

T H E S I S

on

CULTURAL AIMS OF A SECONDARY COMMERCIAL COURSE

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by

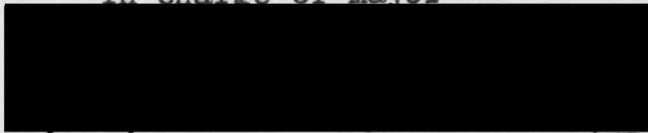
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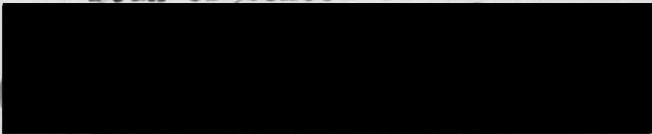
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CULTURAL AIMS OF A SECONDARY COMMERCIAL COURSE

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The subjects taught in a commercial course of a secondary school have well recognized vocational aims. It has not been conclusively proven among the many instructors of secondary school subjects that these commercial courses have cultural aims.

One well known authority clearly states the present situation with respect to the attitude taken toward commercial courses in secondary schools.

"There is a tendency too common in high schools to make the commercial departments dumping grounds for the mentally incompetent. - - - The standards of business are the most exacting, and the quantity of preparation for a business career should be in consonance with these exacting demands of business." (30)

It has been the purpose in this thesis to gather through investigation and reading, the facts which will strengthen the establishment of a number of concrete cultural aims for commercial subjects.

A questionnaire covering the subjects of bookkeeping, shorthand, typing, salesmanship, penmanship, commercial law and commercial arithmetic was circulated among the authors of standard texts in the above subjects, all the instructors in these subjects teaching in the high schools of Oregon, publishers of commercial texts and periodicals,

and certified public accountants.

A copy of the questionnaire follows:

1. Do you believe the teaching of - - - - -
in high school should have the one objective -- preparation for the vocation?
2. Which of the following objectives do you believe could be attained, through the teaching of this subject in high school?

Health
Command of fundamental processes
Worthy home membership
Civic education
Worthy use of leisure
Ethical character

3. What additional objectives, in your judgment, should be incorporated in the teaching of this subject in high school?
4. Have you used, or have you knowledge of tests which have been used, to prove that the teaching of this subject is justified on grounds other than vocational? If so would you kindly indicate where copies of such tests may be obtained?

Favorable returns were received from the questionnaire as follows: Bookkeeping 59, shorthand 37, typing 52, commercial arithmetic 38, others scattering.

Historical Background

Any adequate treatment of this subject requires a justification of the premise that there are other attainable

aims in commercial subjects than the narrowly vocational. If the commercial subjects have been held strictly in their aims to the vocational, what has been the reason for educators generally accepting this view?

A satisfying answer would seem to require a brief historical review of the commercial courses of study in American schools, both private and public. Through this historical sketch the seeker for truth will find running a vein of unreasonableness upon which I propose to cast the ray of facts.

It is probable that the first organized attempt to teach business in a school was made in Philadelphia by R. M. Bartlett in 1834. These and similar early efforts boldly offered what might today be designated as a "100% vocational course." Nothing which might even remotely be classified as cultural was claimed for these early business courses. All they contribute to the present discussion are the underlying facts which lead to their success in satisfying a social need.

Production in the industries had long been dependent upon the apprentice system for the training of skilled craftsmen. Industrial education as a school function was unknown.

With the pressing backwards of the country's frontiers to establish new markets for the products of the factories and the trades, commerce, a relatively undeveloped vocation,

sprang into prominence. Society had no existing machinery for the training of business clerks. Here was a need unsatisfied.

The apprentice system of training, which had so well served the crafts up to this time, in supplying recruits, found no popular acceptance when applied to commercial training. The classroom offered a ready solution. It was the mass method of education, of which we now hear so much in connection with advertising and selling as means of marketing. It was wholesale education -- an educational factory which made no claim to the encouragement of cultural education.

Effect of Civil War

The close of the Civil War was the second milestone in the progress of commercial education. Commerce had been stagnated by the war. The cotton industry in the South had suffered almost to its death. The close of the war brought the merchant fleets of the world to our ports. They too had suffered through the discontinuance of the flow of our raw products, especially cotton, into their industries. Commerce underwent a great revival. The demand for skilled clerks in commerce grew apace. It was a normal demand supported by an unsupplied social need -- a need which only the privately owned business college was organized to satisfy.

Students by the thousands, for the most part those of mature years, especially the returned soldiers, enrolled for commercial instruction in these business colleges. Penmanship, bookkeeping and commercial arithmetic were the only subjects taught.

Shorthand was early taught as a science. It was not until the invention of the typewriter in 1870 that shorthand became recognized as an important commercial vocation. From that time on down until the present day shorthand and typing have been the premier subjects in point of the amount of attention which has been given to the vocational subjects by the privately owned schools. There was a reason for this.

With the extension of the markets to the remote portions of the country, correspondence became a very necessary function in business. Shorthand and typing revolutionized correspondence, and brought forward methods which met the growing demands of industrial expansion.

While some early claims were made for the cultural value of shorthand instruction, the fact remained, like penmanship, its best claim for a place in the business sun, was on the basis of its utilitarian value. With the coming of shorthand and typing into the privately owned school courses nothing of cultural significance was added. The business courses remained purely vocational.

As was pointed out above, the more mature students availed themselves of the courses of instruction in commercial subjects after the close of the Civil War. This demand in time ceased, and with their organizations established on a large scale, the business college interests turned to the younger generation. This dip back into the elementary and secondary educational fields pointed public attention to another unsatisfied need of society -- the demand for trained juniors in the world of commerce without a publicly supported institution to satisfy it. The question in the minds of many was: "If hundreds of thousands of young people quit the public schools and found in the business colleges shortcuts to remunerative employment, why does not the public school system take over this work at public expense?"

First Course with Cultural Content

Not until 1898 did this idea crystalize in the thinking of the public school leaders. An expert committee reported to the Business Education section of the National Educational Association in 1898 on the curriculum for commercial colleges.

It was evident that the business college interests were desirous of establishing themselves on a firmer educational footing. The course of study recommended by this committee was an avowal of the weaknesses of the so-called

commercial courses which had been offered up to that time. The recommended course introduced English as a fundamental, and mathematics and business practice as a basis for book-keeping. For the first time anything which might be classified as cultural (sometimes referred to as basic or academic) was publicly acknowledged as necessary in a commercial course.

The endowed private business training institutions came into the field just at the dawn of the twentieth century. These were private schools recognizing the importance of a greater amount of basic training. They represented the first actual step of the privately owned business college away from the "100% vocational" course of study.

These privately endowed schools of commerce were pioneering in the field which the public schools of the secondary division were destined to occupy.

The business colleges, as such, have from time to time, during the past 25 years, essayed into the field of cultural education without signal success. They seem to have come to a full realization of their natural field -- the field in which the strictly vocational type of training prevails, and they may therefore be dismissed from further consideration in this investigation.

In 1918 a study of the private commercial schools of New York City was undertaken by the Public Education Committee of that city. In a report on the result of this study, which was most thorough, these schools as a class were commended for their efficiency in their field of specialized training, "but there was no discernible atmosphere of idealism or general educational interest."

This would seem to prove the point that the privately owned business schools have withdrawn from any prominent participation in cultural education, and have standardized upon a strictly vocational type of education.

First High School Commercial Course

Perhaps the first publicly supported high school in America to offer commercial courses was the Central High School, of Philadelphia. A brief historical sketch of this first effort is given by Cheesman A. Herrick in his book "Meaning and Practice of Commercial Education."

"Alexander Dallas Bache came to the organization of this school fresh from a study of education in Europe. He provided three courses -- a 'principal' course for four years, modeled after the Realschulen in Germany. It was the purpose of this to prepare young men for commerce and industry, and it is not strange that this division of the school claimed two-thirds of the pupils.

"Parallel with this, and equal to it in extent of time,

was the Greek and Latin course, which prepared for college and for professional studies. - - - In 1841 Bache described the aim of the school to be 'to provide a liberal education to those intended for business life.' - - - In 1849 shorthand had become popular in America. - - - The subject was so popular, and results so satisfactory, that the next year shorthand was added to the school's curriculum under a regular instructor.

"Attack and defense was the common order for four years, when it was proposed that shorthand should be dropped, on the grounds that it was not a part of an education, and that it made bad spellers.

"John S. Hart, then president of the school, made a test by dictating a series of exercises to those who had, and then to those who had not studied shorthand, and found that the ratio of errors were as one to five in favor of those who had studied the subject. - - -

"The practical results from a study of shorthand also appealed to President Hart, and he said that graduates of the school not yet twenty were commanding more money at reporting than he was making after twenty years in his profession. Several men early went from the Central High School to reportorial work in the Federal Congress, and one of these said in 1854: 'It would seem that the day is not far distant when the High School will supply the Congress with reporters as it does the Coast Survey with clerks.'

The above historical sketch is given at length to emphasize the fact that the advocates of commercial education in the public schools early came into combat with forces academic. Events occurred in quick succession to embarrass the advocates of commercial education. The vocational type of education had thus early, through the activity of the private business school, established itself.

The business colleges, through their short intensive courses, and their willingness to accept students from the 5th grade up to old age, drew not only from the high schools, but from the grades as well. So great was the urge of concentrated study and quick financial return, that the public schools were drawn into the movement.

Quoting further from Mr. Herrick: "The Central High School in Philadelphia went the way of most high schools during the last third of the nineteenth century, and became dominated largely by the classics.

"Two other influences began to work in this period. The first was that of the popular and successful private school that was taking so largely of the high school students. To offset this the public high school introduced short and technical courses of the business college stamp.

- - - - In some quarters the courses are still in operation.

High School Commercial Short Courses

"Mr. Durand W. Springer, formerly of the Ann Arbor

High School, makes the following very satisfactory statement of the mistakes from setting up commercial work for one or two years, in the public high schools: 'The short courses were failures. They created wrong impressions in the minds of the students. They belittled business by implying that the preparation required by the successful business man was not as great as that commanded by the successful man in other pursuits. They attracted an inferior class of students.' They created wrong impressions in the mind of the public as to the disciplinary value of commercial studies. Graduates from one or two year commercial courses were compared with graduates from other four-year courses, to the disparagement of the former, and in most cases the critics did not take into consideration the fact that the training was from two to four times as long in the one case as in the other.'

"In 1892 Professor James made his plea for a commercial high school before the American Bankers' Association. The suggestions in this address met with hearty response. The movement was taken up in various quarters; the old business college high school courses were enriched, and elective commercial instruction was offered in existing schools.

"In 1898 the High school of Commerce with its independent organization, and a full four-year scheme of studies, was established at the Philadelphia Central High School."

With the emergence of commercial education from the business college field, and with a promise of permanency,

the National Educational Association, through its Department of Business Education, assigned the task of suggesting a suitable curriculum for a high school of commerce, to a committee of nine.

In the Boston session of 1903 this committee made its report with what appears to be the first generally recognized course of study in commerce for high schools. This report clearly demonstrates the whip hand which the academic element in public education held. The advocates of commercial education, after a season of years in the territory of the business college, were doubtless satisfied to accept a secondary place as a price of being standardized by an authoratative body. This report gave 55% of the time to academic subjects and 45% to vocational subjects.

As one reads this recommendation, and reviews the subjects spread over the four years, one is conscious of some serious "straddling." The commercial objective was, of course, paramount. Students must be prepared to enter commercial life at the expiration of the four-year course. On the other hand these same students must satisfy the college preparatory demands.

This same year, 1903, the New York High School of Commerce in its Year Book, outlined its course of study which shows a most rigid domination of the commercial interests by the academic group. This course gave 77% of the time to the academic subjects and 23% to the vocational

subjects. The course would not seem to justify its title. (19)

Effect of World War

Economic conditions in the United States had taken such a trend prior to the opening of the World War as to place this country in the first rank of international trade. The demand for commercial workers grew apace.

In 1915 the National Educational Association met this condition by making a second pronouncement upon the curriculum for commercial work in secondary schools. It should be noted that the business college interests were largely responsible for the recognition of commercial instruction as a part of public education by the National Educational Association. Very early, however, in fact almost from the beginning, those engaged in commercial educational work in secondary schools took over the reins. The work of the National Educational Association may, therefore, be considered as a work conducted wholly from the public school premise.

An analysis of the course suggested in 1915, at the National Association session, held in Oakland, California, clearly portrays what had been transpiring since the first report of the Committee of Nine was made in 1903. The commercial course in high schools had "come into its own," and in that commercial course the technical subjects were now understood to be the important ones around which the

course should be built.

For the first time in the history of the secondary schools the vocational subjects occupied a commanding position. They were given 62% of the time and the academic subjects were given 38%. (12)

All through the years the claims for the cultural subjects were accepted at face value. One of the earliest efforts to consolidate the objectives of all high school courses on a working basis is set forth in Bulletin No. 55 of the Bureau of Education, U. S. Department of the Interior, as follows:

"Educational Aims of Commercial Curriculums

"The general statement of aims of the commission on the reorganization of secondary education applies to all types of secondary education. Pupils preparing for business should first of all have laid in their lives a proper physical foundation. They should have an instruction and experience which will prepare them effectively to discharge the obligations of citizenship. Over and above this the instruction should furnish a background for an appreciation of the finer things of life through a study of literature, music and art. To the foregoing there must be added of necessity the special equipment which will enable these pupils to meet the demands of business. The plea of the committee on business education is that the commercial curriculum should be broad enough to prepare the pupils

for entering sympathetically into life in addition to giving them the capacity to do at least one kind of work well. Commercial curriculums that have recognized this fact, both at home and abroad, while preparing pupils for entering into commercial life, have also equipped them for the living of a larger life of culture and social service.

The committee, therefore, urged the combination of liberal and practical elements so that without impoverishing commercial curriculums they can be made to prepare young people for business life." (8)

Apparently too much stress has been placed upon the intellectual values of studies in high school, be they either vocational or academic, and too little upon the native endowments of the individuals, as pointed out by Dr. E. L. Thorndike of Teachers College, Columbia, as follows:

"Colleges, so far as I know, universally refuse to credit stenography and typewriting for admission, no matter how intellectually superior the candidate is. If some serious-minded boy in the top 5% of his grade wished to take stenography and typewriting instead of two years of Latin, claiming that the former would help him better in the life and work of a scholar or man of science, the colleges would reply that the practical gain to him

would be 10 or 100 times offset by the loss in intellectual training -- in power to think. Just how much would that loss be? By our best available present knowledge, it would be 4 points to gain, or about what the boy could balance by taking four courses in Physical Science instead of four courses in Latin, or by taking two courses in the Social Studies. Moreover, boys of that degree of ability would actually gain much more in ability to think during a year, if they studied X, Y, Z and stenography and typewriting, than the average Grade X pupil would gain during two years if they studied X, Y, Z and Latin.

"If our inquiry had been carried out by a psychologist from Mars, who knew nothing of theories of mental discipline, and simply tried to answer the question, 'What are the amounts of influence of sex, race, age, amount of ability, and studies taken, upon the gain made during the year, in power to think, or intellect, or whatever our stock intelligence tests measure,' he might even dismiss 'studies taken' with the comment, 'The differences are so small and the unreliabilities are relatively so large that this factor seems unimportant.' The one causal factor which he would be sure was at work would be the intellect already existent. Those who have the most to begin with gain the most during the year. Whatever studies they take will seem to produce large gains in intellect.

"The effects are also qualitatively not what the traditional theories would expect. The order is: arithmetic and bookkeeping, first; physical science, second; algebra and geometry, third; Latin and French, fourth; physical training, fifth; the group composed of civics, economics, psychology and sociology is sixth; our miscellaneous group of history, music, shop, Spanish, English, drawing and business is seventh; dramatic art, cooking, sewing and stenography, and the biological sciences come last. This order seems less satisfactorily explained by the traditional theory than by a mixture of chance, the limitations of our tests, special training, and general training.

"For example, the superiority of mathematics to Latin and French may be a chance result of the small numbers of individuals concerned; there is about one chance in four that with 5000 instead of 500 pupils, mathematics would fall below them. The superiority of arithmetic and bookkeeping may be due to the special training which they give in arithmetic. The low position of the biological sciences may be due to the fact that the examinations did not test intellect with any three-dimensional objects or with any acts of living things.

"By any reasonable interpretation of the results, the intellectual values of studies should be determined

largely by the special information, habits, interests, attitudes, and ideals which they demonstrably produce. The expectation of any large differences in general improvement of the mind from one study rather than another seems doomed to disappointment. The chief reason why good thinkers seem superficially to have been made such by having taken certain school studies, is that good thinkers have taken such studies, becoming better by the inherent tendency of the good to gain more than the poor from any study. When the good thinkers studied Greek and Latin, these studies seemed to make good thinking. Now that the good thinkers study physics and trigonometry, these seem to make good thinkers. If the abler pupils should all study physical education and dramatic art, these subjects would seem to make good thinkers. These were, indeed, a large fraction of the program of studies for the best thinkers of the world, the Athenian Greeks. After positive correlation of gain with initial ability is allowed for, the balance in favor of any study is certainly large. Disciplinary values may be real and deserve weight in the curriculum, but the weights should be reasonable." (18)

Beliefs and claims for disciplinary and cultural values for certain subjects were rife until 1918, when a signal contribution was made to the whole educational program of the secondary school, both academic and vocational.

The National Educational Association, recognizing the growing complexity of the school population, the changes which were taking place in the home life, and the absency of definite aims for secondary education, set about to establish these aims. The result of this effort is given in Bulletin No. 35 of the Department of the Interior, Bureau of Education, entitled "Cardinal Principles of Secondary Education."

Freed from the prejudices which had grown up around the academic and vocational advocates in the secondary schools, this committee set forth clearly the aims of all secondary education. These aims gave no consideration to either of the above groups, but set forth boldly ideals for these and all other groups seeking recognition on the curriculums of high schools.

It is our purpose to state these aims, and take a searching look at the primary subjects constituting a commercial course to see if they possess any elements which measure up to these aims.

If they do, and we think they do, we believe these by-product aims should be placed prominently in the thinking of all teachers of commercial subjects.

The Cardinal Principles of Secondary Education embody the following salient points bearing directly upon this problem --

1. "Secondary education should be determined by --

- a. The needs of the society to be served.
- b. The character of the individuals to be educated.
- c. The knowledge of educational theory and practice available.

2. "The above factors are by no means static. Society is always in process of development. Within the past few decades changes have taken place in American life profoundly affecting the activities of the individual.

"As a citizen, he must to a greater extent and in a more direct way, cope with problems of community life, state and national governments, and international relationships.

"As a worker, he must adjust himself to a more complex economic order.

"As a relatively independent personality, he has more leisure time.

"In many vocations there have come such significant changes as the substitution of the factory system for the domestic system of industry; the use of machinery in place of manual labor; the high specialization of processes with a corresponding subdivision of labor; and the breakdown of the apprentice system.

"In connection with home and family life have frequently come lessened responsibility on the part of the children;

the withdrawal of the father and sometimes the mother from home occupations to the factory or store; and increased urbanization, resulting in less unified family life.

"Similarly, many important changes have taken place in community life, in the church, in the State and in other institutions.

"These changes in American life call for extensive modifications in secondary education." (9)

In order that vocational education, as well as academic education, may work intelligently toward a desired goal, this goal, as set forth in the above report, is given as follows:

"Education in the United States should be guided by a clear conception of the meaning of democracy. It is the ideal of democracy that the individual and society may find fulfillment each in the other. Democracy sanctions neither the exploitation of the individual by society, nor the disregard of the interests of society by the individual.

"More explicitly the purpose of democracy is so to organize society that each member may develop his personality primarily through activities designed for the well-being of his fellow members and society as a whole.

"This ideal demands that human activities be placed upon a high level of efficiency; that to this efficiency be added an appreciation of the significance of these

activities and loyalty to the best ideal involved; and that the individual choose that vocation and those forms of social service in which his personality may develop and become most effective. For the achievement of these ends democracy must place chief reliance upon education.

"Consequently, education in a democracy, both within and without the school, should develop in each individual the knowledge, interests, ideals, habits and powers whereby he will find his place and use that place to shape both himself and society toward ever nobler ends.

THE MAIN OBJECTIVES OF EDUCATION

"In order to determine the main objectives that should guide education in a democracy it is necessary to analyze the activities of the individual. Normally he is a member of a family, a vocational group, and of various civic groups, and by virtue of these relationships he is called upon to engage in activities that enrich the family life, to render important vocational services to his fellows, and to promote the common welfare. It, therefore, follows that worthy home-membership, vocation, and citizenship, demand attention as three of the leading objectives." (10)

The Commission on the Reorganization of Secondary Education advances the following as the main aims of education: (11)

1. Health
2. Command of fundamental processes

3. Worthy home-membership
4. Vocation
5. Citizenship
6. Worthy use of leisure
7. Ethical character

With these as our definite objectives, it is our purpose to test the high school commercial subjects, and determine, if possible, how high potentially each rates. The results of such a test should establish new objectives for the commercial high school teachers. With the possibility of such an outcome the question arises -- what use will be made of them by these commercial teachers? Will they simply use them to refute the contentions of the academic teachers, or will they set them up as definite aims in their work, and go about aggressively to realize them -- just as aggressively as they do the attaining of a high rate of speed in the writing of shorthand, or the accuracy standard in typing?

I have selected for this investigation the commercial subjects of bookkeeping, commercial arithmetic, penmanship, shorthand, typing, salesmanship and business law.

BOOKKEEPING

Health -- But eight per cent of the teachers of bookkeeping in the high schools of Oregon, reporting on questionnaire on page 2 , believed that the subject, even

remotely possessed any potentiality for the teaching of health.

Command of Fundamental Processes -- Eighty per cent of the teachers of bookkeeping in the high schools of Oregon rated the subject high. Other authorities who recognized this aim of secondary education and endorsed bookkeeping instruction as a means of attaining it are Dr. F. H. Elwell, University of Wisconsin, author of a bookkeeping text, William Whitfield, Certified Public Accountant, Portland, Oregon, William J. Piepenbrink, Certified Public Accountant, Portland, Oregon, Arthur Berridge, Certified Public Accountant and chairman of the State Board of Examiners for Certified Public Accountants, Portland, Oregon, J. F. Elton, Principal of the High School of Commerce, Portland, Oregon, and J. L. Russell, Principal of the high school of Stanfield, Oregon.

Worthy Home Membership -- Forty-three per cent of the bookkeeping teachers in the high schools of Oregon believed that the content of the course possessed possibilities for meeting this aim.

Other authorities endorsed it from this standpoint as follows:

J. F. Elton, Principal of the High School of Commerce, Portland, Ore.

Mr. Whitfield, C. P. A., Portland, Ore. -- "Promotion of home finance understanding."

F. H. Elwell, University of Wisconsin.

F. H. Darrow, Principal of Darrow School of Business,
Rochester, New York -- "Due regard for others."

Caroline Mendenhall, Instructor Grand Rapids High
School -- "It encourages correct sentiment, morals and
manners when it demands that step by step the solution
must be correct according to accepted standards. Because
due subordination to authority is taught through the agency
of bookkeeping, therein lies one of its greatest values.
I doubt if there is a single high school or university
instructor who is not concerned about the laxity of respect
for authority." (24)

Civic Education -- Sixty-four per cent of the Oregon
high school teachers of this subject voted favorably on
this aim.

The following authorities also endorsed it:

Mr. J. L. Russell, Mr. J. F. Elson, Mr. Arthur Berridge,
Mr. William Whitfield and Dr. F. H. Elwell.

Mr. P. A. Carlson, Head of the Accounting Department
of the State Normal School, Whitewater, Wisconsin, who is
a recognized authority on standard tests in bookkeeping,
in his bookkeeping test No. 7 lists questions under groups
A and B, Section 1, which have very distinct civic values.

Mr. F. H. Darrow, Rochester, N. Y. -- "The objectives
of commercial education should be not to make routine

workers but to help young men and young women to make the most of their native ability, to find their proper levels, to enable them to hold down their jobs and to conduct themselves comfortably and honorably among their fellows.

"The ultimate criterion of success in all schools teaching commercial subjects is the creation of good citizens - - -

"A knowledge of industrial and commercial conditions tends to overcome narrow-mindedness, and to liberalize and enlarge the student's sympathies, and to broaden his mental outlook. Through a knowledge of bookkeeping and accounting the student can gain a fuller appreciation of property and can develop the trait of economy." (40)

Mr. Otto W. Bergman, Instructor in Accounting, University of Illinois -- "Another cultural value (in the teaching of bookkeeping) is in training impartiality and ethics." (39)

Miss Caroline Mendenhall -- "Bookkeeping is not taught primarily as an ethical study, but it has in it some of the injunctions of the Ten Commandments. 'Thou shalt not steal.' 'Thou shalt not bear false witness against thy neighbor.' Every student should be impressed with the fact that in his bookkeeping work he is trying to tell the truth and nothing but the truth.

"Every day we see in the business failures, the jail

sentences, and the mental anguish which overtakes the embezzler, the falsifier of records, the bearer of false witness, that the penalty of disobeying this commandment is sure to come." (25)

Thomas W. Noel, C. P. A., Dean of the School of Commerce, Georgia School of Technology -- "Accounting teaches truth." (53)

Worthy Use of Leisure -- Twenty-three per cent of the bookkeeping teachers in the high schools of Oregon reported favorably.

Other authorities endorsing bookkeeping as embodying this objective were Mr. Whitfield and Dr. Elwell.

Ethical Character -- Forty per cent of the teachers of the subject in Oregon High schools saw possibilities for teaching ethical character. Doctor Elwell approved.

Ralph R. Rice -- "The bookkeeping student learns the value of good will and how this applies to him personally, the spirit that has actuated the leading business men of the world, the extent of confidential relationships in the business world, and the necessity of knowledge and honesty." (31)

Mr. Darrow -- "Commercial education provides subjects (such as bookkeeping) of immediate utility, but should develop and strengthen certain qualities of the mind which make towards success in personal, social and business life,

namely integrity, loyalty, responsibility and service." (41)

H. B. Hayes -- "In bookkeeping the habits of carelessness must be given up; lack of confidence must be replaced by self-reliance, accuracy, honesty, dependability must be developed." (46)

In addition to the above aims, as set forth in the Cardinal Principles, the following are suggested by authorities:

Mental Discipline -- Ralph R. Rice -- "Bookkeeping has a distinct value as a developer of mental discipline. It has also an often unused value in teaching the student the steps of self-development and self-expression. It develops a knowledge of one's self in that the student learns that his progress in the subject depends upon himself more than upon anyone else; self-respect in the matter of neatness and accuracy; self-confidence in that he becomes more certain of his capabilities as his knowledge of the subject increases; self-assertion in that he sees the relationship of cause and effect and learns to reason for himself; developing an independent judgment whereby he is enabled to apply the knowledge so acquired to new material. (32)

F. H. Darrow, Ph. D. -- "The subject matter of bookkeeping is full of educational values. Properly taught it develops the reasoning power and imparts habits of

neatness, accuracy, self-reliance, and system and develops the ability to form correct judgments.

"As disciplinary subjects, bookkeeping and accounting can rightly be placed side by side with mathematics and languages.

"The study of bookkeeping develops resourcefulness and self-reliance, since it is necessary to attend to a volume of detail without becoming confused. Other disciplinary values are the development of the quality of neatness, conciseness and concentration." (42)

Professor Bergman -- "As a disciplinary subject, accounting claims a place with mathematics and the languages. Like mathematics it develops the quality of accuracy.

"It develops the ability to manage a volume of detail without getting lost. It develops the habit of neatness, of conciseness, of doing things in a systematic way, and the development of the constructive faculty of mind and the power of concentration." (51)

Dr. Thomas W. Noel -- "The commercial value of accounting is instinctive or resultant rather than all important. I believe that accounting does develop in the individual certain definite qualities that are worthwhile. It teaches a man to arrange things in order, makes him orderly and gives him a proper perspective. A man who has had accounting

training takes nothing for granted. He inquires into everything and is well developed in analytical ability. It helps a man to say quickly 'Yes' or 'No.' It is impossible for him to have a broad accounting knowledge without a corresponding broad commercial knowledge, which is worthwhile to everyone. A man trained in accounting is usually an accurate man. He is usually neat and orderly in mind and person."

C. M. Yoder -- "In the subject of bookkeeping there is no limit of opportunity for creative thinking. In an investigation carried on in January and February, 1924, a study was made of the influence of subjects upon the gain to the individual in the power to think. This report was very interesting and tabulated the subjects showing their individual influence. The commercial subjects stood well to the head of the list. The study shows that commercial subjects offer as great possibilities for creative thinking as do any other subjects." (54)

E. T. Towne -- "There is no reason why bookkeeping should not have just as great educational value as any phase of mathematics." (43)

Lloyd Bertschi -- "As applied mathematics, bookkeeping provides as effective means of developing analytical reasoning power as does algebra or geometry. Its inherent educational and social values are rapidly gaining the

recognition they deserve, and it has the further advantage of being vocational and usable." (38)

Cultural Value -- Doctor Darrow -- "First in importance among the cultural values of bookkeeping is its value in developing the power of logical reasoning, in analyzing facts, and weighing evidence. Another cultural value afforded by bookkeeping is the training given in impartiality and in ethics." (1)

H. F. Hayes -- "Bookkeeping, for example, is a highly specialized subject, yet I venture to say no subject in the entire high school curriculum has an equal cultural value, especially if we accept Webster's definition of culture as being 'the training, improving, or refining of the mind.'" (44)

SHORTHAND

Health -- Thirty-four per cent of the teachers of shorthand in the high schools of Oregon believed that some phases of physical culture could be taught indirectly. None ventured how.

Command of Fundamental Processes -- Seventy-five per cent of the shorthand teachers considered shorthand an ideal subject for teaching the command of fundamental processes.

Mr. John R. Gregg, president of the Gregg Publishing Company and author of the Gregg shorthand system shared

this opinion.

Miss Elizabeth Adams, Gregg Publishing Co. --

"Command of fundamental processes in English."

Miss Caroline Mendenhall -- "Another benefit to the student of phoenetics is a sound sense of sound. He can hear better what is said to him, hear it more accurately, and he can hear it more quickly. He has also learned the art of carrying whole sentences in his mind. One of the aims and ends of education is to train the senses of the student, and certainly the study of shorthand does more than its full share towards awakening and training the sense of sound." (26)

Elizabeth Starbuck Adams -- "Shorthand trains the eye, the ear and the hand." (16)

C. M. Yoder -- "The results of college entrance tests in English given to college freshmen shows the value of stenography and typing as aids to English. The results of these tests show, first: that those entering the commercial teachers' course (at the Whitewater Normal) whose high school courses included stenography, were better than the standard; second: that language and stenography greatly assisted in the mastery of English; third: that the work in two special fields does not lower the standards of accomplishment." (52)

Mr. Rupert SoRelle, Vice-President of the Gregg

Publishing Company -- "Nothing can so familiarize one with the wonders and beauties of the English language as does the constant practice of shorthand. It is to the student of English what a course in dissection is to the medical student, but it goes still further because the shorthand writer must reconstruct from the pieces the thing that he has torn apart." (13)

George E. Walk, Ph. D., Dean of the Teachers' College, Temple University, Philadelphia -- "Does shorthand embody the elements that are commonly affirmed to be measured by intelligence tests, such as memory association, rapidity of coordination, and the readiness with which mental processes can be adapted to new situations? It is the judgment of the writer that shorthand makes a very significant contribution to the development of the student's thinking powers." (20)

Worthy Home Membership -- Twenty per cent of the teachers of shorthand in the high schools of Oregon believed that the standard of home membership could be raised through the teaching of this subject.

Civic Education -- Forty-one per cent of the teachers of shorthand in the high schools of Oregon reported favorably upon this aim.

Worthy Use of Leisure -- Thirty-one per cent of the shorthand teachers in Oregon expressed the belief that the use of leisure time could be improved through the teaching

of this subject. Mr. Gregg shared this opinion.

Ethical Character -- Thirty per cent of the shorthand teachers in Oregon thought the standard of ethical character could be raised through the proper teaching of this subject.

Miss Adams -- "Develops character, integrity, responsibility, perseverance and thoroughness." (17)

Miss Mendenhall -- "Another benefit derived from the slow and painstaking processes of acquiring phonetics is character forming." (27)

Mental Discipline -- Miss Mendenhall -- "In order to learn shorthand one must concentrate. One must associate the phonetically written shorthand outline containing only the sounds heard in the word, with the longhand word containing many more letters that are silent in the spoken word, and thus he develops the ability to tie up into one concept two things that look altogether different. This is one of the disciplinary values claimed for the study of languages which can be claimed for shorthand in the fullest sense." (28)

Miss Adams -- "From a careful analysis of the essential elements of French and shorthand, I am convinced that in a high school course in Gregg shorthand, lasting two years, the training of the mental and physical powers of the student is quite equal to the training from a two-year course in a foreign language.

"It may be pointed out that the potentialities of disciplinary value in commercial subjects compared favorably with those of other subjects considered as a whole. (See Principles and Methods in Commercial Education by Hahn and Klein, pages 24-26)

"Another argument for commercial subjects is based on the ground of disciplinary value. The point is this: Whatever of mental discipline is desirable and available in any kind of education is equally desirable and available in commercial education. Since we are not dealing with subjects that are remote to commercial activities the amount of transfer that would have to be made from an academic course, if possible, is not necessary in the case of the commercial course. The problems that a student will encounter upon entering business, if not identical with those of his school course, will in so many instances bear a resemblance to the latter, or have a sufficient number of elements in common, that the student's training will function at once with ease and effectiveness." (21)

Mr. SoRelle -- "All of the fundamental processes in writing shorthand possess the highest disciplinary value and continue to possess it. The shorthand writer never reaches the point where his work is completely automatic. He always has new words and new combinations of words to deal with." (14)

Doctor Walk -- "Discussions about mental discipline

generally center on the nature of the subject matter concerned. If from this point of view it were asked which tends to train the mind better, Latin or shorthand, much could be said in favor of either. In one respect shorthand would have a decided advantage, namely, its much more directly utilitarian value. Subject matter that is susceptible of almost immediate application appeals to interest with tremendous force, and by and large that which creates the greatest interest is the thing that is done most thoroughly."

(22)

Lucille Frederick -- "It requires courage to master the fundamental principles of shorthand. It is a discipline in training and developing those intellectual qualities which secure reliable judgment, accurate decisions and clear thinking." (2)

Culture -- Ralph R. Rice -- "Shorthand is often an avenue to the highest form of culture, but this depends upon the person so circumstanced. It has other and more immediate advantages. It develops memory, accuracy, poise, precision, self-control, and a sense of the artistic." (33)

H. B. Hayes -- "Surely the one who is to sit at the right hand of some large, broad-minded business man needs culture of a high order, and I maintain that in the study of stenography, and its allied subject, typing, culture of a high order can be obtained. If patience, perseverance, painstaking effort be part of cultural development, then

these studies are admirable adapted to develop these qualities." (48)

Mr. SoRelle -- "That shorthand has a great educational (cultural) value I believe is realized by all who have investigated the art, or who are at all conversant with it. Consider for a moment the process through which the shorthand writer goes in reporting and transcribing a speech.

"First, there is the hearing and the comprehension of the words and the grasping of the thought of the speaker; second, the translation of these words into sounds; third, the selection of the shorthand material from which they are to be constructed into tangible forms; fourth, the transferring of these impressions to the fingers; fifth, the execution of the forms. Here are five distinct processes through which every word must be put in the smallest fraction of a second.

"The problems in transcribing develop perception, alertness, quickness of thought, resourcefulness, discrimination, and judgment to the highest degree. The problem is comparable to that of hearing a discourse in French or German and translating it instantly into English.

"Let us compare the study of shorthand with that of one of our required high school subjects, a foreign language, French, Greek or Latin. The student of a language first takes up the elementary sounds, the vowels and the

consonants. These are combined into words. He acquires a vocabulary by memorizing. Next the formation of sentences engages his attention, and finally proceeding from the simple to the complex the more difficult matters of grammatical construction and composition are considered, and actual translation is undertaken, in which all of these processes are paralleled in the study of shorthand. The student learns the elementary characters of the art, the vowels and consonants, and is drilled on the sounds. He gets a new conception of words and gains some valuable experience in correct pronunciation. He is used to think of a word in its printed form but in his shorthand work he must become accustomed not only to this form but also the sounds of which it is composed. The sounds have their shorthand equivalents composed of curves both long and short and circles. These are combined into words, the group of words into phrases, and finally the whole sentence is written.

"In transcribing the process is reversed. Hence it may be seen how perfectly in the study of shorthand synthesis is correlated with analysis.

"A brief comparison with geometry, a study highly valued by educationalists for its disciplinary effect upon the mind, might also prove of interest. Geometry is primarily a study that develops the analytical powers of the mind by clear logical reasoning. It has a distinct

value also in inculcating habits of precision, neatness, order, and truthfulness. The same advantage may be claimed for shorthand. The shorthand writer is constantly analyzing, and his decisions must be reached and applied instantly.

"Every stenographer worthy of the name has an ambition to make his work accurate, which stenographically is a synonym for truthfulness. Shorthand does more than geometry in respect to clear logical thinking for it adds speed to it. Shorthand writing is a peculiar application of the fundamental movement of mind which is to grasp a thing as an indiscriminate whole, analyze it into its parts, and to correlate these parts in relation to the whole.

"The advantages of a study of shorthand are threefold: first, the mental discipline secured in the mastery and application of its principles; second, the educational value of the writing and rewriting of the matter taken in shorthand; third, its practical or commercial value." (15)

Lucille Frederick -- "The cultural value of shorthand, its power to improve and develop our intellectual natures, is one of its greatest values. There is a certain natural training, disciplining, and refining that the study of shorthand can develop, but which is apt to be overlooked." (3)

A. J. Reed -- "Concerning shorthand, there is no question in my mind of its cultural value." (4)

TYPING

Typing is the subject par excellent for training in accuracy. It has probably contributed more to the training of order than any subject in the high school curriculum.

Health -- Twenty-four per cent of the instructors in typing in the public schools of Oregon reported on the questionnaire that the teaching of typing held possibilities for health training. The direct connection is probably quite remote unless practice material treating upon health topics is consistently supplied the students. Such material might very well be substituted for much of the meaningless material upon which students are required to concentrate from one to two hours each day. This offers an ambitious teacher an opportunity to make use of a neglected aim in typing instruction.

Command of Fundamental Processes -- Ninety-five per cent of the typing instructors in the high schools of Oregon reported favorably upon this point. This aim is held in high regard by all the manufacturers of typewriters and authors of typing texts.

Mr. Rice -- "Typing develops and satisfies the creative instinct in the student. He sees the immediate result

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of his efforts. He gains more confidence in himself from day to day. It develops habits of accuracy. As a training in concentration it has no superior." (34)

Miss Mendenhall -- "The quickness and positiveness mastered through typing will be of lasting worth, and will aid the person who acquires it in other work and study that he may be doing. It gives the learner a sense of rhythm which is also one of the great and lasting benefits derived from the study of music. This sense of rhythm produces a continuity of movement and an easy state of mind which cannot be overvalued." (29)

Ruth Lawrence -- "Typewriting may be taught to develop judgment on the part of the student, and to cultivate initiative and develop self-reliance." (5)

Worthy Home Membership -- Thirty-five per cent of the typing teachers of Oregon reported favorably on this aim. With the interested student typing has a carry-over value in industry which may reflect itself in the home.

Civic Education -- Forty-one per cent of the typing teachers of Oregon reported favorably on this aim. Here again the value of typing to this aim depends upon the kind of practice material supplied the student. Much of the correspondence material might profitably be obtained from the files of the local Chamber of Commerce, treating the advantages of the community. This may stimulate a pride in local institutions very early which may have a substantial

carry-over value. Service Clubs maintain a cooperative attitude toward the public schools, particularly the high schools. Typing instructors may find them very helpful in supplying material which will foster civic education as naturally and as satisfactorily as through the civic classes themselves.

Worthy Use of Leisure -- Fifty-six per cent of the teachers of typing in Oregon reported favorably upon this aim on the questionnaire. H. C. Spellman, manager of the School Department of the Remington Typewriter Company also believes typing satisfies this aim of the worthy use of leisure time.

Where the typewriter has been placed in the home, as it has in a very large way with the advent of the portable models, it has found much use. This use may not all be charged up to school utility. Those with literary tendencies make generous use of the typewriter. Where typing tests are held in school every student is a potential speed artist. Most certainly the time spent at typing practice during leisure hours must be classified as worthy.

The carrying on of social correspondence is a worthy use of leisure time to which the skill in typing makes its substantial contribution.

Ethical Character -- Fifty-six per cent of the teachers of the subject in the high schools of Oregon reported favorably on this aim.

Mr. Rice -- "Students should know, and they usually do, that their work in typing is a good index to their characters. A false stroke cannot be recalled. Apply this principle to life and we can readily see the cultural value of such a purely mechanical operation as typing." (35)

Cultural Value -- A. J. Reed -- "Typing is of great value as an adjunct to the teaching of English composition. There is something more than the motor involved in the study." (6)

SALESMANSHIP

Salesmanship is a new subject in the curriculum of the commerce courses of secondary schools. Unfortunately many who are given the responsibility of introducing it have had either insufficient or no preparation. If the subject has any definite objective for them it is the strictly utilitarian. In some large metropolitan high schools, where a demand for teaching the subject has come abruptly, rather than gradually, a genuine distaste has been expressed for what has been termed "Training department store clerks." Their attitude is one of "we are not that type of school." As a result they have, in some cases, gone to the other extreme in presenting the subject from a psychological viewpoint, much above the heads of students.

Salesmanship is sorely in need of a statement of very definite aims. It has them aplenty aside from the vocational.

One prominent educational pioneer in this field, Mr. Merritt Davis, Salem, Oregon high school, has for years been doing a splendid piece of work in this field. He terms the objective for this subject a "preparation for life." He would include as aims for the subject every one of the six set forth in the Cardinal Principles from health to ethical character. He holds that the proper teaching of salesmanship embodies character development, personality development, understanding of human analysis and leadership.

"Salesmanship, rapidly becoming one of the regular commercial subjects," says H. B. Hayes, instructor in the Northern high school, Detroit, Michigan, "has more cultural possibilities than any other subject in the high school courses, with the possible exception of English. Here the emphasis is laid upon character, integrity, honesty, courtesy, perseverance and self-confidence. Psychology enters into the study. National and racial characteristics must be understood. Emotional appeal, debate, eloquence, poise, character analysis -- all these must be understood and applied by the successful salesman." (49)

"Salesmanship training," says I. R. Garbutt, Director of Commercial Education of Public Schools of Cincinnati, Ohio, "is the branch of commercial education which has as its aim the training of pupils to actively serve the employer by service to his customers. The act is personal and the viewpoint is purely social. This type of education

calls for more social knowledge than does clerical education." (37)

Man has never voluntarily made his way to the feet of the inventor. History is replete with stories of the persecutions endured by those who produced what ultimately flowered into the world's chief blessings. The standard of living the world over would not advance without the continual practice of the principles of salesmanship. Assuming that the elevation of the standards of living is a laudable aim, salesmanship study is high in potentiality. It is a misconception to think of high-powered salesmanship as an objective or aim of a course in salesmanship. Service is more than a byword in selling. When properly taught all that savors of the unethical falls away. Its success rests upon an understanding of the individual and his needs, and the moulding over of the imperfect or undeveloped idea into the perfect, fully developed and satisfying idea. Salesmanship carries the highest potentiality of any subject in the high school curriculum for the lifting of the living plane of man by man. It is the social service subject par excellent.

PENMANSHIP

All penmanship instructors in the high schools of Oregon reporting on the questionnaire believe the subject holds other objectives than the strictly vocational.

Health -- It has helped the eyesight and sitting posture of many, and this training has had a carry-over value.

Command of Fundamental Processes -- Penmanship is one of the fundamental processes, which even in the present day of office expediencies, ranks high as an efficient tool of life. The stigma of illiteracy, so repugnant to the nation and the individual, has its root in the inability to read and write.

The degrees of proficiency of skill in writing legibly have been advanced by many authorities as indicative of traits of character. If this be true due recognition should be given to the fact by high school instructors, and a positive effort be made to improve characteristics of individuals through better penmanship. Too many instructors have been satisfied with a diagnostic treatment of the matter -- forming a judgment of the student's character upon the basis of what he demonstrates through his native ability to write.

The aims of Worthy use of Leisure and Culture are satisfied by penmanship through a development of an appreciation of the artistic, with all that this implies as a hobby.

"To say that a man can prepare a perfectly legible record with a pen is a tribute to him," says Charles R. Wiers, Assistant Vice President of the Schmut National

Bank, of Boston, Mass. "Good penmanship, as I see it, calls first for accuracy and simplicity. You should look upon penmanship as one of the finest mediums for expressing individuality. Penmanship may be aptly termed a disciplinary agent. If one takes the greatest pains with his writing, ever remembering his responsibility to others, he will be sure to help himself in a variety of other ways." (55)

"The ultimate aims of drill and practice in penmanship," says V. G. Gillespie, of the Bowling Green Business University, Bowling Green, Ky., "are legibility, speed, ease, endurance and beauty. The proximate aims are muscular and nervous coordination, perception of forming sizes and distances, correct rhythm and uniformity." (56)

"As a rule boys and girls who can write well," says R. E. Wiatt, Director of Penmanship of the Los Angeles Public Schools, "are cautious, neat, painstaking, observing and ambitious. I think that the effect good writing has upon the nervous system is worth the time and effort devoted to its mastery." (23)

COMMERCIAL LAW

The teachers of Commercial Law, in the high schools of Oregon, so far as they have expressed themselves on the aims of the subject, believe that it holds possibilities for teaching a command of the fundamental processes. The rounding out of the technically trained worker is advanced

as one of its by-products.

Prominent jurists are questioning the practicability of teaching law courses in high schools on the ground of the immaturity of the students and the scarcity of qualified instructors. Our purpose here is not to justify the teaching of the subject, but assuming that it is taught, to make a careful analysis of it to see if it possesses any potentiality for training in those cultural phases of education, such as ethical character, civic education, worthy home membership, etc.

Mental Discipline -- Miss Mendenhall -- "As a means of mental discipline the study of law has acquired a time-honored prestige. It disciplines the mind in precision of thought and in logical reasoning. On account of the precision of law, the law student will soon find that he must be exact in his statements and accurate in his processes in arriving at conclusions. If the student is not drilled in stating facts in terms which admit of no question, and about which there can be no doubt, he has missed the best part of his training. There is no study in the curriculum which is better fitted to develop this trait of accuracy of statement than commercial law. Vagueness and looseness of thought and careless statements cannot be tolerated.

"The object of all teaching should be to teach students how to think. The study of commercial law develops the reasoning faculty as much as any other study in the

curriculum, if not better than any other study, and it is therefore obvious that it should have a prominent place in the curriculum of the present-day school." (45)

Cultural Value -- H. B. Hayes -- "Commercial law has great cultural value. It has its roots in the Garden of Eden when God said, 'Thou shalt not.' It grew and developed under the rule of the tribal chiefs. Moses laid down its fundamental truths and society has grown and developed under its beneficent influence. An understanding of the rights of others, as well as of our own rights and obligations, is a long step toward the goal of true culture, the right to be called a lady or a gentleman, the American's highest title of nobility." (50)

Mr. Rice -- "Commercial law is founded upon the necessity and broad principles of commercial intercourse with historical and cultural background unequalled in any other subject. It teaches the value of precise language and the necessity for clear thinking and honorable action. Nothing develops self-confidence and self-assertion more than a knowledge of the law." (36)

COMMERCIAL ARITHMETIC

Command of Fundamental Processes -- Eighty per cent of the high school instructors in the subject in Oregon approved this aim. All the publishers of texts reporting also approved.

Worthy Home Membership -- Forty-two per cent of the Oregon teachers of the subject reported favorably on the questionnaire.

Worthy Use of Leisure -- As an aim this ranked rather low, only 14% of the Oregon teachers of the subject reporting favorably.

Ethical Character -- Upon this aim the returns parallel very closely those received for bookkeeping, and for much the same reason. Fifty-six per cent of the Oregon teachers reported favorably.

Commercial arithmetic has primarily the command of fundamental processes as its aim. The content of such courses designed for commerce students has been undergoing revision. Much material of every-day use is enlivening it. In some of the most progressive high schools a differentiation is made in the content in an attempt to adjust it to boys and girls -- the household content being used in the classes of girls, and the manual arts in the classes of boys.

An opportunity to train for ethical character in much the same manner is afforded the forward-looking instructor.

The commercial course, considered as a whole, is regarded very highly in potentiality for all the objectives set forth on Page 11 of the Cardinal Principles. Ethical character is occupying a prominent place in the thinking of educators in all fields. Since the commerce course as

a whole assays so favorably in possibilities for the teaching of character education, it should be set forth as one of the final aims of the course. Any formal teaching of ethical character in the public schools is very remote. If it is necessary, and most thinkers agree that it is most necessary, and if it must be taught informally, we should be searching for those high school subjects and courses which lend themselves most readily to it.

Commerce is built upon the fundamental idea of service. The salesman who induces, through high-powered salesmanship, a buyer to take more than he needs, or can sell, is not performing an ethical function of commerce. The purchasing agent who accepts gratuities from a salesman for the purpose influencing his actions favorably toward the salesman's product, is disregarding the service idea of commerce. Codes for conduct are largely idealistic, but when designed for business they become workable. Business without character is social piracy. When a student is brought to realize that the service ideal of commerce is dependent solely upon high ethical character standards, and that any weakness of character manifests itself in the irregularities of commercial pursuits, low moral standards mean failure and high moral standards in commerce mean success. He is strong for success. To obtain it in commerce he must be strong for a high ethical standard of character.

Mr. R. H. Mouser, Assistant Manager of the Equitable Life Insurance Co. of Oakland, Calif., speaking to this point says, "In speaking of the fundamental objectives of commercial education, we must not overlook the cause of the general attitude towards life, towards one's fellow-beings, and towards one's success, which a course in high school should give. The great leader is a man of fine character. Anything which builds character develops leadership. Therefore I hold that the commercial courses, while developing mind, should at the same time build character. The student should be given the vision of unselfish service to his fellows; aroused to a sincere desire to be of real service in the business world; fired with the conviction that after all the real measure of success is anything that one has been able to do for others."

Mr. H. B. Hayes makes the point that commercial subjects place emphasis upon the formation of good habits, and the correction of wrong ones -- punctuality, neatness, courtesy, reliability, speed, endurance, patience, and perseverance.

Thorndike claims that the intellectual training (the power to think) gained from one subject is not far different from that gained from another subject. Since the power to think is an evidence of culture, the commercial student stands as good a chance to acquire it in commercial courses

as does the student in Latin or Greek.

Superficial thinkers may consider culture as pertaining only to conduct, but it goes deeper than that. True culture must be of the heart within. It is something more than polish. It is the sum total of all that one is.

Mr. Hayes believes that the commercial courses have an equal, if not superior, cultural value to other so-called academic courses. He further claims that the commercial teacher is as well educated, as wide awake, as apt to teach, as cultured, if you please, as any teacher of other high school subjects. He has had the same training, has taken the same examinations and has the same qualifications. If anything, his experience is broader, his background of knowledge more varied, his sympathies and human understandings more acute because he realizes the ones committed to his care must soon be facing the keen rivalry, the cut-throat competition in the struggle for attainment, and he gives of his own experience unstintingly and wholeheartedly, receiving as his greatest compensation the knowledge that he has helped to make the pathway of those committed to his care a little happier and their success in life a little more assured.

Making Adjustments -- Dr. F. M. Garver, Assistant Professor of Elementary Education, University of Pennsylvania, makes the point that in the field in which we are particularly concerned (commerce) learning consists in

acquiring the ability to make adjustments to those situations necessary for success in commercial life. It would seem obvious, therefore, that the training offered young people for this work should consist largely in making real adjustments to real situations of commercial nature, or situations of commercial nature, or situations similar to such real situations, and making them frequently enough to insure a fairly high degree of efficiency in making the appropriate adjustments when placed in responsible positions. It is for this reason that we teach our commercial students shorthand, typing, bookkeeping, filing, etc." (7).

Dean J. A. Bexell, of the School of Commerce, Oregon Agricultural College, supporting this point says: "To give directions, to make decisions and to make adjustments may be said to be the three principal functions of the manager." Another has put it thus: "To organize, to supervise and to deputize."

T E S T S

A careful investigation has been made to find tests which have been used by commercial instructors in the secondary schools to demonstrate that the commercial subjects do contain the germ of culture. These cultural aims, set forth in the Cardinal Principles, are not new but the recognition of them as ends of commercial training has been so slight that practically no tests have been devised to

measure their cultural content.

It is possible, by implication at least, to prove ✓ through standard tests of accomplishment, that these commercial courses measure quite as high in a cultural way as any subjects included in the curriculum of the secondary schools. In some cases, as will be shown below, the commercially trained students tested above the academic students in those subjects, such as English, which has culture as one of its chief objectives.

In setting up the aims of the Cardinal Principles we take the position that these were not new aims for the present secondary courses of instruction. The courses, as taught, embodied the attainment of these aims, but the aims were not theretofore concretely set forth. The academic courses were always assumed to develop culture and mental discipline without a very clear explanation as to just how.

The most satisfactory method of measuring the vocational-plus content of a commercial course is to submit the product of such courses to the college entrance tests along with the product of such courses as the college preparatory or strictly cultural group. This has been done upon several occasions with results most flattering to the commercial course product.

In a study reported in the January and February, 1924, numbers of the Journal of Educational Research, in which the influence of subjects upon the gain to the individual in the power to think was investigated, Mr. Yoder points

out that the commercial subjects stood well in the head of the list, and above some of the sacred so-called academic subjects. The final difference between studies having the greatest influence upon the gain in the power to think, ranging from arithmetic to sewing and shorthand, is almost negligible. The study shows that commercial subjects offer as great possibilities for creative thinking as do any other subjects.

The same author makes the following report of another recent investigation along the same line: In writing of the results of English tests given in 1926 to college freshmen in Wisconsin he reports that the results of these tabulations tend to show the value of shorthand and typing as aids to English. All students entering (entrance requirements are the same for the University of Wisconsin) the Whitewater State Normal for the first time, September, 1926, were given a standard set of diagnostic tests in English composition.

Some of the questions arising from the study of the results of these tests were: "Are the students entering college, whose specialty is Commercial teacher-training, as good or better in English than the standard median? Are the students entering the commercial teachers course as good or better in English than the ones entering the other teachers courses? Do language and stenography materially assist in English accomplishments? Does work

in the two so-called special fields tend to lower standards of English accomplishments, which on the whole are marks of general accomplishments?"

Here are the results of the students tested:

Students Tested	Standard Median			
	86			
	No. of Cases	Scores		
		High	Low	Median
Total Number	161	107	23	86
Who enrolled in:				
Commercial Course	59	105	26	88
All other courses	102	107	23	85
Whose High School Courses Included:				
Stenography	47	107	38	89
Language Foreign	40	104	44	89
Stenography and Language	17	104	64	91
Neither Stenography or Language	91	103	23	81

If these figures disclose anything at all they seem to show the following:

(a) That students entering the Normal School are as good in English as the standard.

(b) That those entering the Commercial Teacher's course are better than the standard.

(c) That language and stenography greatly assist in the mastery of English, also that one is as good as the other in this particular.

(d) That work in two special fields does not lower the standards of accomplishment.

Mr. H. B. Hayes, instructor in commerce in the Detroit, Michigan, high school, after a very careful study of the results of intelligence tests when applied to commercial students in the secondary schools of Detroit, holds that the returns favor the commercial students. In his investigation he reports that fortunately we have some testimony based upon actual research and tests which seem to bear out this contention.

Two studies were made by Mr. Kohlkoff and Mrs. Dyel, of the University of Wisconsin. Four hundred and fifty-seven pupils were given the Haggerty intelligence examination: 172 of them were commercial students and 285 were in other courses. The average score of the commercial students was 128.9, while that of the other pupils was 127.6. In other words, the average intelligence of the commercial students was somewhat higher than that of the students in other courses.

The Thondike reading scale was also applied to a group of 726 pupils with similar results.

In all the high schools of Detroit, Michigan, an intelligence test is given to each graduating class. A careful study of the results of several of these tests shows that in every case the general intelligence of the commercial student is equal, if not superior, to that of the strictly academic student. In one graduating class out of the first five having the highest score four were commercial students. In the January 1926 test six out of the highest ten had had commercial work.

SUMMARY

As a result of this investigation we believe we are justified in concluding the following:

1. That all the claims of cultural and mental disciplinary advantages for academic subjects of high school courses enure to the commercial subjects.
2. That the following additional specific aims may be logically set up for the instructors in commercial subjects in the secondary schools:
 - a. Command of the fundamental processes
 - b. Worthy home membership
 - c. Civic education
 - d. Worthy use of leisure time
 - e. Ethical character

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