Secondary Schools," The Fourth Yearbook, National Education Association, Department of Classroom Teachers, 1929, p. 157.

⁶ Ibid.

life situations An initial attack on the vast complicated correlation problem might well be made through the business activities which are universal in the life experience of all youth and all adults.⁷

In order to unify, correlate, and simplify subject matter through larger units and also make possible extensive specialization, Dr. Lomax proposes that the present usual "subject" departments of high school, with their tendency to lead everyone concerned to think of education in terms of subjects, be replaced with the following plan of departments:

- A. Department of government (including legal) education, representing the social institutions of government and courts.
- B. Department of economics (including business, industrial, and agricultural) education, representing the social institution of business broadly conceived as an economic system.
- C. Department of home education, representing the social institution of home.
- D. Department of recreational (including health and leisure) education, representing the social institution of organized recreation as typified by the theatre, museum, social club, and sports.
- E. Department of ethical education, representing the social side of religion (church) dealt with on a world-wide, non-denominational, and comparative basis.
- F. Department of educational guidance and social planning representing a unification of the work of the departments A, B, C, D, and E in terms of the pupils' individual and group living both within and without the school.⁸

He realizes that this realignment of courses might be difficult and suggests that instead of actual departmental reorganization,

⁷ Ibid, p. 158.

⁸ Departmental Reorganization for Better Education, February 16, 1933.

where this would be a too radical departure, a staff of high school teachers be organized into curricular committees representing the various social institutional units.

2. Methods of Revision

While there are several methods by which curriculum revision may be made, there are two which represent such opposing opinions that Lomax discusses them at some length.

One group hold that the present courses of study should be used as a basis for curriculum revision; the other group deems it best to throw aside all existing material and build on an entirely new basis. The first is usually thought of as the survey method--surveys are made of existing courses of study, textbooks, and other similar materials, in order to determine what is being taught. These data are analyzed as to frequency and as to position in the school curriculum, then criticized by a subject standard. Some material is eliminated, other material added, emphasis is perhaps changed, certain materials are reorganized and from this survey procedure, there is developed a course of study in keeping with the purposes of the curriculum. Lomax points out that while it may be said that this is only reworking old materials and may not show any objective evidence of meeting the demands of society any better than did the old courses, it does have the advantage of bringing about gradual change rather than a revolutionary upheaval which probably would not receive the support of our "slow-moving and conservative society." He points, also, to the fact that this procedure does ultimately bring into the curriculum "new elements of content which

have been thoroughly proved in real life."⁹

The second group holds to the objective or job analysis method in curriculum treatment; the course of study is made without reference to previously used or present material. Lomax asserts that here one finds release from tradition and formalism, and freer study of the actual needs of the student is made possible, but, that on the other hand, this method has definite limitations.¹⁰ In the job analysis method the techniques are not refined; it is assumed that transfer of training from the learning situation to the performing situation takes place; the method reveals what is being done but not necessarily what should be done in a given occupation.¹¹

Dr. Lomax urges state and local school systems to make studies of their graduates in order to find what school adjustments should be considered. He feels that no sound curriculum revision can be made without this careful investigation.¹²

In addition to a study of school curricula needs, in terms of the graduate, it is suggested that other studies be made. Dr. Lomax feels that such studies would probably reveal the fact that new types of schooling need to be developed. His questioning attitude is shown in these pointed questions:

⁹ Herbert Arthur Tonne, Problems of Teaching Economics, New York: Prentice-Hall, Inc., 1932, pp. 90-92.

¹⁰ Ibid, pp. 93, 99.

¹¹ Ibid, pp. 99, 100.

¹² "What Curricular Studies During 1934-1935," Journal of Business Education, 10:1, September, 1934, p. 7.

That new types of schools, or new kinds of business curricula within existing types, should be developed both for pre-employed, employed, and unemployed groups of men and women. With secondary education becoming more and more universal, with junior colleges rapidly multiplying in most states of the Union, and with senior colleges and graduate work continuing to expand and develop, what new type or readjustments of old types of business education are needed? What are the relative demands for vocational business education and general business education for the different groups?¹³

In this expansion with its widely varying groups, Dr. Lomax sees the probability that the mere expansion of the old set-up may not meet this challenge.¹⁴

3. Grade Level Considerations

Dr. Lomax believes that those who direct the formation of the high school curricula of today should keep in mind the fate that befell the academy. The list of courses offered shows that at the outset the academy was designed to contribute to the "real business of living," and that when this function was forgotten, the high school came into being. The conclusion is that if the high school, in turn, is not to be supplanted "it must bring to the masses a most beneficial kind of education, individually and socially."¹⁵

Dr. Lomax sees in the business education curricula a means of establishing this beneficial kind of education through the business-system-buying-public axis. He would have the business system composed of socially minded men and women engaged in marketing, managing, and financing business goods and services balancing one end

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Editorial, Journal of Business Education, 11:4, p. 7, December, 1935.

of the axis. He asserts that the school curricula can develop these two groups, which are overlapping so far as individuals are concerned, through a knowledge of business transactions by which the buying public contacts the business system. In order to develop intelligently efficient participants in these two business phases, Dr. Lomax believes the training might well begin with a general introductory course in business-economic-social relationships, belonging to the field of business science; and a general introductory course pertaining to business techniques and procedures, which are a part of the business life of every family, belonging to the field of business arts. He believes that these courses should be offered on the ninth and tenth grade level as universal business-economic education for all citizens as consumers or buyers.¹⁶

He considers it desirable to combine the elementary treatment of these phases in a few subjects consistent with the curriculum limitations; but that on the higher grade level, eleventh and twelfth, both the business science and business arts course should be given more specialized treatment for the development of occupational expertise on the part of those who select vocational careers within the business system. He is convinced that training for highly specialized, semi-professional, and professional degrees of expertise should be provided only on the college level. For the junior and senior colleges and graduate schools of business he would include in the business field such courses as economic geography, markets and marketing, business finance, business organization and management, business policies, personnel problems, government versus

¹⁶ "The Opportunities of Business Education," Journal of National Education Association, 23:4, April, 1934, p. 125.

business, business law, and principles of economics; in the business arts group he would include courses in general education techniques applicable to business as English, arithmetic, advanced typewriting, secretarial subjects, bookkeeping and accounting, general office clerkships, selling, and advertising.¹⁷

It is held that the occupational preparatory aim of secondary business instruction should be restricted to the upper school grades, the type of courses offered being consistent with the current employment situation, but that on the other hand, courses tending to develop better business intelligence in every consumer should be offered throughout the secondary level in keeping with the growing maturity and practical needs of the student.¹⁸ In this increased consumer intelligence, Dr. Lomax sees the bulwark of a "national program of economic rehabilitation."¹⁹

According to Lomax, the business curriculum as now organized, frequently provides a high school pupil with a better balanced schooling, in terms of major life interests and responsibilities, than does the conventional college-preparatory curriculum. He points out that the business curriculum is conceived as one in which a good general education is safeguarded, and to which is added the challenging educative realities of business life.²⁰

¹⁷ Ibid, pp. 125-126.

¹⁸ "Elimination of Children from Business," Journal of Business Education, 9:1, September, 1933, p. 7.

¹⁹ Ibid.

²⁰ "Public Misconceptions of Public Secondary School, Secondary School Business Education," Journal of Business Education, 8:9, May, 1933, p. 7.

Lomax believes that the curriculum of the school, regardless of the grade level, will be the outgrowth of the kind of social life the school believes to be desirable. If the standards have been wisely evaluated, the curriculum will be developed in accordance with student individual and group traits and tendencies. Skills will be developed, a high standard of business knowledge will be acquired, and a high plane of business conduct will have become the ideal.²¹

Dr. Lomax is consistent when he complains that:

A great difficulty with business curricula in common with most curricula is that they have become so specialized and piecemeal in their subject offerings that a large share of real business life has been pressed out of the subjects taught. Accounting tends to become a debit and credit skeleton of business. . . . Until we find time to move out of the bone-yard of business techniques into the redblooded business life of actualities, we shall never succeed in properly adapting business curricula, either of secondary school or collegiate grade, to the individual student's traits and tendencies Business life stands above its techniques and ever measures their true value.²²

4. Curriculum Making in Teacher Training Institutions

A somewhat critical attitude is adopted by Lomax in his appraisal of the curricula of teacher training institutions.

A radical reorganization of the curricula of teacher training institutions is demanded by a variety of conditions. Teacher training curriculum like others

²¹ "Adaptation of Curriculum Making to Individual Traits and Tendencies in College Students," National Business Education Outlook, First Yearbook National Commercial Teachers' Federation, 1935, pp. 138-140.

²² Ibid, pp. 142-143.

have been developed without clear definition of objectives and with no logical plan of procedure. The system of writing to discover what other schools are doing, when the re-vamping of old courses or the installation of new ones is under consideration, bespeaks the powerful influence of common practice and tradition.²³

In order to stimulate consideration of this problem, Dr. Lomax offers some principles which he considers basic in the construction of the curriculum for teacher training institutions. These principles are classified into three main groups: philosophical, sociological, and organization. Of the first group he says:

The philosophical principles have to do with the direction in which we propose to further the development of business education--whether we choose, for example, to encourage the point of view that business education must serve strictly the vocational objective, in the sense that its teaching materials are to be derived solely from, and organized entirely upon the basis of requirements of specific business occupation, or to encourage the point of view that business education must serve not alone the vocational objective but more particularly the place of vocational values in the whole range of life values as represented in social problems involved in the maintenance of life, the security of life, and the perpetuation of life.²⁴

Lomax says there are two important principles in the philosophical group--(1) business education has two phases, general business education and vocational business education; (2) business education is a component part of all education and of all school life.

Sociological principles pertain to what people actually think and do as they make choices of life values. As people make these choices, they determine the direction in which human endeavor advances. In conformity with these principles, business teacher

²³ "Curriculum Making in Business Education," Second Yearbook, Eastern Commercial Teachers Association, 1929, p. 110.

²⁴ Ibid, p. 107.

training curriculum making should be based on carefully collected, analyzed, and interpreted facts about social relationships which

Lomax specifies as follows:

Facts about relationships within a given business organization.
Facts about relationships among different types of business organizations, as those of banks, public utilities, retail stores.

Facts about the institution of business in relationship to the other social institutions, as those of home, church, government.

Facts about business education within itself.

Facts about business education in its relationship to the rest of education.

Facts about business education in its relationship to the business world.

Facts about personal qualities needed by people in these different kinds of business and educational relationships.²⁵

It is believed that facts regarding social relationships should be made the subject of careful study and that facts regarding job-analysis should likewise be scientifically collected and analyzed.

The facts regarding job-analysis would be of two main kinds:

Facts about commercial workers employed in specific occupations, as a job analysis of the stenographer.
Facts about business teachers engaged in specific types of educational service, as a job analysis of the bookkeeping teacher (includes both duty analysis and character-trait analysis).²⁶

The organization principles have to do with the actual construction of the curriculum itself; this construction should develop in accord with philosophical and sociological principles as set out above.

²⁵ Ibid, p. 108.

²⁶ Ibid, p. 109.

It is asserted that the teacher training curriculum should contain at least four principle subject groups--general or so-called academic group, commerce, education, electives. Also, that any subject that is required in the curriculum, such as principles of shorthand and similar business subjects, when taken in college by high school graduates, should carry credit toward the degree of Bachelor of Science in Education.²⁷

Since business education teachers are inclined to overspecialize in their particular teaching fields, Lomax proposes that a proper balance be maintained between requirements and electives in order that relationships with other important educational interests be attained.²⁸

General education subjects such as principles of education and principles of educational psychology should receive enough treatment to guarantee understanding and appreciation of principles. But the emphasis should be placed on principles of business education, the methods of teaching business subjects, and the use of specialized teaching materials. This emphasis will tend, so Lomax asserts, to professionalize American education.

It is Dr. Lomax's belief that students who are preparing for business practice and those who are preparing for business teaching should not be enrolled together in content courses. If the two groups are separated, the teacher-trainees can learn correct classroom procedures in connection with the subject matter of the course. This latter group should be in charge of a teacher who is especially

²⁷ Ibid, p. 110.

²⁸ Ibid, pp. 110-111.

trained for the work. Practice teaching, observation, and business experience, all under careful supervision, should be provided for teachers in training.

The curricular problem of business teacher training, Lomax asserts, is one of the "cornerstone" problems in the progress of American business education.²⁹ In connection with this problem he declares that a nation-wide study should be made of business teacher training institutions in order that a set of principles may be formulated for determining what teachers should be taught.³⁰

Summary

In order that schools may render a greater service by a unified, correlated and simplified program, new departments to supplant the old "subject" departments are proposed. These are: department of government, home economics, home education, recreational education, ethical education, and educational guidance and social planning.

There are two opposing methods of curriculum revision, the survey and the job analysis, each has certain values and each has some weaknesses.

A follow-up program of the graduate furnishes vital information as a basis for sound curriculum construction.

Research may reveal that new types of schooling need to be developed.

If the high school is not to suffer the fate of the academy, then it must meet the challenge of changing conditions, and of

²⁹ Ibid, p. 112.

³⁰ Ibid, p. 113.

individual and social needs through a vitalized curriculum.

General business courses in which all pupils should be enrolled, should be offered in the ninth and tenth grades. The more specialized courses should be offered not earlier than the eleventh and twelfth grades. Courses leading to highly specialized, semi-professional, and professional degrees of attainment should be provided only on the college level.

Attention seems to center in techniques many times widely removed from the realities of business endeavor--business life is more important than its techniques.

Business curriculum of the high school is richer and is better balanced than the conventional college-preparatory curricula.

A curriculum represents the kind of social life the school deems desirable.

A curricula for teacher training institutions should be based upon three groups or principles--philosophical, sociological, and organization.

Students who are preparing for business practice and those who are preparing to become business education teachers should be segregated as to the content courses in business education.

In this chapter four phases of curriculum construction have been discussed--a new plan for departments, methods of revision, grade level problems, and curriculum making in teacher training institutions.

The chapter which follows pertains to vocational and non-vocational training, an issue which has greatly influenced not only the business education curriculum but other elements of business education as well.

CHAPTER V

VOCATIONAL AND NON-VOCATIONAL EDUCATION

Although the question regarding vocational and non-vocational business education has been discussed somewhat in the two preceding chapters in connection with teaching problems and curriculum making, the issue assumes enough importance to be treated in a separate chapter.

1. Two-fold Nature of Business Education

According to Dr. Lomax's opinion, business education has a two-fold nature. First, there is general business education which comprises the business experiences of every man, woman, and child who, as consumers and buyers make use of business goods and services; second, there is vocational business education, which is made up of those business experiences that a person should possess if he is to be able to produce business goods or services as a wage earner. Lomax believes that when a certain subject is organized and taught as a subject that every one should know who utilizes business goods and services, then that subject should be regarded as predominantly a general business subject, and if a subject such as stenography is organized and taught as a subject that certain persons must know who wish to produce stenographic services as wage earners, then stenography is predominantly a vocational business subject, but that no business subject needs to be entirely general or entirely vocational.¹

¹ "Curriculum Making in Business Education," Second Yearbook, Eastern Commercial Teachers Association, 1929, p. 109.

In following this line of thinking Lomax agrees with Professor Dewey that in the industrial or practical arts the operation is often immensely specialized in detail. But, that back of the operation there lies a concentration of knowledge derived from many sources, an integration of many processes which originated in separate arts. As an example of this blending process, one is asked to consider the multiplicity of problems that have to be met by a city architect, problems not only of building but of lighting, heating, plumbing, ventilation, elevator service, perhaps electric power, decoration, and so on. It is pointed out that the architect may not be master of them all but that he has to know enough to coordinate the activities of specialists in three departments; that as with architecture so it is with business education--there must be a coordination of the numerous phases and techniques of the school learning.²

The old problem of vocational versus non-vocational seems not to disturb Dr. Lomax; he sees an inclusion of the vocational within the non-vocational field. He believes that each phase of business training has a definite and essential place in business education; that interrelated skills and techniques should not be made the sole basis of study, but only a part of a carefully organized body of learning. He views business education not as something made up of unrelated segments but as a vast yet integrated whole, from which there may emerge highly specialized skills built upon a knowledge of the functional side of business. He says:

²"The Economic-Social Crisis and the Public High School Teacher," Junior Senior High School Clearing House, Vol. 7, January, 1933, p. 290.

Business education must become comprehensively articulated with the entire range of business-economic affairs as typified in problems of production, marketing, finance, management, and consumption. Such a business education represents vastly more than the relatively minor techniques of bookkeeping, shorthand and typewriting, in subjects, the great majority of secondary-school commercial pupils are enrolled. The center of emphasis should be a study of the functional life of business itself so that every youth as he prepares for and participates in the rights and responsibilities of democratic citizenship may gain at least a rudimentary understanding and proper appreciation of the vital tasks of business management in providing people with want-gratifying goods and services.³

One finds that bookkeeping and accounting, stenography, typewriting, retail salesmanship, numerous forms of clerical practice, mathematics, science, English, social studies, are viewed as the "golden means" through which business is able to carry on its social mission in dealing with the problems of production, distribution, consumption and conservation of economic goods and services. However, the statement is made that the acquirement of this knowledge and the skillful use of techniques is not enough; the student must be taught to be business-minded in all his institutional, church, home, government, school-experiences and relationships.⁴

This educator further rationalizes the two-fold nature of business education by stating that we may of a certainty expect a certain proportion of our population to follow business pursuits. He says that these people should be doubly equipped educationally--they should have an understanding and appreciation of business as a basic

³ "The Opportunities of Business Education," Journal of the National Education Association, 23:4, April, 1934, p. 125.

⁴ "A New Conception of Commercial Education," Department of Secondary School Principals of the National Education Association, Bulletin, No. 25, 1929, p. 172.

social-economic institution which is designed to promote the general welfare, that in addition to this, these workers within the business system should be equipped with a sound technical education as owners, managers and employees.⁵

It is assumed that if America is to have the requisite number of men in the future who are properly equipped, as to skills and business knowledge, who have the proper social-economic viewpoint, who realize and appreciate that business cannot prosper at the expense of society, who exhibit true statesmanship in business which the economic and political work needs, then the schools must stress the training necessary to produce these desirable business leaders.⁶

2. Influence of Methodology

A course tends to become vocational or non-vocational primarily, Dr. Lomax asserts, because of one definite factor:

While some courses may be more conducive than others to the production of mechanically minded rather than book-minded pupils, either type of pupil, or both types, may result from any course, depending primarily upon the methods of instruction that are used. For example, so far as office machines instruction is concerned, the real education appears to be not in the mere operation of the machines, as such, although that much training is essential, but rather in the methodology employed in the application to business duties, through the machine, of needed knowledge of filing, English composition, arithmetic, and other kinds of subject matter learning. The need to use one's head or

⁵ "The American People Need Better Business Education," Journal of Business Education, 11:1, September, 1935, p. 31.

⁶ Ibid.

trained intelligence, is probably as great in a machinized office as in a non-machined office.⁷

Thus through selected methodology, expert use of office machines in handling the actual every day transactions of the business office becomes an attainable goal. Expert use of office machines usually involves much more than mere skillful manipulation of the machines themselves, essential as that is conceded to be. A comprehensive subject such as English or science also may relate to both vocational and non-vocational activity depending upon the emphasis employed in the instruction.⁸

3. Relation of Vocational Education to Other Aspects of Education

Turning from these specific pronouncements, we find Lomax taking an overview of the entire educational program--pointing out with a fine degree of reasonableness the part vocational education should have in a well-integrated, well-balanced scheme.

In the same sense that business life is a component part of all organized social life, as the business side of home life, of church life, of governmental life, of organized recreational life so should business education be viewed as a component part of all organized education of school life. Education will contemplate the whole of life for every child, poor or rich. Vocation will be a part of this whole. An active participation in community affairs will be another part. A rich living in the more private aspects of life will be still a third part. All three are essential.⁹

Another relationship is revealed in the following statement:

⁷ "Modern Methods of Teaching Business Subjects," Fifth Yearbook Eastern Commercial Teachers Association, Vol. 2, 1932, p. 214.

⁸ "What is a Sound Philosophy of Business Education," Business Education World.

⁹ "Curriculum Making in Business Education," Second Yearbook Eastern Commercial Teachers Association, 1929, p. 109.

One of the requirements of our American democracy is that every citizen be well-equipped to meet his civic obligation as an efficient and socially minded occupationalist.¹⁰

It is also pointed out that it is of vital social concern that the vocationalists within the business system should be carefully selected and well-educated for their careers, both previous to and in connection with their employment. He says:

This vocational preparation should always be wisely articulated with, and made a functional part of, the entire educational process and pattern, with the living values of the relevant arts and sciences of the general business system.¹¹

4. Administrative Responsibility and Administrative Problems

Dr. Lomax feels that there are challenging issues in business education, which should be the mutual concern of educational sociologists, general administrators of education, business leaders, economists, and those immediately responsible for the administration and teaching of programs of business education in secondary schools and universities. These groups should be mutually concerned because business and the school as social institutions have been a very fundamental part, both as to causes and effects, of the tremendous social upheavals which have been taking place with distressing results during the last few years.¹²

¹⁰ "The American People Need Better Business Education," Journal of Business Education, 11:1, September, 1935, p. 31.

¹¹ Editorial, The Journal of Educational Sociology, 8:9, May, 1935, p. 513.

¹² Ibid.

In order to alleviate this condition he asserts that business education must assume its share of the responsibility. He is confident that this service can be rendered by this department for he says there is no phase of education which is more conducive to good citizenship in a democracy than that of adequate business or economic intelligence on the part of every individual as he buys and uses the goods and services made available by business enterprise.¹³

Greater headway will be made, this broad-minded educator believes, if school administrators place the chief, though not exclusive responsibility, upon home economic teachers to take the leadership in developing business home education; upon economic teachers in developing business economics; upon science teachers, business economic geography; and so on through other similar general education subjects. These groups of teachers will be expected to collaborate with the business teachers in establishing a working basis for the relating of the general education courses to business experience in a non-vocational sense.¹⁴

Nevertheless, Lomax is convinced that business teachers having sufficient training, can and should serve both the vocational and general educational objectives of business education.¹⁵ However, teachers and administrators are warned to be careful not to claim business-economic import for vocational subjects, such as shorthand and bookkeeping, unless such claims are based on scientific research,

¹³ Ibid, p. 514.

¹⁴ "A Vital Decision Faces Business Education," Journal of Business Education, 9:6, February, 1934, p. 7.

¹⁵ Ibid.

and likewise that it is foolish to attempt to distort teaching materials to meet this double purpose.¹⁶

The attention of school administrators and business education teachers is directed to an announcement from the United States Office of Education regarding educational attainment of any one twenty-one years of age as being very significant--the average American has completed an elementary school education, only about seven per cent have (1933-1934) had college work or are college graduates and only twenty-five per cent have had training in high school.¹⁷

Because of these facts as well as others, Dr. Lomax maintains that those who assume the responsibility for general school policies should recognize that the distinctive and primary function of business training in the secondary school level is vocational. He believes that vocational work, as such, should be offered in the junior and senior years of the high school courses.¹⁸

While Dr. Lomax would have business educators note the new trends, such as the trend of business vocational specialization being made at an older age, much of it on the college level, he would also have them recognize the fact that a new trend does not represent a prevailing situation but that it may be only an indication of what may be prevailingly true in the future--even many generations hence.

¹⁶ Ibid, p. 7

¹⁷ "What Is a Sound Philosophy of Business Education," Business Education World, No. 3, November, 1935, p. 198.

¹⁸ Ibid

The major need and contribution of vocational education, including business education will continue to be below the college level for a long while because, as pointed out above, the great majority of American youths do not as yet go beyond the secondary schools, and also because the problem is exceedingly complex, it is not likely to change strikingly within a short period of time. Since the statistics from the United States Department of Education are undeniably true he feels that some of our educators have erred in shying off from the vocational objective and that such teachers need a broader conception of business vocational education.¹⁹

This socially-minded educator would have a person happy in his vocation--he believes that every one has a right to whatever joy the most fitting work can bring. He believes that the school administration can aid in furthering this premise, and should. In this connection, he declares that schools once having adopted the vocational concept, should broaden this concept by going beyond its confines and enlisting the support of citizens in a better distribution of work now available, in expanding established types of work and in creating new types of work--in other words, the school should assume some measure of responsibility for the employment of its graduates.²⁰

It is apparent that Lomax is forthright and does not equivocate on this question. His position on this important issue is summarized as follows:

¹⁹ Ibid, p. 293.

²⁰ "The American People Need Better Business Education," Journal of Business Education, 11:1, September, 1935, p. 31.

We believe most decidedly that the truly distinctive place of business education in this total plan²¹ of American school education is that which has to do with the vocational objective.

Note that Lomax does not say exclusive phase but that he does emphasize that this is the distinctive phase. This pronouncement leads to his analysis of another administrative problem. He asserts that when business teachers cease to know and teach business as it is vocationally organized and practiced, then the teachers will have ceased being distinctly business teachers. He again stresses his position by saying that when business education administrators give up the vocational concept, the need for a separate commercial department in the secondary schools and collegiate schools of business will probably have ended. He sees this as a possible but not probable eventuality, but if this change should take place, business teachers would have to rehabilitate themselves vocationally for new teaching schedules.²²

With commendable daring as well as fidelity to business education he says:

Such a happening would most likely lead to the salvation of social studies departments, but it would likewise lead to the extinction of commercial departments.²³

²¹ "A Bill of Rights for the New Age," Journal of the National Education Association, 23:7, November, 1934, p. 205.

²² "What Is a Sound Philosophy of Business Education," Business Education World, 16:4, December, 1935, p. 291.

²³ Ibid, p. 292.

5. Distributive Occupations

A Phase of Vocational Business Education

Dr. Lomax believes, with Frederick G. Nichols, that training for the distributive occupations belongs in the field of business education and cannot be properly classified as a part of one of the other fields of vocational training. He is in accord with the plan of centralizing in the Chief of the Business Education Service, federal responsibility of dealing with national problems of business education, in all types of schools, whether federally subsidized or not. He feels that this coordination will tend to provide a fairer appraisal of business education as a whole relative to its vocational and non-vocational use-values. He is confident that those states which followed the federal plan of coordinating all phases of business education, vocational and non-vocational in one department have taken a forward step which he would like to have other states follow.²⁴

Summary

The summary for this part of the study may well be stated, in part at least, in Dr. Lomax's own words:

Let business educators by all means, envisage the broader social-economic possibilities of business education, but in so doing let them never forget that business education, as such, is uniquely vocational in its character and chief contribution, whether they look to the future or contemplate the past.²⁵

²⁴ "Distributive Occupational Education as a Phase of Business Education," Journal of Business Education, 13:3, November, 1937, p. 7.

²⁵ Editorial Comment, Journal of Business Education, 9:7, March, 1934, p. 7.

A complete education is composed of two major complementary phases--vocational education and general education. Business education may well concern itself with both phases since there is a business side to most, if not all, human experience if viewed broadly in terms of organized social life.

It is essential to know thoroughly certain techniques such as shorthand, bookkeeping, selling, telephoning, as well as many others; but knowing them merely as techniques is not education as a process of continuous growth in the power of making satisfactory adjustments.

In working out the curricula for a non-vocational business course, for example, home education, school administrators would do well to place joint responsibility in a curriculum committee composed of representatives of both home economics and business education.

Getting other teachers to see and appreciate the significance of their subject relationships and techniques to business provides a definite challenge to the business teachers.

Several states have followed the federal plan of coordinating all phases of business education--vocational and non-vocational, in one department. Training for distributive occupations under the George-Deen Act, which is clearly a phase of business education, should be definitely assigned to such a department for administration and supervision.

School administrators and business teachers in general, need a much broader conception of business general education, as well as a much broader conception of business vocational education upon which to formulate a sound philosophy of business education--a minimum essential which business education must have before its professional leadership in American national educational and business organizations can be firmly and enduringly established.

This chapter has dealt with the two-fold nature of business education, the influence of methodology upon these two types-- vocational and non-vocational, the relation of vocational education to other aspects of education, administrative responsibility and some of the administrative problems of vocational and non-vocational training, and the place the field of distributive occupations holds in vocational business training. The next chapter deals with the teacher, his training, and his connection with the problems discussed in this chapter and in chapters three, four and seven of this study.

CHAPTER VI

THE TEACHER

The teacher occupies a key position in the educational system and in the educational process. What the teacher says and does is to Dr. Lomax as important as what he teaches by word of mouth. The teacher's preparation both prior to assuming his professional responsibilities and after he enters service loom large in Dr. Lomax's point of view.

Because Dr. Lomax's professional connections have been and are so largely related to the classroom teacher, it is important to understand his views concerning the classroom teacher.

1. Responsibilities

While Lomax does not hold that the teacher should become the doctor of all the social ills and economic maladjustments that confront the world today, he does believe that the teacher, because of his training and knowledge, can and should contribute to the solution of certain problems.

A teacher, Lomax says, should not only be interested in the problem of educational finance but he should be prepared and willing to help solve this problem. Its solution affects vitally the present and future well-being of countless numbers of children and adults. He declares that each teacher is committed to doing his part in fulfilling the democratic ideal of free and universal public education.

He agrees with Horace Mann that:

Under our republican government it seems clear that the minimum of this education can never be less than such as sufficient to qualify each citizen for the civil and social duties he will be called upon to discharge.¹

Through a study of the issues which prevent amity among nations, Dr. Lomax believes that world peace may be encouraged or brought about. He asserts that a serious study of economic and commercial geography should develop in teachers and pupils a profound appreciation of the inter-dependence of the nations. And, that through this appreciation a concept of world peace can be fostered. Upon the business educator, he places this great responsibility:

In the various business subjects that directly deal with international business affairs, it is obvious that teachers of business have much to contribute to education for peace.²

In order to further this concept more effectively, business teachers should have a wide knowledge of business education in other parts of the world, as well as in this country, for in Lomax's opinion, business and education are world-wide in their scope and relationships.

Dr. Lomax observes that too often teachers think almost wholly in terms of subject matter and mere school keeping and not in terms of social responsibility. Administrators and teachers must together study the social problems until they become "fired with a zeal for the cause of a better social day."³

The public-high-school teacher has a definite obligation with respect to the present economic-social crisis, that he cannot escape either his individual or group responsibility. He says "Education

¹ Joy E. Morgan, "Horace Mann, His Ideas and Ideals," National Home Library Foundation, Washington, D. C., 1936.

² "Education and Our National Life," Journal of Business Education, 13:2, October, 1937, p. 7.

³ "The Economic-Social Crisis and the Public High School Teacher," Junior-Senior High School Clearing House, Vol. 7, January, 1933, p. 288.

must always be, as it has always been, a partner with social change and social progress."⁴ He regrets the fact that the usual teacher is not broadly and deeply educated for the discharge of his educational duty towards the creation and maintenance among his students of economic understanding, enlightened social vision, and creative insight into human betterment. He contends that teachers have tended to be too narrowly prepared for their social service.

Business education teachers are admonished to learn as much as they can about many occupational services, in order that they may be able to "guide students wisely into successful and satisfying life careers."⁵ In order to cope with this problem of guidance Dr. Lomax believes that one of the most important duties of the teacher is to study his pupils as to their tremendously complex individual differences. He says that only by means of this study can the teacher guide and stimulate intelligence and understanding in the pupil in his learning. "Know your pupils is the first commandment of successful teaching."⁶

Dr. Lomax asserts that teachers should cultivate closer cooperation with business leaders--that teachers miss a valuable opportunity when they fail to invite the principal business men and women of the community to the school to study at first hand what is being done in business education. The teacher should also focus attention upon the fact that careers in business education, as in

⁴ Ibid.

⁵ Editorial Comment, Journal of Business Education, 9:2, October, 1934, p. 30.

⁶ "In Our Opinion," Journal of Business Education, 9:1, September, 1933, p. 7.

all worthwhile life pursuits, require lifelong study.⁷

Lomax's idea regarding what he considers one of the chief responsibilities of the teacher is summarized as follows:

In this most intricate and consequential problems of educating for tomorrow the most important thing of all would seem to be creating in the individual student the power of knowledge and character by which to forge for himself a place of successful adjustment in that new world of transpiring events in which he must live and of which he should make the most in the way of self-improvement and social good. It is not the supreme task of present-day teachers to build the world of 1960-1975, after their own image, but to enable their students themselves to become strong and wise as BUILDERS OF A NEW AGE according to the needs and requirements which will characterize their tomorrows.⁸

2. Development of Correct Viewpoints

Dr. Lomax says that "if we think of democracy as a form of social organization in which its citizens as individuals and as groups endeavor to work with one another on the basis of a recognition of mutual rights and interests," then there should be developed a sound classroom philosophy based on the peculiar origins and developments of American democratic ideals. He feels that even though it is well to permit and encourage discussions of various social philosophies held by various leaders in social thought and action, that classroom teachers should "live and teach a philosophy of education and life which is sensibly in keeping with our best democratic ideals."⁹

⁷ "Education and Our National Life," Journal of Business Education, 13:2, October, 1937, p. 22.

⁸ Editorial, Journal of Business Education, 10:2, October, 1934, p. 30.

⁹ Editorial Comment, Journal of Business Education, 11:3, November, 1935, p. 7.

Lomax would have all teachers recognize that this is a scientific age and that the teacher should be able to apply logical principles in seeking to confirm or elucidate any truth--he should apply scientific method, the 'expert pursuit of knowledge' to his undertakings. He says:

In the spirit of his scientific age each and every business teacher should have understanding and appreciation of the nature and significance of scientific method in the build- of our Western civilization.¹⁰

He believes with Bertrand Russell that "The essence of scientific method is the discovery of general laws through the study of particular facts."¹¹

In order to find these particular facts, Lomax urges the classroom teacher to keep in contact with leading business firms and to study thoroughly and critically the procedures and practices which they purport to teach in their classrooms. The teacher should have definite contact with the business realities of his community. In no uncertain terms he asserts that unless the teacher so informs himself that he will be mercilessly condemned as a teacher of business ignorance, rather than praised as a teacher of business enlightenment.¹²

In comparing the scientific outlook of business men and business educators, Dr. Lomax has this to say:

We wish to contrast the scientific outlook of business men and of business educators by pointing out that business on

¹⁰ "Business Education in a Scientific Age," Journal of Business Education, 8:2, October, 1932, p. 13.

¹¹ Russell Bertrand, The Scientific Outlook, New York: W. W. Norton and Co., Inc., 1931, p. 65.

¹² "What Kind of Business Do You Teach in Your Business Subject," Journal of Business Education, 11:2, October, 1935, p. 7.

the one hand, has tended to make newly tested knowledge techniques the basis of thought and action and business education (of our formal schools) on the other hand, has tended to entrench comparatively old knowledge and techniques.¹³

In the field of actual business he has found in many individual cases an attitude of progress, an attitude of appraising business with a determination of intelligently making needed adjustments in order to cope successfully with new and unexpected conditions. This same attitude, so Dr. Lomax believes, should be found in education.

For fear his position may be misunderstood, Dr. Lomax emphasizes the fact that in his opinion business teachers, as a group, are probably as progressive in keeping their subjects in line with practical life experiences as are the other groups of American teachers, that business teachers have made commendable progress in becoming scientifically minded towards their teaching materials and methods of instruction.

Probably there is no single group of secondary and college teachers in this country that is more professionally alive to their responsibilities and opportunities of service than is the business-teacher group.¹⁴

In this connection he points out that laboratories are expensive to maintain and demand a much higher degree of professional cooperation among business educators, but that ultimately such laboratories will be conducted independently of the manufacturers and publishers. He makes this significant statement:

¹³ "Business Education in a Scientific Age," Journal of Business Education, 8:2, October, 1932, p. 13.

¹⁴ Editor's Foreword, Third Yearbook, Eastern Commercial Teachers Association, 1930

If business educators can demonstrate their leadership in the use of scientific method in formulating sound principles of business education, and in applying these principles to the evaluation of business practice and of business teaching, such educators may reasonably expect the financial backing of individual business men of wealth, of associations of businessmen, and of research foundations.¹⁵

Dr. Lomax further believes that the problem of an occupational evaluation of teaching materials of business education is too extensive for individual business educators. He contends that the professional organizations should make such investigations as are needed to bring these teaching materials and methods of instruction in line with best occupational standards and not look to any other agency. Educators must come to realize that this responsibility does not rest primarily with the publishers of textbooks.¹⁶

It is pointed out that no part of the educational program provides a richer opportunity to practice a philosophy of education, thought of in terms of making school education articulate with actual community life activities, than business education. School administrators should realize this opportunity and obligation.

In order for school administrators to gain the correct viewpoint regarding business education, Dr. Lomax declares that they must come to understand and appreciate changing business requirements with relation to education. They must examine their business education program in terms of their own experience as executives; they must evaluate the whole school program of studies in terms of its contribution to economic self-sufficiency on the part of public

¹⁵ "Business Education in a Scientific Age," Journal of Business Education, 8:2, October, 1932, p. 14.

¹⁶ Ibid, pp. 16, 24.

school students. In addition, they must come to realize the service rendered by business education in "democratizing social and educational opportunities for the well-being of the masses."¹⁷

3. Preparation and Improvement

Reference has been made in other chapters of this study regarding the teacher; hence, little needs to be added in this section pertaining to the teacher preparation and improvement.

Dr. Lomax is convinced that courses for college teachers of business can be organized and administered to excellent advantage in colleges and universities that have both a school of business and a department of education. There is an increasing recognition of the need for graduate courses in education as well as in subject matter. Likewise, college teachers and administrators are more and more comprehending the need for understanding not only what is taught and why, but also of understanding student-learning processes, and of discovering how students can best be stimulated and directed in the learning of college subjects.

The graduate preparation of college teachers should be both in subject-matter courses and in education courses. This means that the preparation of college teachers of business in a university center will most likely more and more become a joint responsibility of the school or department of education and of the school of business.¹⁸

Through his experience with the cooperative idea at New York University, he has come to realize that only as a university school

¹⁷Why Public School Administrators Should be Competent Leaders of Business Education," Education: 55:7, March, 1935, p. 413-416.

¹⁸"Preparation of College Teachers of Business," Third Yearbook, Eastern Commercial Teachers Association, 1930, p. 222.

of education and a school of business successfully function together in a business teacher-training program can there result best preparation of college teachers of business.¹⁹

Dr. Lomax agrees that teachers who complain of the lack of prestige they have as professional people are right in their estimate of the real state of affairs. He says it is true that teachers have smaller salaries, lower social standing, and less power and prestige in the community than members of other professional groups, but that, while many things contribute to this state of affairs, the chief cause is the difference in training required for the teaching profession and for other professions. He says:

Until teachers, as a class, put themselves, or are put, on a thoroughly professional basis, they will not enjoy higher status in the community than they do at present. Hence, people must prepare to teach for life, for adequate preparation would be unreasonable if there were going to be only a short period of practice. Yet, thorough preparation is the only way in which genuine professionalization can be achieved, for the low standards of some tend very strongly to pull down the status of the rest.²⁰

Dr. Lomax believes that the teacher's improvement while in service is of major importance. He is of the opinion that teaching experience will improve the alert teacher's ability as much as the initial professional preparation. In addition to making improvement through the process of teaching he urges that teachers do some form of university graduate work, through well chosen courses the teacher keeps from settling into a rut. The alert business education teacher also improves his work through attendance of

¹⁹ Ibid.

²⁰ _____ with Herbert Arthur Tonne, Problems of Teaching Economics, New York: Prentice-Hall, Inc., 1932, p. 322.

professional meetings or conventions, through conferences with his supervisor, and through visits to other teacher's classrooms, to business offices and industrial plants. Lomax advocates research work as one means of professional advancement. This work can be handled as graduate seminar courses; the classroom itself offers a wealth of laboratory materials.²¹

This ardent advocate of research says that "research is of value to the instructor if for no other reason than that it makes him aware of the teaching process he is undertaking."

Travel is cited as a mode of education for the teacher who has the time and the money for it. Reading is the avenue open to all teachers regardless of salary level. Lomax would have the teacher read widely but at the same time make wise selection from the numerous books and periodicals whose subject matter relates to his field.

Another excellent means of improvement is provided by actual business experience. He advocates business experience for all business education teachers.²²

In concluding his suggestions regarding means of teacher improvement Dr. Lomax says:

Finally, the teacher must not forget that recreation is possibly the best means of self-improvement. Unless he makes definite provision for wholesome relaxation from the strain to which he is subjected, the pressure of work which is constantly demanding the time of every conscientious teacher is likely to make him forget this need.²³

²¹ Ibid, pp. 335-337.

²² Lecture Notes, Summer Session, 1938, Oklahoma Agricultural and Mechanical College.

²³ _____ with Herbert Arthur Tonne, Problems of Teaching Economics, New York: Prentice-Hall, Inc., 1932, p. 338.

Summary

The business education teacher should not be interested solely in presenting subject matter but should participate in the whole life of the school and should be definitely associated with various activities of the community.

Teachers are social service workers, not mere pervayers of economic skills and knowledge.

The teacher, because of his training and knowledge, can and should contribute to the solution of certain problems. Among these are: school finance, world peace, the social-economic crisis, and pupil guidance. In addition to assisting with these problems he must prepare his students to be "builders of a new age."

The teacher should live and teach a philosophy of life which is in keeping with democratic ideals.

Professional organizations should assume the responsibility for the scientific evaluation and selection of teaching materials.

A teacher's improvement while in service is as important as his initial professional preparation. This improvement comes through university graduate work, attendance at professional meetings or conventions, research work, travel, reading, business experience, and recreation.

This chapter has dealt with the teacher as to his responsibilities, his point of view, his preparation and means of improvement. The chapter following deals with business--its influence, its relation to business education, and its use of the scientific method.

CHAPTER VII

BUSINESS RELATIONSHIPS

Business is one of the great social institutions of this present era, but as Dr. Lomax points out, such was not always the attitude on the part of people in general; for whether the theory of the mercantilist or the theory of laissez-faire held sway, business was looked upon as dangerous to society and should, therefore, be rigorously controlled or completely left alone. He states that it is only recently that these ideas regarding business have changed. He believes that this change has brought about by the increasingly socialized attitude of business and by a better knowledge on the part of the consumer-public of the many contributions being made by business to the general welfare.¹

1. Influence Exerted by Business

It is the opinion of Dr. Lomax that business occupies a significant place in the social order because, in a large measure, it has developed on a scientific basis. He is also of the opinion that because of this fact business has tended to exert a definite influence in directing the trends in business education.

Science is tested knowledge, which is systematized into its set of guiding principles by which changing practice may be evaluated, trends may be indicated, and future developments may be directed in line with the ideals of our democratic society. The science of business, as one of the primary social institutions of our modern life, is economics or the science of wealth. By the principles of this science, the

¹ _____, Herbert Arthur Tonne, Problems of Teaching Economics, New York: Prentice-Hall, 1932, p. 319.

teaching materials of business education will ultimately be systematized, evaluated, and given needed direction in line with the key position which business occupies in American social life.²

All the great nations of the earth, both past and present, have had meaning and vitality only in relation to their economic substructure. It is through the creation of this substructure that business leaders have tended to play a significant part in the evolution of every great civilization.³

Lomax asserts that business leaders have come to occupy a strategic place in the present-day councils of the nations, and that they have attained this enviable place, as was pointed out in another connection, through the recognition and use of applied science as a power, by means of which human adjustments can be made in changing economic conditions.⁴

He applies these ideas to everyday matters by declaring that the level of civilization, of any individual, or any nation, is determined by the character of the occupations engaged in as the "sustaining element" from day to day. The importance of this philosophy, Dr. Lomax believes, should inspire business educators to

²"Business Education in a Scientific Age," Journal of Business Education 8:2, October, 1932, p. 13.

³"Why Public School Administrators Should Be Competent Leaders of Business Education," Education 55:7, March, 1935, p. 412.

⁴"Business Education in a Scientific Age," Journal of Business Education 8:2, October 1932, p. 25.

bring business education to a high level of substantial educational and general social progress.⁵

Dr. Lomax, being firmly imbued with the socio-business concept, declares that business has social characteristics which carry serious responsibilities. He says:

A business man or woman has a right to conduct a business establishment only as long as that right is exercised in the best interests of the customer. The food sold at the grocery, the medicine at a drug store and so on through the long list of things which people need--should represent economic goods and services which should promote the health, happiness and general welfare of every man, woman, and child. "Let the seller beware" must increasingly replace "Let the buyer beware" as the twentieth-century standard of business.⁶

It is pointed out that business activities provide one of the most powerful correlating social forces present in the world today, regardless of the size of the group affected--local community, national, international.⁷

Another constructive element is present in business. Lomax believes that business is a stimulating factor in education, for business life makes exacting demands on formal education. This is illustrated in English as applied to letter writing, in arithmetic to retail selling, in economics to marketing problems.⁸

⁵Ibid, p. 26.

⁶"The Opportunities of Business Education," Journal of National Education Association 23:4, April 1934, p. 125.

⁷"Correlation of Subject Matter in Secondary Schools," Fourth Yearbook, Journal of National Education Association, Department of Classroom Teachers, 1929, p. 158.

⁸Ibid, p. 160.

It is pointed out that since business, as the chief organized means of gratifying human wants, forms the groundwork of our civilization, that business education should make a serious study of the social mission of business, and of the relationships that exist between business and the other primary social institutions. Attention is also called to the fact that "business as a single agency does not seek alone to perform the gigantic task of gratifying human wants, but it does seek to do so in cooperation with other social agencies"--the school, the church, the home, organized recreation, and government.⁹

2. Relation of Business to Business Education

Now in order to achieve this desirable result noted above, it is evident that business men and women must become more and more intelligent about the social-economic nature and obligations of business and must become thoroughly imbued with those ideals of business conduct that will make for the common good. The profit making motive is not decried, for this very force, according to Dr. Lomax's belief, can be made to serve all parties concerned.

The business system, as organized and operated in this country, is mostly based on the profit-making motive. Those who work within the business system as owners, executives, office clerks, salespeople, secretaries, accountants, or what not, should be men and women possessed of those higher qualities of thinking and conduct which tend to place the profit-making function on a plane conducive to human welfare. One way to help insure this desirable type of business practice is to educate the masses of ultimate buyers of business goods and services in the nature and obligations of business as a primary social institution in a democracy.¹⁰

⁹ "A New Conception of Commercial Education," Bulletin of the Department of Secondary School Principles of the National Education Association, Bulletin No. 25, 1929, p. 171.

¹⁰ "The Opportunities of Business Education," Journal of the National Education Association, 23:4, April, 1934, p. 125.

As a practical example of the manner in which this concept would operate, Lomax says that if bank depositors become more intelligent about the services which banks should render their depositors, the bankers will tend to rise to a new level of social performance. And thus:

Business Education in the learning and life experiences of its pupils, will become essentially a process of growth in the realization of a better business life to aid in the achievement of material welfare, intellectual power, and spiritual values.¹¹

Apparently Dr. Lomax never loses sight of the fact that economic and educational theory is valueless, and social institutions useless unless they contribute in a definite, concrete way to the well-being of the common man as a complete entity. He believes that business and business education should serve as strong social forces in "democratizing life's best advantages for the masses."¹²

This educator believes that the business recovery program must be essentially an educational program, that is, if wise and permanent reconstruction is to be established. He feels that our government has, through our vastly significant public-school system, an instrument for the fulfillment of this far-reaching educational program. Our schools are dedicated, as Lomax says, to the democratic ideals of promoting the civic intelligence and vocational competency of each and every citizen regardless of race, creed or social status.

¹¹ Ibid.

¹² "Why Public School Administrators Should Be Competent Leaders of Business Education," Education, 55:7, March, 1935, p. 412.

In constructing a 'habitation of a sound economic life' in which civic intelligence and vocational competency are important parts, Dr. Lomax declares that business education should occupy a key position. In his opinion, W. B. Donham, dean of Harvard Graduate School of Business Administration, did not exaggerate when he said, "It may well be that upon the wisdom of future American business policies will rest the responsibility for the continuance of Western civilization." In order to more nearly insure that these policies be of the most beneficial type, he is firmly convinced that the social-economic nature of business should be stressed in all levels of business education.¹³

Dr. Lomax urges close collaboration between local business leaders and school leaders. He sees the necessity for this in the fact that local business leaders do not have a correct understanding of what the local schools are trying to accomplish in business education; and school officials and business leaders do not have an adequate understanding of the conditions, problems and requirements of business concerns of the community. He makes the practical suggestion that joint meetings of these two groups be held and that both the broader phases and special phases of business education be discussed.¹⁴

Businessmen now see that the intricacies of the business world are quite as technical as those of the worlds of law and medicine,

¹³ "The Opportunities of Business Education," Journal of the National Education Association, 23:4, April, 1934, p. 125.

¹⁴ Editorial Comment, Journal of Business Education, 11:6, February, 1936, p. 7.

and that an understanding of these intricacies are quite as essential to the business man as an understanding of anatomy and chemistry. For this reason young men planning business careers are turning to the schools of business administration for a study of economics, finance, personnel management, and related fields.¹⁵

Dr. Lomax believes that young men, in their study of economics, will gain an insight into the interrelationships of men and women in their efforts to obtain the necessities, comforts and luxuries of life. They will get a better concept of the "methods by which men acquire and dispose of wealth," and of the "social problems arising from their wealth-setting and wealth-using activities," for the "economist discovers how goods are produced, how they are distributed, and what effect the consumption of these goods has upon society. His viewpoint is a social one, and his problem that of making society as a whole more prosperous."¹⁶

3. Business and Scientific Method

6 Dr. Lomax calls attention to Bertrand Russell's assertion that "America is leading the way in the transition from science as knowledge to science as a set of practical habits."¹⁷ It is held that in this respect probably no social institution has made greater

¹⁵ _____ with Herbert Arthur Tonne, Problems of Teaching Economics, New York: Prentice-Hall, Inc. 1930, p. 320.

¹⁶ Ibid, pp. 3-4.

¹⁷ Charles A. Beard, "Editor, Whither Mankind," New York, Longmans, Green and Co., 1930, p. 66.

practical application of science, as carefully tested knowledge, and of scientific method as a highly developed and organized means of intellectual effort, than has American business in its hundreds of research laboratories financed at a cost of great sums of money.¹⁸

In his study of American business Dr. Lomax finds that this scientific method is being used as a means of dealing with changing conditions. He cites as one illustration the astonishing development of the automobile industry, which he asserts is a triumph of intelligent use of scientific method as a means of improvement. In Edwin P. Norwood's report,¹⁹ Lomax discovered that the use of scientific method in appraising actual assembling operations resulted in the decrease in average labor time from nine hours and fifty-six minutes to exactly two hours.

He points to Edison's patient, exacting, and long-time examination of thousands of possibilities in the effort to find a solution to his problem of finding a cheaper and more abundant source of supply of natural rubber. He finds cause for admiration in the scientific method being employed in the field of advertising where experts are developing methods for pre-determining the effectiveness of different types of copy, and of finding out which particular pieces of copy, out of a number that have been prepared, will be most likely to produce sales. This is evidence that "business is endeavoring to meet changing business conditions on the basis of facts carefully ascertained and evaluated by scientific method."²⁰

¹⁸ Ibid.

¹⁹ Edwin P. Norwood, Ford Men and Methods, Garden City, New York, Doubleday, Doran and Co., Inc., 1931, p. 93.

²⁰ "Business Education in Scientific Age," Journal of Business Education, 8:2, October, 1932, p. 14.

Because of his high regard for the scientific approach, Dr. Lomax has in turn high regard for business as it attempts to settle its problems through carefully planned research rather than through the costly unscientific methods used in the earlier days of business.

Summary

The increased socialized attitude of business, evidenced in its many contributions to the general welfare, has greatly influenced the opinion of the public regarding the nature of this institution.

Scientific method used in business is influencing the type of teaching materials being developed.

In creating the economic substructure of any period, business leaders have had an important part in advancing civilization.

The level of any civilization is determined by the types of occupations predominant in that society.

Because business exerts such far-reaching influence, it carries serious responsibilities.

Business activity provides a correlating social force. It becomes a stimulating factor in business training through its demands on formal business education.

Business seeks to cooperate with the other social institutions in supplying those things deemed essential in modern society.

This chapter has dealt with the tremendous influence that has always been exerted by business, with the relations of business to business education, and with the scientific method as employed by business in attaining its present position. It is followed by the summary and conclusions for the entire study.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

Some of the more important phases of Paul S. Lomax's philosophy concerning business education are given here as a brief summary of this study.

Many of the more significant ideas occur again and again throughout the many publications and declarations of Dr. Lomax, and therefore can definitely be said to represent his point of view with reference to the problems of business education.

Dr. Lomax believes that the educational work of the public school system is one of social purpose; in this purpose two objectives are dominant--training for citizenship in a democracy, and developing occupational efficiency.

A complete education is composed of two major complementary phases--vocational and general education. If viewed broadly in terms of organized social life, business education may well concern itself with both phases since there is a business side to most, if not all, human experience.

Dr. Lomax is firmly convinced that the primary objective of business education is vocational, and that if this objective is abandoned business education, as such, will cease to exist. The command of the fundamental techniques of the several vocational business subjects is closely related to the primary function. Character development as an additional objective should be a part of every course.

It is essential to know thoroughly certain techniques such as shorthand, bookkeeping, selling, filing, as well as many others; but knowing them merely as techniques is not education as a process of continuous growth in the power of making satisfactory adjustments.

Hence, the ability to apply and to adapt these techniques to various situations and the ability to determine when they are essential is as important as the techniques themselves.

Material used in business training should deal with practical business situations and with those processes involved in occupational activity. For this reason its selection should be based on activity analysis procedures.

The teacher occupies a key position in the educational system and in the educational process. The importance of the teacher's preparation both prior to assuming his professional responsibilities, and after he enters service, can scarcely be overestimated.

The business education teacher should not be interested solely in presenting subject matter. He should participate in the whole life of the school and should be definitely associated with various activities of the community. Too often teachers think almost wholly in terms of subject matter and mere school keeping and not in terms of social responsibility. Administrators and teachers must together study the social problems and contribute to their solution.

The high school curriculum, according to Dr. Lomax, may be unified, correlated, and simplified by eliminating the "subject" departments and establishing new departments related to the great social institutions. In this type of organization, business education would serve as an integrating factor in the same manner that business serves as an integrating force in all social activity. Curricular offerings should be based upon activity analysis procedures.

General business training should be required of all; it should be offered preferably in the ninth and tenth grades. The more

specialized courses should be offered not earlier than the eleventh and twelfth grades. Courses leading to highly specialized, semi-professional, and professional attainment should be provided only on the college level. Specialized training should be provided for those who show aptitude.

Business is one of the great social institutions of this era; it exerts great influence upon business education through the example set in the use of scientific method. The increased socialized attitude of business, evidence in its many contributions to the general welfare, has greatly influenced the opinion of the public regarding the nature of this institution. It is now realized that business is a constructive force tending to correlate the functions of all social institutions.

Business arithmetic and economics are subjects which should be taught in the business education department. The relative ineffectiveness of these two subjects has been due to the fact that these courses have been taught by teachers who have not possessed the vocational point of view.

Some business education courses should be open to all students; other subjects in which a high degree of skill must be developed should be offered to those who show aptitude for that type of work. In this connection Lomax advises that care be taken as to selection of pupils. He believes that exploratory work provided by beginning courses is of value in determining who should and who should not take the advanced work in a particular field.

Lomax stresses research as the scientific method of procedure, and as the only basis upon which leaders in business education can

justify choice of subject matter, curriculum revision, or decision upon any controversial problem.

Both the objective type and essay type of tests have a definite function in the measurement of commercial teaching or learning results. Both types are necessary for an adequate appraisal of teacher-pupil learning activities.

Classroom teachers and administrators connected with business education should be alert in stimulating the professionalization of business education. Through participation in the professional activities in general education, as well as in their particular field of interest, business educators will tend to exert a unifying influence in the total education program.

While Lomax does not write as much about guidance as many of the other leaders in education, he does state that better selection and guidance of pupils in the business curricula is a perplexing and outstanding problem. He believes that guidance can be administered most effectively through the classroom teacher. But that the teacher, in order to cope with the problem, must study his pupils in their tremendously complex individual differences.

Although Lomax is a prolific writer his viewpoint on the controversial issues of business education is remarkably consistent. It might be said that this lack of change in opinion shows that he is narrow minded and dogmatic. Such is not the case. The ideas which he advanced a number of years ago regarding increased teacher preparation, national professional organization and leadership, professionalization of business education, vocational and non-vocational training, the unity of education, scientific method, and other

questions are recognized and accepted today as rational, broadminded, and correct.

Perhaps the reason for the soundness of his philosophy is that it has been developed on the basis of scientific research, keen observation, and a sincere desire to further the cause of business education.

In the light of current thought and comment in business education, the following evaluation of Lomax's philosophy appears to be warranted.

In Lomax's idea of the two-fold nature of business education probably lies the ideal function of this field. It is undoubtedly true that a sounder business life will result if people in general are brought to understand and appreciate the nature and functions of business as a social institution; if efficient, socially-minded workers are provided for the business system; and if every citizen is trained as an intelligent buyer of business goods and service. Material security is an essential requirement of a truly great civilization and in the interest of such a concept every citizen of a democratic society needs to become enlightened in his wise utilization of socially significant business goods and services.

Close collaboration between local business leaders and school leaders is very necessary. Business leaders do not have a correct understanding of what schools are trying to accomplish in business education, and school officials and business leaders do not have an adequate understanding of the conditions, problems and requirements of business. When business educators realize the concept that there is a oneness of business education with all education comparable to the oneness of business with all life experiences, real educative power will be developed.

Teachers should exhibit critical and farsighted thought on questions of the new economic order in business. They should also sense what the implications of that new order are to business education and education in general.

Skills and knowledges are essential, however the importance of ideals is not to be overlooked. If guided by the wrong ideals, the social group or the individual, no matter how intelligent and capable, may become detrimental to society; the converse is true if right ideals are the dominant forces. It follows that the schools have a responsibility beyond that of merely carrying pupils through a sequence of subjects leading to intellectual proficiency. The social side of life must receive an emphasis equal to or greater than mere intellectual attainment.

Each trainee of the school should be included in follow-up programs to see if he measures up adequately to his civic obligations and responsibilities. The interest of the school and the State are each involved, thus the problem should be given deepest and wisest attention.

There is need for a better trained personnel in the business education field, for business education under competent leadership is certain to become as impelling a force for progress in our American educational system of secondary and higher institutions as is the social institution of business in our American social life.

In this scientific age of great accomplishment, it is important to remember that the greatness lies not so much in the things accomplished as in the method of thinking and working that has been employed.

If Dr. Lomax's optimistic views become realities, business leadership will more and more pursue profit-making in the light of the economic and social well-being of the consumer. Business education following this lead will view business education in the light of the whole curriculum through which pupils are equipped with a well-rounded preparation for the whole of social living, including business activities. Business education teachers will become more and more professional; they will be guided by a sound social philosophy of business; and they will come to occupy a key position in the councils of general education.

The research necessary to the development of this study has revealed that Paul S. Lomax's influence in business education is due to a number of factors--his belief in research as the basis for opinion, his broad background of learning, his professional insight, his life purposes, and his personal characteristics. In addition to these enumerated factors his influence has been increased by the fact that he not only expresses a fine philosophy but shows how this philosophy can be lifted from the abstract into the actual everyday, practical processes of education. He exemplifies his philosophy in his own activities.

Lomax is yet a young man and, while he has already made a most impressive contribution to business education, he is probably at the threshold of greater service.

BIBLIOGRAPHY

Source of Materials

A. Books

- Book, William F., Learning to Typewrite with a Discussion of the Psychology and Pedagogy of Skill. New York: The Gregg Publishing Company, 1925.
- Charters, W. W., The Teaching of Ideals, Adapted, New York: Macmillan Company, 1927.
- Charters, W. W., Wilson Guy M., What Arithmetic Shall We Teach. Boston: Houghton Mifflin Company, 1926.
- Committee, Handbook, Alpha Chapter, Delta Pi Epsilon Fraternity.
- Knudson, Charles W., Evaluation and Improvement of Teaching. New York: Doubleday, Doran and Company, Inc., 1932.
- _____, Agnew, Peter L., Problems of Teaching Bookkeeping. New York: Prentice-Hall, Inc., 1930.
- _____, Haynes, Benjamin R., Problems of Teaching Elementary Business Training. New York: Prentice-Hall, Inc., 1929.
- _____, Commercial Teaching Problems. New York: Prentice-Hall, Inc., 1929.
- _____, Reynolds, Helen and Ely, Margaret H., Problems of Teaching Typewriting. New York: Prentice-Hall, Inc., 1935.
- _____, Skene, Etta C. and Walsh, John V., Teaching Principles and Procedures for Gregg Shorthand. New York: The Gregg Publishing Company, 1932.
- _____, Tonne, Herbert A., Problems of Teaching Economics. New York: Prentice-Hall, Inc. 1932.
- Morgan, Joy E., Horace Mann, His Ideas and Ideals. National Home Library Foundation, Washington, D. C., 1936.
- Nichols, F. G. et al, A New Conception of Office Practice. Harvard University Press, 1927.
- Whitley, Isodore B., Analysis of Secretarial Duties and Traits. Baltimore: Williams and Wilkins Company, 1924.
- _____, Neuner, John J. W., Problems of Teaching Arithmetic. New York: Prentice-Hall, Inc., 1932.
- _____, Walsh, John V., Problems of Teaching Shorthand. New York: Prentice-Hall, Inc., 1930.
- (Compiled) Who's Who in Education. New York: Robert C. Cook Company, Vol. 5, 1933-1934.

B. Periodicals

Johnson, M. V., "The Relation of Principles of General Education to Principles of Commercial Education," American Shorthand Teacher 10 (October, 1929), p. 44.

_____, "Why Public School Administrators Should Be Competent Leaders of Business Education," Education 55 (March, 1934), pp. 410-413.

_____, "Opportunities of Business Education," Journal of National Education Association 23 (April 1934), pp. 125-126.

_____, "Economic-Social Crisis and the Public High School Teacher," Junior-Senior High School Clearing House 7 (January, 1933), pp. 288-291.

_____, "What Curricular Studies During 1934-1935," Journal of Business Education 10 (September, 1934), p. 7.

_____, "A Bill of Rights for the New Age," Journal of the National Education Association 23 (November, 1934), p. 205.

_____, "Is Commercial Education in Our Public High Schools in No Way Vocational?" Journal of Business Education 12 (June, 1937), p. 7.

_____, "Education and Our National Life," Journal of Business Education 13 (October, 1937), p. 7, 22.

_____, "What Easter Means to Me," Journal of Business Education 13 (April, 1938), p. 7.

_____, "Business Education in a Scientific Age," Journal of Business Education 8 (October, 1932), p. 13.

_____, "Further Reaction to the Typewriter Experimental Study by Professors Wood and Freeman," Journal of Business Education 8 (November, 1932), p. 9.

_____, "Vocational Business Education Courses in Secondary Schools and Colleges," Journal of Business Education 8 (January, 1933), p. 7.

_____, "Financial Crisis in American Education--What Does It Mean to Business Education?" Journal of Business Education 8 (February, 1933), p. 7.

_____, "Nine National 'Imperatives' in Business Education," Journal of Business Education 8 (March, 1933), p. 7, 14.

_____, "The Depression and Business Education," Journal of Business Education 8 (April, 1933), p. 7, 16.

_____, "Public Misconceptions of Public Secondary School Business Education," Journal of Business Education 8 (May, 1933), p. 7, 20.

_____, "A Proposed Departmental Reorganization for High Schools," Journal of Business Education 8 (April, 1931), p. 7, 24.

- _____, "Rapid Elimination of Children from Business," Journal of Business Education 9 (September, 1933), p. 7.
- _____, "A Vital Decision Faces Business Educators," Journal of Business Education 9 (February, 1934), p. 7.
- _____, "Trends in the Philosophy of Education," Journal of Business Education 9 (May, 1934), p. 6.
- _____, "What is a Sound Philosophy of Business Education," Business Education World 16 (November, 1935), pp. 195-198.
- _____, "What is a Sound Philosophy of Business Education," Business Education World 16 (December, 1935), pp. 291-294.
- _____, "The Progress of Business Education," Journal of Business Education 4 (August, 1930), p. 13.
- _____, "Business Education Needs Federal Leadership," Journal of Business Education 5 (November, 1930), p. 13.
- _____, "Follow-Up of Graduates and Drop-Outs," Journal of Business Education 6 (June, 1931), p. 11.
- _____, "National Leadership in Business Education," Journal of Business Education 6 (October, 1931), p. 11.
- _____, "Real Business Education is Economic Education, Second Reply to Professor Shields," Journal of Business Education 4 (June, 1930), p. 27.
- _____, "Commercial Vocational Education," Journal of Educational Sociology 7 (March, 1934), pp. 442-447.
- _____, "National Developments in Business Education," Journal of Business Education 6 (April, 1931), p. 13.
- _____, "Some Further Improvements in Shorthand Teaching," Journal of Commercial Education 57 (January, 1928), p. 8.
- _____, "National Study of Consumer Business Education," Education 58 (December, 1937), pp. 219-224.
- _____, "Articulation of High School and College," Journal of Business Education 10 (September, 1934), p. 7.
- _____, "Professional Advancement of Business Education," Journal of Business Education 10 (November, 1934), p. 6.
- _____, "The American People Need Better Business Education," Journal of Business Education 11 (September, 1935), p. 7, 31.
- _____, "A Master Life Lives in the World," Journal of Business Education 11, (December, 1935), p. 7.

_____, "Distributive Occupational Education as a Phase of Business Education," Journal of Business Education 13 (November, 1937), p. 7.

_____, "What Kind of Business Do You Teach in Your Business Subject," Journal of Business Education 11 (October, 1935), p. 7.

Trethaway, Robert C., "Paul S. Lomax, An Appreciation," Journal of Business Education 13 (June, 1938), p. 7.

(No author given) "Report Southern Commercial Teachers Association," American Shorthand Teacher 11 (November, 1930), p. 78.

(No author given) "Convention Notes," American Shorthand Teacher 11 (February, 1931) p. 275.

(No author given) "Convention Notes," American Shorthand Teacher 12 (May, 1932), p. 396.

(No author given) "School News and Personal Notes," American Shorthand Teacher 7 (April, 1927), p. 254.

(No author given) "Personal Notes About Our Fellow Teachers," American Shorthand Teacher 1 (January, 1921) p. 147.

(No author given) "Gregg Shorthand Association President Honored," American Shorthand Teacher 13 (April, 1933) p. 321.

(No author given) "Eastern Commercial Teachers' Association to Honor Former President," American Shorthand Teacher 13 (April, 1933), p. 321.

(No author given) "Announcement of 1930 Yearbook, Eastern Commercial Teachers' Association," American Shorthand Teacher 10 (March, 1930), p. 258.

(No author given) "Report, Thirty-Fourth Annual Convention of the Eastern Commercial Teachers' Association," American Shorthand Teacher 12 (May, 1932) p. 396.

(No author given) "Eastern Commercial Teachers' Association to Honor Former President," American Shorthand Teacher, 13 (April, 1933), p. 321.

C. Publications of Educational Organizations

Carlin, Seth B., "Presentation Speech" (Presentation of the Eastern Commercial Teachers' Association Honor Medallion to Dr. Paul S. Lomax) Eastern Commercial Teachers' Association, Sixth Yearbook, 1933.

_____, "Foundations of Business Education," Eastern Commercial Teachers' Association, First Yearbook, 1928.

_____, "The Nature of Business As a Highest Cause," Eastern Commercial Teachers' Association, First Yearbook, 1928.

_____, "Some Principles of Curriculum Making in Business Teacher Training," Eastern Commercial Teachers' Association, Second Yearbook, 1929.

_____, "Foreword," Eastern Commercial Teachers' Association, Second Yearbook, 1929.

_____, "Preparation of College Teachers of Business," Eastern Commercial Teachers' Association, Third Yearbook, 1930.

_____, "Foreword," Eastern Commercial Teachers' Association, Third Yearbook, 1930.

_____, "Commentator for Office Practice," Eastern Commercial Teachers' Association, Fifth Yearbook, 1932.

_____, "The Organization Chart Device in Teaching Shorthand Theory", Eastern Commercial Teachers' Association, Sixth Yearbook, 1933.

_____, Address Accepting Eastern Commercial Teachers' Honor Medallion, Eastern Commercial Teachers' Association, Sixth Yearbook, 1933.

_____, "How Fare Youth in Business Life," Tri-State Commercial Education Association, Spring Bulletin, 1938.

_____, "Adaptation of Curriculum Making to Individual Traits and Tendencies in College Students," National Business Education Outlook, Vol. 1, Part II, 1935.

Foreword, National Business Education Outlook, Vol. 1., Part II.

_____, "Correlation of Subjects in the Secondary Schools," National Education Association, Department of Classroom Teachers, Fourth Yearbook, 1929.

McNamara, Edward J., "Modern Methods of Teaching Business Subjects," Eastern Commercial Teachers' Association, Fourth Yearbook, 1931.

D. Educational Bulletins

"High School Enrollment by Subjects, for 1922 and 1928," Office of Education, Mimeographed one-page circular, 35,871. Washington, D. C.: September, 1929.

Curriculum Bulletin on Economics, No. 29, 1926, Public Schools, St. Louis, Missouri.

"A New Conception of Commercial Education," Department of Secondary School Principals of the National Education Association, Bulletin, No. 25, 1929.

T. Anne Cochran, Typist