

1936

# A proposed plan for the use of supervised correspondence courses in extending the program of small high schools

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A PROPOSED PLAN FOR THE USE OF  
SUPERVISED CORRESPONDENCE COURSES IN  
EXTENDING THE PROGRAM OF SMALL HIGH SCHOOLS

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A PROPOSED PLAN FOR THE USE OF  
SUPERVISED CORRESPONDENCE COURSES IN  
EXTENDING THE PROGRAM OF SMALL HIGH SCHOOLS

BY  
ALAN FOSTER FLYNN

THESIS SUBMITTED FOR THE DEGREE OF MASTER OF SCIENCE

MASSACHUSETTS STATE COLLEGE

AMHERST, MASS.

1936

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CHAPTER ONE

INTRODUCTION

## CHAPTER ONE

### Introduction and Definition

#### The Scope and Limits of Thesis

The purpose of this study is to evaluate the offering of the small high school in Massachusetts with reference to college preparation and vocational education and to indicate a method whereby supervised correspondence study may be introduced, thus eliminating some of the inequalities between the educational opportunities of rural and urban pupils. The study is limited to the organization of secondary education with reference to college preparation, vocational education, and correspondence study.

#### The Secondary School Assumes Responsibility for Discovering and Fostering the Differential Abilities of Its Individual Pupils

It is no longer safe to look on high school education as the privilege of a selected few. A high school education is as essential in the twentieth century as a grammar school education was in the nineteenth.

Education must be universal in its materials and methods. Our schools must provide for all types of capacities in all their individual variations. School life must provide a variety of situations found outside the school walls if its work is to be effective.

The need for different types of education for different pupils is widely recognized in practice as well as in theory. Progressive secondary schools have already gone far toward meeting that need, both by offering a wide variety of curricula--academic, semi-professional, technical, commercial, industrial, agricultural, artistic, and the like--and by providing differentiated methods of teaching within these curricula.

### Small School Handicapped

The small high schools are administered and taught, for the most part, by principals and teachers who do not possess the equivalent of the training and experience of city high school teachers and administrators.

"Wealth is centered in the cities; hence the cities can provide superior personnel and far superior material equipment."<sup>1</sup>

Measures should be suggested whereby these differences can be overcome without overburdening the rural community financially.

### Secondary Education

Secondary education is considered in this study as an education which meets the needs of all pupils from twelve to eighteen years of age generally enrolled in grades seven to twelve.

### Small High School

The term "small high school" as used in this study applies to a school enrolling less than two hundred pupils in grades nine through twelve, in most cases taught by a staff of six full-time teachers or less. There are ninety-five such schools in Massachusetts.

### Rural Secondary Education

"What is the mission of the small secondary school? A yardstick cannot be easily applied to the average small school whose organization and curriculum fluctuates with incoming and outgoing school board members, principals, and teachers."<sup>2</sup>

1. Ruffi, John The Small High School, pp. 95 ff.

2. Carrothers, Dr. George E. Junior-Senior High School Clearing House, April, 1934

"The small high school must win and hold the support of the citizens of the community even to a greater degree than is required of the large school. The population at large has rather generally discarded the idea that there is merit to the program of education that has become the conventional offering of the small high school. Latin, mathematics, modern languages, formal history, formal literature, and the rest, no longer awe the taxpayers. They realize that such an offering is singularly unrelated to the life that the boy or girl will live." 1

"The small high school cannot at this time be eliminated and must not be forgotten merely because it does not attract the notice given to the urban high school. Any improvement of the small high school, especially in rural areas, is likely to pay exceptional dividends, for there is evidence which tends to show that farmers are able to produce more than their proportion of superior children." 2

As secondary education in rural communities improves, a larger percentage of boys and girls take advantage of the education provided. At present there appears to be too much retardation and elimination in the small schools due to the narrow traditional curricula offerings. In a democracy we are pledged to educate all the children of all the people and we must aim at nothing less.

"Objections may be made to the idea of making secondary education universal in that the secondary school must of necessity be a selective institution." 3

"If the secondary school is to remain a selective institution some plan must be devised whereby those pupils may be selected who are best fitted to profit by its offerings." 4

1. Ferriss, Emery N. Junior-Senior H. S. Clearing House, April, 1934  
"Curriculum Trends and Problems in the Small High School."
2. Book, W. F. The Intelligence of High School Seniors, p. 49
3. Douglass, Aubrey A. Secondary Education, p.25
4. Counts, George S. The Selective Character of American Secondary Education, p. 154

Educational experts now freely proclaim that the modern secondary school is no longer a high school, but the common school of all the people--a democratized public school. In other words, the unusual child of yesteryears who seemed a misfit in conventional courses has become the usual child in the present school for all the children of all the people.

"The high school of the present day is geared too high for the average pupil." <sup>1</sup>

Professor Inglis states that

"the academic studies of our secondary schools, as at present organized and taught, require for successful accomplishment an intelligence probably not lower than five points (in I.Q.) above average ability." <sup>2</sup>

"The rural boys and girls who do persist in high school are slightly more successful in their studies than the urban group." <sup>3</sup>

Counts stated,

"It seems reasonable to assume that through the proper adaptation of subject matter and methods of instruction, secondary education might be so administered as to be profitable for all except those who are clearly feeble-minded." <sup>4</sup>

Concerning this Professor Inglis wrote,

"It is perfectly possible for most American citizens to learn the limited amount of any high school study, provided it is organized and taught with proper regard for the capacities of the pupils concerned." <sup>5</sup>

1. Cox, P. W. L. Curriculum Adjustment in the Secondary School, pp. 227 ff.
2. Inglis, A. J. "The High School in Evolution," New Republic, Vol. XXXVI, Nov. 7, 1923.
3. "The Rural High School," N. Y. Rural Survey
4. Counts, George S. op. cit. p. 154
5. Inglis, A. J. op. cit. p. 2

In Massachusetts many proposals have recently been made to re-organize the core subjects, English, social studies, mathematics, and science, to the end that practically all pupils may succeed, realizing that few who come into contact with our high schools are of prospective college calibre. In the main, the major emphasis has been and remains upon the preparation of pupils for college, as the traditional idea prevails that all should take courses with college admission the one objective.

"Curricula rigidly organized from the adult point of view, in the early days, drove a great many youths from the secondary schools. In that day such a situation was not so calamitous. The community absorbed the unschooled youths by putting them to work at common labor. There were plenty of jobs for all. Curricula rigidly organized today from the traditional point of view cannot drive children from school so early, and if they should be thus driven out there would be no place to go. Industry does not want them. Loafing could be their only calling, so society has decreed that they must remain in school. Since they have no choice in the matter, it is all the more important that school authorities try to cater to their interests. If we drive them too strenuously to the doing of set tasks in which they can see no reason, we may be driving them into open rebellion against the school which does the driving, against the home which sends them to school, and against all organized society. Too long we have considered as educated only those who have taken a certain number of traditionally approved courses in regularly organized schools and colleges. The curriculum of the small high school ought to be so organized that it contributes in the largest and best way to better health, happier living, and more normal citizenship." 1

1. Carrothers, George E. Curriculum Adapted to Pupil and Community Needs, p. 481

### The College Preparatory Curriculum

"With only about one-half of those entering the four-year high school persisting until the last year and fewer than one-half of those completing the high school course continuing their education, it is evident that excessive attention to college preparation cannot be justified in the small high schools." <sup>1</sup>

The secondary schools may be so organized that collegiate standards of admission may not thwart the efforts of the vast majority of pupils in receiving a worthwhile education as prospective intelligent citizens of our commonwealth. At least we should provide for the majority before setting up collegiate standards for the minority. Secondary education should not lead to the crossroads-- "college preparation," or "preparation for life," but rather the mission should be the preparation of a citizenry competent to share richly in the cultural heritage of our civilization, whether opportunity leads to college halls or elsewhere.

"Whatever the answers to the curriculum problems of the small high school may be, they must be sought along lines which will provide youth, as far as humanly possible, with the opportunity for all phases of educational development deemed desirable in a democratic form of society." <sup>2</sup>

### Vocational Education in the Small High School

In the Cardinal Principles of Education, vocational preparation is assumed as a necessary part of the secondary school offering. Many pupils who now attend small high schools will eventually find their way into large industrial communities.

1. Cox, P. W. L. op. cit. p. 269 ff.

2. Ferriss, Dr. E. N. op. cit. p. 462

"The trends in the movement of population definitely remain cityward since 1920. The small high school graduates necessarily represent a cross-section of the population at large, as far as ability is concerned, and therefore may find themselves working in any one or more of five thousand different occupations." 1

Vocational education is discussed in Chapter Three, and in Chapter Four a plan is suggested whereby classroom instruction may be supplemented by means of supervised correspondence study, thereby increasing the available vocational offerings.

#### Major Contributions of this Study

The major contributions of this study are found in (1) the unnecessary adherence of the small high school to the college-dominated curriculum, and (2) the plans for enriching the offering and thereby extending the influence of the small secondary school.

1. Dolch, E. W. "Geographical and Occupational Distribution of Graduates of a Rural High School," School Review, Vol. XXXIII, pp. 413-21, June, 1925



CHAPTER TWO

COLLEGE PREPARATION

## CHAPTER TWO

### College Preparation

#### Purpose of Chapter

The purpose of this chapter is to show that much of the work in the secondary school may be freed of college domination. The succeeding chapters will show how the small secondary schools may expand their offerings to better serve their communities. Thus it is hoped to project an "emancipated" high school which will promote the welfare of society and the adjustment of the individual in society. What is sought is not a traditional culture for all pupils, but effective membership in society, not a so-called high standard of literary scholarship, but an intelligent appreciation of the immediate and remote environment--social, utilitarian, aesthetic--and a cooperative activity in improving it.

"The purpose is not preparation for the larger life; not a mind disciplined by activities removed from life, but by successful response to actual life situations." <sup>1</sup>

"The small high schools of the United States are being dominated by entrance requirements of higher educational institutions to such an extent that secondary education can not be organized with proper regard for local community needs." <sup>2</sup>

1. Mark, Paul R. and Devericks, R. R. "An Accounting of General Values in the Small High School Curriculum," School Review, Vol. XXIX, pp. 110-134, February, 1921.
2. Mooney, William B. "The Relation of Secondary Schools to Higher Schools in the United States," Pedagogical Summary, Vol. XXIII, p. 403, September, 1916.

"Ninety-eight per cent of the principals of high schools with an enrollment under two hundred, in the New England states, maintained that community needs should come before college requirements, and sixty-five per cent of the principals stated that existing college entrance prescriptions definitely conflict with community needs. This testimony comes from New England where it might be said that high school principals are, as a group, 'very conservative'." 1

Comparison of recent statistics with those of a decade ago indicate little change in the general features of the small high school curriculum. In a minor way, however, encouraging changes seem to be taking place.

"Latin and other foreign languages have apparently decreased in importance as required subjects; mathematics has lost some ground as a common requirement for all pupils; ancient history and certain special courses in history, such as English history, have somewhat declined in importance. Such social studies as community civics and courses dealing with social and economic problems and general science as an introductory course in science have gained in frequency in the small high school curriculum. Practical arts other than manual training, agriculture, and homemaking, have become more common in programs of study. Commercial subjects are now receiving much emphasis." 2

It is necessary to make as few standard requirements for the college preparatory group as will meet reasonable demands of the higher educational institutions, taking into consideration of course the type of community and its ability to pay for educational facilities.

1. Davis, Jessie B. "The Influence of College Entrance Requirements on the Public High Schools of New England," School Review, Vol. XXI, pp. 445-451, June, 1923.
2. Ferris, Gaumnitz and Brounell, The Smaller Secondary Schools, Monograph, National Survey of Secondary Education.

It should be here stated that up to date neither accrediting agencies nor colleges have been able to agree to any comprehensive plan of preparing pupils; that there is little correlation between the conventional subject-matter prescriptions for admission to, and the offering of the first year in the college; that certain institutions have adopted rather liberal entrance requirements with success; and there is no reason to doubt that small high schools if allowed a maximum of latitude will as ever provide the colleges with well prepared students.

#### Adequate Preparation for College

There seems to be no definite idea of what constitutes college preparation. Associations and agencies have felt for the most part that the college should not be restricted in setting its own requirements.

The requirements for admission to colleges of the Southern Association shall be the satisfactory completion of a four year course of not less than fifteen units in a secondary school.

"The National Association of Secondary School Principals has never printed, nor has it a committee that has come through with a definition of 'college preparation'." <sup>1</sup>

"The New England College Certificate Board does not undertake to define the requirements for admission to college, but merely determines what schools can prepare students to meet the requirements of the several colleges belonging to the Board." <sup>2</sup>

1. H. V. Church, Sec-Treas. of National Association of Secondary School Principals.
2. Dean Frank W. Nicholson, Secretary, New England College Entrance Certificate Board.

If students do well in these colleges the high school is rated Class A. If for any reason pupils from a high school do not maintain good records, the school loses its certification privilege until the Board sees fit to reestablish it.

An examination of the catalogs of some of the institutions of higher education in New England show that they require a variety of courses preparatory to admission. The prescribed courses in all cases are limited to English, foreign languages, mathematics, natural science, and social sciences.

Would such a range in entrance requirements be anticipated unless the college is adapted to care for varied entrance specifications? In order to be certain of meeting the admission requirements of all of these colleges, a student must have completed the following sixteen units: English 4, foreign language 5, mathematics 3, natural science 2, social science 2. This means four college preparatory courses for each high school year.

MINIMUM PRESCRIBED COLLEGE ENTRANCE UNITS  
OF SEVENTEEN NEW ENGLAND COLLEGES

TABLE I

<u>College or University</u>	<u>English</u>	<u>Foreign Lang.</u>	<u>Mathematics</u>	<u>Natural Science</u>	<u>Social Science</u>	<u>Total Prescribed</u>
Boston University	3	3	2½		1	9
Harvard	3	3	3	1	1	11
Massachusetts State	3	2	2½		1	8½
Mt. Holyoke	3	5	3	1	1	13
Simmons	No rigid prescription--	recommenda-	tion of			
Smith	3	5	2	1	1	12
Tufts	3	3	3		1	10
Wellesley	3	5	3	1	1	13
Wheaton	No rigid prescription--	recommenda-	tion of			
Williams	3	5 or 6	3		1	12
Worcester Tech	3	2	3½	2	1	11½
Bates	3	3	2½		1	9
Bowdoin	3	3 or 4	3		1	10
New Hampshire	3		2	1	1	7
Middlebury	3	3	3			9
Vermont	3	2	2½		1	9½
Brown	3	5	3		1	12

Note: Four years of English and one year of U. S. History required by Mass. High Schools

In English 3 units are allowed for 4 years of study.

TABLE II  
Range of Prescribed Units  
for Admission to New England Colleges

	<u>English</u>	<u>Foreign Language</u>	<u>Mathematics</u>	<u>Natural Science</u>	<u>Social Science</u>
Minimum	0	0	0	0	0
1st Quartile	3	0	2	0	0
Median	3	2	2	0	1
3rd Quartile	3	2	2	1	1
Maximum	4	5	3	2	2

Report on Committee of College Entrance Difficulties <sup>1</sup>

"The committee concludes that colleges generally are making or considering modifications in their requirements that are bringing the secondary schools and colleges into closer agreement, and resulting in a better understanding as to the kind of preparation that determines fitness to do college work successfully.

"Colleges are inclined to permit the secondary school the necessary freedom to develop an educational program to meet the new and changing needs of society, provided their candidates indicate intellectual ability and capacity to do academic work.

Among the New England Colleges that have made definite announcements of changes in requirements are: Amherst, Brown, Dartmouth, Mt. Holyoke, Simmons, Smith, Tufts, Vassar, Wellesley, Williams, and Yale.

The most important changes:

1. Reduction of the prescribed units in Latin to 2, or the substitution of another foreign language for Latin.

a. In some cases, as Tufts and Amherst, preferences are given if Latin is offered.

b. Mt. Holyoke, Smith, Vassar, and Wellesley will now accept five units, three in one and two in another foreign language. These colleges advise, however, that units in Latin should be presented.

2. A growing tendency to reduce the three unit requirement in mathematics to two units, including algebra and geometry.

3. The greater scope for selection of units from a group of electives heretofore not generally accepted, as art, music, Bible, social sciences, other than history, and some others, if accepted by the secondary school toward graduation.

1. High School Principals Association of Massachusetts, 1935



4. "Some colleges that formerly admitted candidates entirely by College Entrance Examinations will now admit candidates that are in the upper fourth, fifth, or seventh of their classes, and a Scholastic Aptitude Test.

General Summary of Prescriptions

	<u>Units</u>
English	3
Foreign language (Preference for Latin)	3, 4, or 5
Mathematics	2 or 3
Science	1 or 2
History	1 or 2
Electives	3 to 5
Total Required	15

Recent Trends in Regard to  
Subject Requirements For College Entrance <sup>1</sup>

Dean Work of the University of Chicago, Dr. Brounell, studying student achievement at the University of Washington, Proctor and Babenhaugh at Leland Stanford, and many others conclude that

"it does not make so much difference what a student has studied in secondary school as it does how he rated in what he did take."

The same National Survey Bulletin gives data on the subjects prescribed by colleges for entrance. The data show that

"New England colleges lead in the relentless prescription of subjects for entrance. A study of the catalogs of some 52 colleges and universities, three-fourths of which are in New England, shows that these schools as a whole have done little during the past five years in lowering actual stated subject requirements.

1. "Articulation of High School and College," Secondary Education Bulletin #17.

Massachusetts Small High Schools  
and Present College Entrance Prescriptions

The subject lists of the small high schools in Massachusetts indicate that most pupils are pursuing courses which are regularly accepted as college preparatory--chiefly because other courses are not available. Otherwise stated,

"The program of studies in the small high school is being shaped rather largely by the entrance prescriptions of the colleges, even though only one out of every four entering the secondary schools can be considered as prospective college students." 1

Table III shows school programs studied by the writer from questionnaires sent to ninety-five small high schools in Massachusetts. Since English and U. S. History are state requirements, they do not appear in the tables.

1. Davis, Jessie, B. "The Influence of College Entrance Requirements on the High Schools of New England," op. cit. p. 452

TABLE III

COLLEGE PREPARATORY UNITS OFFERED IN SMALL MASS. HIGH SCHOOLS, 1935

<u>Town</u>	<u>Enrollment</u>	<u>Latin</u>	<u>French</u>	<u>History</u>	<u>Algebra</u>	<u>Geometry</u>	<u>Physics</u>	<u>Chem.</u>
Princeton	27	1	2	2	1	1		
Mendon	37	4	3	2	2	1	1	1
Oak Bluffs	48	4	2	2	2	1		
Ashfield	55	2	3	2	2	1		
Brookfield	60	4	3	2	1	1*	1	1
Littleton	62	4	3	2	1	1*	1	1
Ashby	67	2	3	2	2	1*	1	1
Dover	68	4	3	2	2	1*	1	1
Plainville	68	2	3	2	1	1*	1	1
Medfield	71	4	4	2	2	1	1	1
Sheffield	73	2	3	2	1	1	1	1
Sudbury	75	2	3	2	2	1*	1	1
Brimfield	79	2	3	2	2	1	1	1
Sutton	87	2	3	2	1	1	1	1
West Boylston	94	4	3	2	1	1*	1	1

Note: English and U. S. History required by State Law and not listed

Ch. 3, Table IV, pp. 29-31, shows vocational courses offered in above schools.

\*Solid geometry and trigonometry if desired.

Ch. 4, Table IX, p. 51, shows types of correspondence courses they are interested in.

TABLE III

<u>Town</u>	<u>Enroll- ment</u>	<u>Latin</u>	<u>French</u>	<u>History</u>	<u>Algebra</u>	<u>Geometry</u>	<u>Physics</u>	<u>Chem.</u>
Douglas	104	2	3	2	2	Plane Solid & Trig. 1	1	1
Charlton	106	2	3	2	2	1	1	1
Hamilton	107	3	3	2	2	1	1	1
Northfield	107	4	0	2	2	1	1	1
Marshfield	109	4	3	2	1	1	1	1
Duxbury	109	4	4	1	2	Plane Solid & Trig. 1	1	1
Merrimac	110	3	3	2	2	Plane Solid & Trig. 1	1	1
Groton	121	4	3	2	2	Plane Solid & Trig. 1	1	1
Huntington	123	4	3	2	2	Plane Solid & Trig. 1	1	1
Groveland	126	4	3	2	2	Plane Solid & Trig. 1	1	1
Westport	138	0	1	2	1	1	1	1
Cohasset	138	4	3	2	2	1	1	1
Hopkinton	139	4	3	2	2	Plane Solid & Trig. 1	1	1
Manchester	135	4	3	2	2	1	1	1
Hopedale	137	4	3	2	2	Plane Solid & Trig. 1	1	1
Ashland	148	4	3	2	2	Plane Solid & Trig. 1	1	1

TABLE III

<u>Town</u>	<u>Enrollment</u>	<u>Latin</u>	<u>French</u>	<u>History</u>	<u>Algebra</u>	<u>Geometry</u>	<u>Physics</u>	<u>Chemistry</u>
Holliston	150	2	3	2	2	1	1	1
Lenox	151	2	2	2	2	Plane 1 Solid & Trig. 1	1	1
Swansea	151	2	3	2	2	Plane 1 Trig. $\frac{1}{2}$	1	1
Sharon	156	3	3	2	2	Plane 1 Solid & Trig. 1	1	1
Medway	156	2	3	2	2	Plane 1 Solid & Trig. 1	1	1
Bourne	165	4	4	2	2	1	1	1
Weston	171	4	4	2	2	Plane 1 Solid & Trig. 1	1	1
Hanover	186	4	3	2	2	Plane 1 Solid & Trig. 1	1	1
Warren	186	4	4	2	2	Plane 1 Solid & Trig. 1	1	1

English for College

It is difficult to determine the content of the various years of high school English. There is such variation in practice that generalizations are dangerous. According to Hosic,

"The first two years of high school English might serve as pre-requisites for college English.

"The aims of composition in grade ten are as follows:

1. In general, clearer and more logical thinking; more correct, more clear and more forcible expression.
2. Particular emphasis should fall on the sentence and on the elaboration of the paragraph.
3. Pupils should learn how to handle typical problems of business correspondence near to ordinary experience.
4. Pupils should have the opportunity to form right habits in the use of reading materials, newspapers, etc.
5. Advance in punctuation." <sup>1</sup>

Two years of English would seem an ample prerequisite for the successful pursuit of college English if the above standards are carried out.

Furthermore, Massachusetts high schools require four years of English which might in many cases be more effective if not dominated by certain classics so necessary for college-board examinations.

Since pupils spend over twenty per cent of their time on English, they might materially reduce their offering in English and yet meet the college standard with success.

1. Hosic, James F. "Reorganization of English in the Secondary Schools." U. S. Bureau of Education Bulletin #2, November, 1917.

### Foreign Language for College

Of the colleges requiring foreign language in the first year only three call for previous study in that language. This indicates that the average pupil in the small high school does not need to spend over 15 per cent of his high school time on foreign languages to meet college requirements successfully.

### Mathematics for College

In New England all colleges of the group represented (Table II, page 12) require a first year course in mathematics. Granting that college mathematics is essential for all college students, what work in high school prepares a student for college algebra, trigonometry, and analytical geometry? A good course in general mathematics should serve the purpose and be sufficient for any pupil with sufficient intelligence to profit by a first course in "College" mathematics.

It seems that the small high schools now offering  $2\frac{1}{2}$  to 4 units of mathematics for college preparation could decrease the offering and still prepare for most colleges in New England. It is questionable whether one year would be sufficient for the mathematics necessary in college chemistry and physics.

### Natural Science for College

In the field of natural science what work is essential to the successful pursuit of the beginning science courses in college?

"It is a common remark that college chemistry departments would rather have a student come from high school without chemistry than with it." <sup>1</sup>

1. Kelley, F. J. The American Arts College, p. 35

What preparation should be made in the small high school? As no college prescribes an advanced course in the first year, it is not essential to have any natural science in the high school--at least as an aim to prepare for college science, yet in the small high schools about 15 per cent of the time is being spent on natural science by a few of the pupils.

#### Social Science for College

All social science courses listed by the colleges are of an introductory nature. Such courses could be carried without high school preparation. Yet 17 per cent of the time spent in the small high schools of Massachusetts is devoted to social science as college preparatory material.

It is not the purpose of this study to recommend reductions in the offering of the above core subjects, but it is interesting to note that reductions could be made without handicap to those preparing for college, and many other courses could be inserted which might be of greater benefit to the majority who are completing their formal schooling in high school.

Clark writes,

"Prediction of college success based upon the completion or non-completion of required high school units (for admission to the college of letters and science, University of California) would be 98 per cent guess." <sup>1</sup>

1. Clark, Willis W. "Status of University Students in Relation to High School Courses," Journal of Educ. Research, Vol. XIII, pp. 36-38, January, 1926.



### Six Units Would Suffice

It would seem that six required units would more than suffice for freshman success in college: English 2, mathematics 2, history 1, natural science 1. Thus, a reasonable program of studies devised for all small high school pupils extending over a period of four years should present those who would make good college material the essential prerequisites for the existing freshman year college offerings.

### Liberalized Trend of College Entrance Requirements

During the past ten years a liberalizing influence concerning college entrance requirements has been noticed in New England.

#### Harvard University

##### New Plan of Admission

- a. Comprehensive examination in four fields. The only one prescribed being English. It is assumed that students have completed courses in languages, science, mathematics, and history, save in the case of an exceptional student.
- b. Any boy from a small school who ranks in the first seventh of his class, with at least seven boys in the class, may be admitted without examinations, upon recommendation of his principal.

Dartmouth's "special certificate" plan allows for considerable flexibility in the small high school program. Admission by this certificate is open to those who stand especially high in their secondary school work. The pupil must have completed college

preparatory work in English 1 and 2, elementary algebra, and plane geometry. Students who qualify enter without examination.

Wheaton College--entrance may be by scholastic aptitude test. No rigid prescription is made concerning the content of the secondary school work.

Simmons College--a candidate highly recommended by a high school principal may be accepted without regard to content of secondary school courses.

Stanford University (Calif.) has gone further than any of the cited institutions in emancipating the small secondary schools. Stanford prescribes two units of English. The other thirteen units may be made up as the high school directs. Furthermore, any graduate of a senior high school is given three blanket units for his work in the junior high school without reference to the work there completed. They consider that

"Whatever is properly a high school subject is to that extent proper and effective preparation for university study; that the high school curriculum is primarily a subject for determination by secondary school men. Aside from insisting upon high standards the university avoids all intent and appearance of dictation." <sup>1</sup>

In the light of facts and theories herein presented it seems evident that the colleges of New England may get well prepared students from the small high schools of Massachusetts and at the same time allow for a maximum of program freedom in the secondary schools.

1. Proctor, W. M. "Curricula Revision and College Entrance Requirements," Annual Report of National Association of Secondary High School Principals--p. 194, March, 1927.

"The National Association of Secondary School Principals urges the colleges, universities, and all standardizing agencies of the United States to make it possible for students to qualify for admission to college on the basis of the work of the upper three years of high school." 1

"From the college standpoint, mental, physical, moral, and social maturity should be the prime requisites for success as the colleges are organized and taught today." 2

Cox would take the position that

"institutions of higher education should be urged to accept high school graduation to satisfy entrance requirements without imposing special subject-matter examinations." 3

Proctor has shown that

"mature students may do college work without high school training." 4

"The scores made on intelligence tests have correlated higher with the marks received in college than have high school marks or college examination marks with college marks." 5

"If social intelligence testing could be perfected, there appears no reason why the colleges should not use them to get desirable students without in any way dominating the small school curriculum." 6

1. Eleventh Annual Meeting of the National Association of Secondary School Principals, p. 239, March, 1927.
2. MacPhail, A. H. The Intelligence of College Students
3. Cox, W. L. op. cit. p. 275
4. Proctor, W. M. "Intelligence Tests as a Means of Admitting Special Students to College and University," School and Society, Vol. XVI, pp. 471-76, October, 1922.
5. "Intelligence Tests for College," School and Society, Vol. XIII, p. 486.
6. "Social Intelligence Tests for New Students," School Life, Vol. XII, p. 471, December, 1926.

Naturally, every effort will be made in the small high schools of Massachusetts to prepare any individual who has a real or fancied need for some specific course which qualifies for some particular college. Many small high schools in Massachusetts at the present moment are being forced to give Latin 3 or 4, solid geometry, English history, trigonometry, and other college preparatory courses to one, two, or three pupils who must have them for college.

Such a practice is inexcusable from the standpoint of the proper use of teacher time and in turn handicaps the large mass of children who have lost the time of that teacher. Courses should not be assigned to a high school program unless they fill a need as great as other subjects which may be desired by the large majority not going to college. In case a preparatory pupil's needs cannot be met on the basis of open competition between courses, the only alternative is to be found in the use of supervised correspondence courses, described in Chapter Four.

#### Summary

In preparing a small high school program of studies with consideration for the entire community, when there seems to be no significant agreement as to adequate preparation for college, six college-preparatory high school units from the three upper years would seem sufficient.

Provided that a student has sufficient maturity, including the requisite intelligence, "training for life," or training for "complete and worthwhile citizenship" will also prepare for college. The small high schools should organize their programs to care for the immediate needs of their pupils, knowing that if these needs are properly provided for, college preparation will take care of itself.

CHAPTER THREE .

VOCATIONAL EDUCATION

## CHAPTER THREE

### Vocational Education

At present, most of the small high schools in Massachusetts are bending every effort to prepare pupils for college, as proved by the weight of college preparatory subjects in the average curriculum.

"There is a recognized need for more diversified offerings in the small high schools." <sup>1</sup>

"The modern school should include nothing for which an affirmative case cannot be made out." <sup>2</sup>

The present small high school group may be served well by certain vocational courses adapted to local community needs.

"The trend is away from foreign languages and higher mathematics to larger classes in special fields." <sup>3</sup>

#### The Problem

To examine the vocational offerings of the small Massachusetts high school and correlate them with the general demand for vocational subjects.

#### Definition

As a definition for this discussion, vocational education may be considered as

"any form of education which is to fit an individual to pursue effectively a recognized profitable employment, whether pursued for wages or otherwise." <sup>4</sup>

1. Rufi, John, op. cit. p.100

2. Flexner, A. F. A Modern School, quoted by Cox, P. W. L, Curriculum Adjustment in a Modern School, p. 124

3. Cox, P. W. L. Curricula Adjustment in the Secondary School, p. 267 ff.

4. "Vocational Secondary Education" U. S. Bureau of Education Bulletin #21, 1916, p. 36

Many courses may be "vocational" as well as "cultural"-- Latin and French for teachers, is one example. The type of vocational education needed in the small high schools of Massachusetts would fall under such headings as practical arts, agriculture, commercial, trade, or industry.

"Many of our so-called trade schools are set up to meet the usual academic requirements as to minimum enrollment, content of courses, especially in related instruction, qualifications of teachers, and time schedule. In addition, contact with trade groups has long past been neglected, teachers have not maintained their trade training, and so the institution is just another school to house young people and to take away four valuable years. This is not vocational education. There are splendid institutions where young people can be and are being trained, daily, weekly, yearly, to take their places in the community as competent workers. Where apprenticeship has an organized part to play in the community, many young people can have an opportunity to work under controlled conditions of training. This is vocational education."<sup>1</sup>

"Vocational schools as such are not within reach of the pupils in our small communities. Many communities are instituting projects to help youth in their present dilemma, such as the Coordinating Council Plan of Berkeley and Los Angeles, California, consisting of the enlistment of the leading community organizations, school officials, and police departments to combat juvenile delinquency and to provide proper educational and recreational facilities for youth; the Colorado pre-employment plan, consisting of vocational training for young people who have completed their general education and are confronted with involuntary idleness; the New Jersey leisure-time program, with its emphasis on recreational activities; and the vocational guidance clinics of Connecticut."<sup>2</sup>

1. Adams, O. D., State Director, Vocational Education, Salem, Oregon. N. E. A. Bulletin, September, 1935
2. Bureau of Education Washington Booklet, Youth: How Can Communities Help?

Many of these plans are laudable and useful, but not pertinent to the problem of the small high school offering. It is the intent of this thesis to suggest in Chapter Four a supervised correspondence program in the small high schools which will help children along vocational, avocational, and cultural lines.

#### Present Vocational Offerings

A study of the programs of small high schools in Massachusetts, from a recent questionnaire sent to 95 high schools, shows that a negligible amount of time is set apart for vocational training of any description.

"Most small communities consider the cost of vocational courses prohibitive and feel that the responsibility for training in vocational fields should fall upon farm, trade, and industrial organizations. They strongly maintain that the small community does well to organize and pay for a college preparatory curriculum and that further vocational preparation must occur in professional or trade schools." <sup>1</sup>

All vocational education of every phase must be paid for by society whether it is carried on in the school or by specialized industries.

"The lack of ability to maintain oneself on a sound economic basis opens wide the door to non-social conduct of all kinds. Ability to earn an adequate livelihood is the fundamental basis of good citizenship." <sup>2</sup>

"Service to society should be the predominant criterion, and individual return either financial or otherwise should be of secondary importance." <sup>3</sup>

1. Carr, H. S. Psychology, pp. 237, ff.
2. Payne, A. F. Administration of Vocational Education, p. 16.
3. Dewey, John, Democracy and Education, p. 143.



TABLE IV

VOCATIONAL UNITS OFFERED IN SMALL MASSACHUSETTS HIGH  
SCHOOLS REPLYING TO QUESTIONNAIRE

## Enrollment 1-100

<u>School</u>	<u>Enroll- ment</u>	<u>Commer- cial</u>	<u>Foods</u>	<u>Clothing</u>	<u>Wood Working</u>	<u>Miscel- laneous</u>	<u>Correspondence Courses Which Have Been Offered</u>
Princeton	27		1	1			
Mendon	37						
Oak Bluffs	48	2					
Ashfield	55		4	4		Home Man. 1 Agriculture 4	
Brookfield	60					Efficiency 1	
Littleton	62	2	2	3	2		
Ashby	67	Bus. Tr. 1					Int. Dec. Foods & Nutr. Household Man.
Dover	68	2					
Plainville	68						
Medfield	71	2					
Sheffield	73	1				Gen. Math.	Mech. Draw.
Sudbury	75						Aviation Int. Dec.
Brimfield	79		1			Home Nursing Home Appliances Bus. Correspondence	
Sutton	87						
West Boylston	94						

Refer to Table IX, p. 51, for types of correspondence courses now desired by schools  
which replied to questionnaire.

TABLE IV

VOCATIONAL UNITS OFFERED IN SMALL MASSACHUSETTS HIGH  
SCHOOLS REPLYING TO QUESTIONNAIRE

## Enrollment 100-150

<u>School</u>	<u>Enroll- ment</u>	<u>Commercial</u>	<u>Foods</u>	<u>Clothing</u>	<u>Wood Working</u>	<u>Miscel- laneous</u>	<u>Correspondence Courses Which Have Been Offered</u>
Douglas	104	3					Latin
Charlton	106	2	2			Home Man. Nursing	
Hamilton	107	2	2	2			
Marshfield	109	3					
Duxbury	109	3	Diet	1	2	General Shop Printing	Mech. Draw., Book., German
Northfield	101	2				Occupations	
Merrimac	110	2					
Groton	121	2	1	1			
Huntington	123	2	1	1		Social Arith.	
Groveland	126	2					
Westport	138	2	2	2		Auto Repair	Eng. History Mech. Drawing
Hopkinton	139	2	2	2		Home Man. Family Relations	
Cohasset	138	2	2	2		Printing	
Manchester	135	2					
Hopedale	137	2	2	3			
Ashland	148	2					

TABLE IV

VOCATIONAL UNITS OFFERED IN SMALL MASSACHUSETTS HIGH SCHOOLS  
REPLYING TO QUESTIONNAIRE

Enrollment 150-200

School	<u>Enroll- ment</u>	<u>Commercial</u>	<u>Foods</u>	<u>Clothing</u>	<u>Wood Working</u>	<u>Miscel- laneous</u>	<u>Correspondence Courses</u>
Holliston	150	3	2	2		Home Man.	U. S. Hist., Math., English
Lenox	150	2	1	1		Spanish	Cafe Man.
Swansea	151	2	1	2			
Sharon	156	3	2	2	2		
Medway	156		2	2	2		
Bourne	165	2	2	2		Household Physics, Public Speaking, Sales- manship	Trig., Solid Geom., Diesel Engines
Weston	171		1	1			
Hanover	186	3	1	2			
Warren	186	3					Consumer Educ.

Cost of Vocational Education

It seems quite impossible under the present educational burden to the taxpayers of small communities to expect any great increase in vocational offering. The small high school educational system cannot hope to introduce vocational education under the old accepted plan of departmentalization under trained teachers. Payne states

"That the 1920 census lists nearly twenty thousand different occupations." <sup>1</sup>

"Each community represents a cross-section of the interests, abilities, aptitudes and probable futures of society at large." <sup>2</sup>

The small high schools of Massachusetts offer few subjects of a vocational nature, and the classes electing these subjects are small because of the conventional organization of the subject matter as above stated. Chapter Four, which concerns the use of supervised correspondence study, will indicate a method whereby vocational as well as other courses, may be offered and supervised by one teacher at a cost within the reach of small communities.

1. Payne, A. F. op. cit. p. 12

2. Dolch, E. W. "Geographical and Occupational Distribution of Graduates of a Rural High School." School Review, Vol. XXXIII, June, 1925, pp. 413-21.

## CHAPTER FOUR

### Supervised Correspondence Study

The direct training required to prepare a pupil for the first year offerings of practically all the New England colleges could well be limited to six units from the senior high schools, grades ten, eleven, and twelve, as indicated in Chapter Two. Chapter Two shows that the major emphasis in the small high schools in Massachusetts is placed on the conventional college preparatory subjects.

There is justification for the suggestion that many secondary school pupils could profit from vocational or avocational offerings, if such offerings could be financed. Pupils could still receive college preparation, and if it seemed desirable, be allowed a broader elective outlook than at present is available. Many additional courses of a cultural nature might well be added, as the traditional college preparatory curriculum cries for expansion.

"Practically all of the courses given in high schools and many that are not, can be and are taught by correspondence." 1

Developments in the field of Supervised Correspondence Study warrant the statement that correspondence courses on the secondary level are going to be rapidly introduced into the high schools within the next decade.

Several conferences have been held during the past two years. These have attacked, in a broad nation-wide way, through study and discussion, the problems of using correspondence courses more effectively in the public school. The first such conference was held in

1. Klein, Arthur J. "Correspondence Study," U. S. Educ. Bulletin #10, p. 16, 1920.

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1. Klein, Arthur J. "Correspondence Study," U. S. Educ. Bulletin #10, p. 16, 1920.

Cleveland in February, 1934, in connection with the annual meeting of the Department of Superintendence of the National Education Association; the second, at Columbia University in August, 1934; the third, at Atlantic City, in connection with the 1935 convention of the Department of Superintendence; the fourth, at the University of Nebraska during the annual convention of the National University Extension Association; and the fifth, at Teachers College, Columbia University.

The Purpose of Introducing Supervised  
Correspondence Study in Small High Schools

Supervised correspondence study has been used in many high schools for one or more of the following purposes.

1. To increase the number of subjects available.
2. To care for the irregular pupil.
3. To care for the student who has failed and who should repeat, but for whom the course is not available in the local high school program.
4. To care for the gifted child.
5. To establish a department for which a teacher cannot be employed.
6. To provide vocational subjects.
7. To offer latitude for post graduates.
8. To decrease educational costs.
9. To decrease the teacher load.
10. To assist invalid or other incapacitated students who are unable to attend high school.
11. To promote adult interest in the problems of the small school curriculum.

Reports from the Field

Benton Harbor Plan

"About twelve years ago the public school authorities of Benton Harbor, Michigan, began experimenting with the use of correspondence courses in their high school for the purpose of enriching their curriculum. The experiment proved to be a success, and now each high school student has a choice of any or all of several hundred courses. The results secured by this method have been declared to be of equal or greater value than that of regular class work and the cost has been found to be much less. Other public high schools have since adopted this so-called 'Benton Harbor Plan,' and at the beginning of 1935 there are throughout the United States approximately one hundred schools using supervised correspondence study courses.

"More than five hundred students have now gone through the correspondence department of this one high school to the entire satisfaction of both the students and the public school authorities." <sup>1</sup>

University of Nebraska

"For the seventh consecutive year the University Extension Division, cooperating with the Dept. of School Administration, is making available through supervised correspondence study a variety of courses with which to increase the present offerings of high schools. More courses are offered this year than in any preceding year.

"During the school year 1933-34 there were twice as many registrations received as in the previous year and five times as many individual courses were distributed. One hundred and twenty-three schools were served. During the past year more than two hundred schools were served, and more than twice as many registrations were received than during the entire previous school year. In addition to registrations from schools in Nebraska there were registrations from schools in South Dakota, Kansas, Iowa, Montana, Nevada, No. Carolina, Virginia, Michigan, and New York.

1. S. C. Mitchell, Supt. of Schools, Benton Harbor, Michigan, in School Board Journal, April, 1933.



"Not only are courses intended for use in high school through Supervised Correspondence study available as individualized material, but the University is also undertaking to build high school courses that will in all likelihood be taught by a local instructor. This is now being done in physical education and drawing. The individualized, almost self-teaching, lesson materials will go a long way toward insuring adequate instruction in these subjects even though the teacher in charge has only the minimum training for this type of work." <sup>1</sup>

Report of Massachusetts University Extension Service  
on Correspondence Courses in High Schools

"A summary of the work done with University Extension Correspondence courses in Massachusetts high schools in eight towns shows 158 enrollments in a great variety of subjects, with 80 per cent completion of a passing grade. We find in these offerings an unusual opportunity for the enrichment of the curriculum of the small high school. Subjects have been taken by ambitious students which cannot possibly be included in the regular school offerings for financial and other reasons. No thought has been given to the use of these courses in other than a supplementary capacity. The mystery of distant instruction is proving both fascinating and stimulating to high school students. Principals have allotted credits for work properly completed on a basis comparable and proportional to that provided for regular courses in the high school curriculum." <sup>2</sup>

1. Nebraska University Extension News, September, 1935.
2. Clark, Everett E., State Supervisor of Adult Alien Education in Massachusetts.

TABLE V

NUMBER AND VARIETY OF COURSES USED  
AT BENTON HARBOR  
DURING A TYPICAL YEAR

Courses: 22

Number of Electors: 161

	Electors		Electors
Sales & Advertising	11	Architectural Design	10
Aviation (Engines)	9	Special Mathematics	5
Auto Repair & Operation	15	Tool Design	10
Electrical	14	Advertising	6
Landscape Gardening	1	Blue Print Reading	2
Civil Service	4	Ship Drafting	3
Mechanical Drawing	49	Cartooning	1
Millinery	1	Sheet Metal	1
Business Management	2	Radio	3
Commercial Art	7	Foundry Theory	3

Other High School Courses: 10

Report to Board of Education  
Plainfield, New Jersey

"A brief report on the work in the correspondence courses inaugurated in the high school shows that no mistake was made in entering upon this venture. There are twenty students enrolled in eleven different courses, advertising, auto-mechanics, aviation, civil engineering, fruit culture, radio, Diesel engines, motor boat navigation, telephone, engineering, and service-station salesmanship. Twenty-nine different lessons have been completed and sent to the International Correspondence School. (A lesson corresponds to approximately a month's work).

"Three classes of pupils are found in our group; (1) the conscientious student who does good work, (2) the conscientious student who does poor work, and (3) the student who is capable but generally indifferent to regular studies and a problem of discipline." 1

Typical Reports from Pupils  
in the Above Groups

Good student--reliable worker (exact words)

"The advantages of this type of studying are many in number. I personally like this method of studying, and I believe that the rest of the class does also. With a little effort on the part of the pupil it is not hard to understand even the most difficult lessons. The added advantage of individual study is that one can progress at his own pace, not waiting until the slowest have caught up with him or rushing ahead with the fastest. It also gives the student who doesn't like "parrot-like" recitations a feeling of security to know that he doesn't have to repeat his knowledge to a teacher. The tests prove whether or not he has absorbed the knowledge which the books contain."

1. Letter to writer from Beekman R. Terhune, Supervising Principal, North Plainfield, New Jersey.

A poor student with a low I. Q.

"I like this type of work because you can learn by yourself, and you can see what you do know and do not. It is hard to skip over anything because the books are written in such a way that you cannot miss anything. I have already learned about crowning of pullies into practice. I used this knowledge to make a belt stay on a pulley at home." (He is studying "internal combustion engines.")

A boy who had been absent about half the time during previous years

"Failed in English last year. This year has been attending regularly and has become more interested in English. The boy is mechanically minded and does repair work of all kinds outside of school."

"This type of teaching or learning is very satisfactory to me as I can go as fast as I want to, or I can go as slow as I want to. It gives me a chance to meditate and think as long as I please over the problem. This course helped me out in one case in relation to the bearings in a Pontiac motor car engine. Beforehand I did not know how many bearings an eight in line automobile engine had, but now I know and I took the job because I know how to go about it. The course helped me so far in a lot of situations."

One of the high honor pupils  
taking a course

"Through this kind of study I have come to realize its worth as a strengthener of character. In my own case I can safely say that it has helped me greatly by improving my mental self-reliance."

The above reports show plainly the very worthwhile nature of the work from the standpoint of boys of various types and capacities.

Courses Offered in the Sudbury High School  
Sudbury, Mass.

In the winter of 1930 the Sudbury High School offered two courses prepared by the Massachusetts Extension Service. Fourteen boys elected Elementary Aviation and eight girls enrolled in Interior Home Decoration. At that time no teacher was available who had any preparation in or knowledge of either subject. It was possible, however, to enlist in the community two well-trained adults eager to help. One had been a captain of the English Flying Corps during the World War.

The courses were pursued with interest and success. The outgrowth of the course in elementary aviation led to the erection of a small work shop where several of the boys are now (five years later) spending a major part of their leisure time designing, constructing, flying, and selling model planes.

The values of adult interest in school affairs in this particular instance cannot be overstated.

The opportunities are as widespread as the varied interests of adults in a community. Even a partial solution of the leisure problem of our youth is a long step toward the production of social stability and the preparation for worthwhile citizenship.

Objections to Correspondence Study

"High powered salesmen, representing commercial correspondence schools, have no doubt induced many unqualified persons to enroll for correspondence courses. It is to be expected that when these students recognize their deficiencies, they are likely to condemn the entire correspondence idea.

"An allied criticism is that students who are qualified for certain types of correspondence study have been permitted to enroll for courses which are not suited to their needs. Due to this lack of guidance, or scientific discrimination between courses, disappointment has likely resulted." 1

The plan herein suggested will prove no panacea for all small high school problems. Many pupils will appear interested and yet fail to finish courses. As the plan is projected, no salesman will enter the picture. The parents, students, and principals will absolutely control the choice and issuance of courses. The University of Chicago has taken special precaution "to insure a reasonably successful issue in event of enrollment. Hervey F. Mallory, Secretary of their Correspondence Study Department, writes:

"All preliminary precautions, however, do not eliminate misfits and disappointment. Nevertheless, the ratio of those who proved unprepared for the course or courses they have chosen is less than one to twenty." 2

Another objection to correspondence study is that some students prove unable or unwilling to pursue a task successfully without the presence of outside pressure. The factor of perseverance should be considered in all human undertaking. Professor Schlesinger of the University of Chicago considers lonesomeness of correspondence study work the greatest difficulty the student has to overcome.

"As now organized in schools using correspondence courses regular attendance and constant supervision tend to keep pupils at their books.

One of the major criticisms of correspondence study is that it eliminates the personal contact between pupil and teacher." 3

1. Noffsinger, John S. Correspondence Schools, Lyceums, Chatauquas.
2. Mallory, Hervey F. "Teaching by Correspondence in the University of Chicago," N. E. A. Proceedings, 1916.
3. Schlesinger, Herman I. "The Teaching of Science Courses by Correspondence," Nat'l University Extension Ass'n, p. 184, 1924.

Professor Smithson quotes a professor of English in the University of California as follows:

"When I recall the persons I have taught in classes at the University of California and those I have taught by the correspondence method many of the latter stand out the more clearly as individuals." 1

Professor Chase has written as follows:

"The teacher, experienced in dealing with boys and girls, young men and young women, who has learned their mental habits, their intellectual reactions to his subjects, their common difficulties, can come to know each student through his written recitations though he has never seen his face, and adapt his teaching lesson by lesson, to his need as the lesson papers progressively disclose it, supply interpretations as need calls for it, giving the sort of guidance that the special case requires and affording requisite stimulus, motive, and encouragement." 2

A student wrote to the University of California as follows:

"It was with hesitation that I began the correspondence course, for I had always felt that that the instructor's personality contributed much to the worth as well as to the interest of a course. It seemed likely to me that in a correspondence course personality would be so indistinct as to be negligible. I am glad to say that your comments and letters spurred me on to increased effort more than the presence of an instructor in a classroom ever did." 3

This statement seems to indicate that the personal element may be present in correspondence study.

1. Smithson, George A. "Teaching English by Correspondence," Proceedings of the Nat'l Univ. Extension Ass'n, p. 96, 1925.
2. Chase, Wayland J. "Teaching By Mail," Proceedings of the Nat'l Univ. Extension Ass'n, p. 66, 1916.
3. Smithson, George A. op. cit. p. 96.

Klein states that correspondence study is an individual method of instruction, almost the only one now practiced on any large scale.

"In supervised correspondence study each student receives continuous individual attention and assistance to meet his special needs throughout the course." 1

If correspondence courses were in general use in the high schools, more pertinent criticisms could no doubt be cited.

#### Arguments for Correspondence Study

Correspondence courses are at present being used extensively and are approved by many teachers. Hoffinger indicates

"That 1,500,000 students enrolled in the private correspondence schools in the United States in 1924, and at least twenty-eight universities of first rank offer correspondence courses and all except one or two give college credit for such work." 2

"In twenty-six higher educational institutions and the Massachusetts Extension Department, 57,985 new enrollments were made in 1924, and in seventeen of these institutions 28,392 courses were completed the same year." 3

From an educational standpoint the use of correspondence courses are of proved worth. From the instructor's viewpoint correspondence courses seem to be of great value. One report reads:

"Some of them (Instructors of English in the University of California) took up the correspondence work in order to increase their incomes, frankly confessing that they had no confidence in the method of teaching by mail.

1. Klein, Arthur J. op. cit. p. 10.
2. Hoffinger, John S. op. cit. p. 14, ff.
3. Prosser, C. A. and Allen C. H. Vocational Education in a Democracy, p. 86.



"Every one of them, nevertheless, within a short time became enthusiastic about the new work, offering that the results were far more gratifying than were those of their regular university classes." 1

"When teaching by correspondence fails to be effective and fails to gain the recognition that is its due, we shall have to look out for the rest of the edifice. We must take particular care to preserve the standards of this work. We know that it is effective; we know that it yields educational results, and in that consciousness we have a pledge of continuance and growth." 2

Correspondence Study and the Secondary School

Correspondence courses of secondary school grade

"apparently given with the idea of preparing students for admission to higher educational institutions are offered by at least eighteen colleges and universities of reputable rank." 3

TABLE VI

LIST OF UNIVERSITIES OFFERING

CORRESPONDENCE COURSES ON SECONDARY LEVEL

Arkansas	Kentucky	Nebraska	Tennessee
Colorado	Minnesota	Texas	Kansas Agricultural
Indiana	Missouri	Utah	Penn State
Kansas	Montana	Wisconsin	Brigham Young
Utah Agricultural			

1. Smithson, George A. op. cit. p. 94.

2. Mallory, Hervey F. 1924 Proceedings of the Nat'l University Extension Ass'n, p. 170.

3. Mayer, James A., Secretary, Nat'l University Extension Ass'n.

Cost of Correspondence Courses to Secondary Schools

Few of the children who desire courses which the small high school cannot now offer are financially able to pay for such courses. The cost must necessarily be kept down and the community school board must be 'sold' on the general extension of subject opportunity. During recent years anything that costs money in the form of visible taxation has been the focus of critical eyes and many school boards which agreed to pay for correspondence courses in 1930-1932 now feel that they should not at this time increase the curricula offerings.

Many of the courses offered by universities are handled by instructors in various departments. In some cases it is supplementary work and not highly or expensively organized.

Catalogs show that the median charges of eleven extension departments list courses at from six to twenty-five dollars with a median charge of twelve dollars for one unit of high school work.

Can the state finance a department of correspondence and an efficient corps of instructors at a cost not prohibitive of the whole plan? In view of the fact that the Civilian Conservation Corps units are taking boys of high school age and are stressing "education for our lost generation," at a cost of \$1,000 a boy a year, it would appear that money could be found for educational expansion which would keep boys in their own homes and in the schools of their own communities.

TABLE VII

CHARGES MADE BY ELEVEN UNIVERSITY  
EXTENSION DEPARTMENTS  
FOR ONE UNIT OF HIGH SCHOOL WORK

Kansas Agrigultural College	\$ 6.66	
Kansas University	9.38	
Utah University	10.00	
Texas University	10.00	
Utah Agricultural College	10.00	
<u>Nebraska University</u>	<u>12.00</u>	<u>Median</u>
Missouri University	15.00	
Indiana University	15.00	
Chicago University	16.66	
University of Tennessee	24.00	
University of Minnesota	25.00	

Report by Sidney C. Mitchell

Superintendent of Schools, Benton Harbor, Michigan,  
to his Board of Education, April, 1932

"In spite of the fact that the idea of a cooperative arrangement between the correspondence schools and the public high school originated in Benton Harbor and that it has been developed here to a greater extent than in any other city, some local citizens, nevertheless, recently demanded that it be discontinued as a measure of economy. Naturally, after one has risked his reputation in proposing such a radical idea, and then followed through by fighting for it on various occasions and seen it accepted as good by educational leaders, he would not stand by and see it abruptly killed without setting up a defense.

"Money,' they say, 'talks.' The language of costs means more to the taxpaying layman today than do arguments for those 'other values' that he comprehends when his income is unimpaired. The direct way to justify the plan then is on a cost basis."

Formula used for computing  
the per capita cost of high school courses

$$P.C.C.I. = \frac{S + A}{N \cdot E}$$

P.C.C.I. --Per Capita Cost of Instruction  
S --Teacher's Salary  
A --Additional Expenses of Instruction  
N --Number of Teacher Periods a Day  
E --Enrollment of Class or Group

"It is obvious that if a teacher receives a comparatively high salary and has a small enrollment in a given group, the P.C.C.I. will be higher. It is interesting to note that the teacher in charge of the correspondence study group draws a salary next to the highest in the teaching staff. Adding to that the amount budgeted for the correction of lessons, the total cost of the correspondence courses is highest of all. The same teacher, or any other who is adapted to this sort of work, could supervise groups two or three times

TABLE VIII

COMPARISON OF SUBJECT COSTS  
BENTON HARBOR, MICHIGAN

<u>Subject</u>	<u>P. C. C. I.</u>	<u>Graph</u>
Agriculture	\$37.50	*****
Home Economics	21.07	*****
Mathematics	20.50	*****
French	18.47	*****
Physics	18.23	*****
Chemistry	18.22	*****
History	16.17	*****
Bookkeeping	15.67	*****
Spanish	15.56	*****
German	14.73	*****
Correspondence Courses	14.68	*****
Music	14.55	*****
Latin	13.62	*****
Biology	13.56	*****
Commercial Geography	12.73	*****
Commercial Law	12.07	*****
English	11.92	*****
Economics	11.40	*****
Sociology	10.70	*****
Art	10.05	*****
Typewriting	8.10	*****
Physical Training	7.09	*****

"as large with equal efficiency, and, of course, decrease the corresponding P.C.C.I. Had mechanical drawing, for instance, been taught entirely through this department this year, the per capita cost of instruction of the correspondence-study department would have been third from the lowest on the list. Now if this method is sound, and I believe leading educators everywhere will agree that it is, this department should be one of the last to be eliminated."

If the cost could be kept to \$12 per unit, many local communities would gladly allow the installation of a few needed correspondence courses. The teacher who supervises the correspondence work would be relieved from other courses, as the pupils drop the conventional type courses.

#### Results of Questionnaire to Massachusetts School Principals

Letters were sent to the principals of 95 small high schools in Massachusetts, requesting their present program of studies and asking them:

1. Have you ever used correspondence courses in your school?

List courses.

2. Assuming that courses, funds, administrative organization and school board approval were available, would you be inclined to broaden your curriculum by the use of correspondence courses to benefit the 85% who will never attend another school?
3. What type of correspondence courses could be profitably offered in your community?

Summary of Replies to Questionnaire  
Sent to 95 Small High Schools of Massachusetts

Number of replies	50
Schools that have used supervised correspondence courses (See Table IV, pp. 29-31)	14
Schools inclined to broaden cur- riculum	40

The small number of replies may be due in part to:

1. A lack of understanding of supervised correspondence study and its now widespread use.
2. A need for further study of the use and advantages of correspondence study.
3. An adherence to the traditional curriculum.
4. A feeling of complete satisfaction with present set-up--so hard to change.

Table IX lists types of correspondence courses which principals would like to introduce if the means were forthcoming.

TABLE IX

CORRESPONDENCE COURSES DESIRED  
 BY SMALL HIGH SCHOOLS IN MASSACHUSETTS

<u>School</u>	<u>Enrollment</u>	<u>Types of Correspondence Courses Desired</u>
Georgetown	25	Literature, Personality
Mendon	37	Vocational
Ashby	67	Vocational
Sudbury	75	Agriculture, Advanced Mathematics, Mechanical Drawing
Sheffield	66	Vocational
Brimfield	79	Diesel Engines
Douglas	104	Industrial Vocational
Charlton	106	Current Literature
Kingston	111	Agriculture
Huntington	123	Business English
Ashland	148	Vocational
Lenox	148	Vocational, Agricultural
Sharon	156	Vocational Guidance
Rockport	197	Solid Geometry, Trigonometry
Bourne	165	Agriculture, Mechanical Drawing
Hanover	186	Cultural Leisure Activities
Warren	184	Mechanical Drawing



The high school principal, it is felt, recognizes the seriousness of this problem; but he is practically helpless to meet it. He knows that by the end of their second year of high school, he can pick out very accurately those students who are likely to benefit by continuing the college preparatory course. For them the curriculum makes adequate provision. The much larger group of students who through no fault of their own, are not able to go to any school following high school are not putting their best efforts into the present school work. What these students need is a different type of curriculum, not courses which attempt to prepare them for some college they will never attend.

Every principal of a small high school recognizes the tremendous waste of the present-day program--the waste of the pupil's valuable time, when he is merely being "exposed" to knowledge in which he has no interest; waste of classroom space; and waste of the teacher's time and effort.

The solution to this problem lies in planning a curriculum that will help all the children in every community to use their capabilities and interests to the fullest extent. The use of supervised correspondence courses will usher in a new day--a day of vital interest to the majority of high school age.

#### ADMINISTRATIVE SET-UP FOR SUPERVISED CORRESPONDENCE STUDY

##### Teacher and Equipment

The mechanical set-up in Benton Harbor, Michigan, consists of a special study room, set aside for the purpose, equipped with study

desks, drawing tables, filing equipment, and a small reference library. Nothing elaborate is needed. One teacher, called the director, is assigned for two periods a day to supervise the work.

#### Type of Teacher Needed

Any teacher with a vision--man or woman--can do it successfully. A special room is not necessary, although it is convenient with groups as large as we have here. There is no reason why this activity cannot be carried on in the "assembly" room of the small high school and supervised by the principal or teacher in charge.

#### Method of Work

Let us say that the student has chosen the course he desires--with the combined help of the advisor, principal, and his parents. Immediately, the director writes to the institution which can best furnish the course. The student is enrolled on the books of the university or agency furnishing the course, but all correspondence between the university and the individual goes through the hands of the director.

When the lessons arrive, the student is assigned a desk and goes to work. He studies regularly each day at the same period. Occasionally he gets help from the supervising director.

#### Lesson Form

Lessons usually come in pamphlet form, covering from thirty to one hundred pages. The last pages are devoted to examination questions which the student answers in writing when he has thoroughly completed his study of the text material. This paper is then sent

by the supervisor for correction and helpful response and is filed upon its return after the student has thoroughly examined it.

Note that each student works independently of any others and proceeds through his course at his own best rate of speed, subject of course to frequent check by the director.

The boy or girl electing a course or courses in supervised correspondence study usually carries three or four regular high school subjects at the same time. Credit toward graduation is given by the high school upon satisfactory completion.

## CONCLUSIONS AND RECOMMENDATIONS

Supervised correspondence courses of the type herein described may best be administered by a State college or State department of Education. There are distinct advantages in carrying on the high school work in connection with a State College.

Little statistical or experimental evidence is available to show the feasibility of the plan, but the present status of correspondence study in the reputable universities of the United States and the apparent success of the plan in operation in many high schools indicates there is reason to expect beneficial results. From evidence submitted, the cost would not be prohibitive, whether financed by the federal government through the extension, by the state through a state college department, or by the communities using the courses. The plan will not meet with success if parents are asked to pay for courses outright.

### Standardization of Credit

More study and investigation are needed, particularly on the question of the accrediting of courses by schools and colleges. The clarification of this question would act as a great stimulus to the expansion of correspondence instruction. Correspondence study should be placed on an optional or selective basis. No attempt should be made to introduce any compulsory elements at this time. By nature the plan requires the greatest amount of cooperation. Correspondence study offers particular advantages to the small high school, but will entail adjustments in organization and administration within these schools. Objectives and methods must be revised, ability to study and

to think will have to supplant the old superficial objectives of quantitative attainment and retention, yet the plan offers possibilities in solving some of our most pressing and most difficult administrative problems.

#### RECOMMENDATIONS TO MASSACHUSETTS STATE COLLEGE

##### First:

To introduce a special summer school course or conference at the State College, where principals of small high schools could study the aims, advantages, limitations, and techniques involved in correspondence study, along with other problems of the small high school.

##### Second:

To determine from this group the types of courses desired in their communities and decide which of these could be well handled by the college professors in different fields.

##### Third:

To introduce by means of a special field agent a few such courses into a limited number of schools where there is sufficient understanding of the plan and the objectives are clearly understood.

##### Fourth:

To expand service as public reception makes it possible and as results justify it.

The establishment of comprehensive state-wide programs of high school supervised correspondence courses seems to be the most desirable means of effecting an enrichment of secondary schools for the following reasons:

1. The quantitative attainment and retention of pupils required during four years of high school attendance under the class-instructor plan, is negligible in comparison to the achievement of an individual during a life time, who under "directed learning" has acquired the ability to study and to think.

2. The use of correspondence courses for directed study is the best known means for administering "directed learning" generally.

3. These courses would immediately solve the problem of enriching the meager curricula of small high schools.

4. They would enable many poorer communities not attempting secondary education to provide at minimum expense high school courses as desired.

5. They would open the way for organizing, in rural districts, evening high school courses in which ten or twelve girls and boys, or men and women, might wish to be directed in their study over as many different courses, under one teacher.

6. They would create an adult enthusiasm for vital material of interest to the entire family and community, and create more wholehearted support of the school as the center of community life and interests.

"With the state center established at the college many well qualified teachers and research workers would be available from the college staff. Graduate students at the university could select research problems definitely connected with correspondence study which they could work out under the expert supervision and guidance of research specialists in their particular field." 1

1. Earl T. Platt, "Supervised Correspondence Study"--A State Function," Junior-Senior Clearing House, September, 1934.

TABLE X

COURSES IN CORRESPONDENCE WHICH MIGHT BE  
OFFERED TO SMALL HIGH SCHOOLS BY THE  
MASSACHUSETTS STATE COLLEGE

Apple Culture  
Apple Harvesting, Storing  
Varieties of Apples  
Apple Pests and Injuries

Breeds of Dairy Cattle  
Dairy Cattle Management  
Dairy Barns and Equipment

Small Fruits  
Essentials of Fruit Culture

Farm Accounts  
Farm Organization  
Farm Records

Vegetable Gardening  
Harvesting & Marketing Vegetables

Commercial Fertilizers  
Hotbeds, Cold Frames  
Propagating Greenhouses

Ice Cream Manufacture  
Horticultural Manufacture  
Floriculture  
Horticulture

Physical Education  
Recreational Supervision

Elementary Entomology  
Elementary Landscape Architecture

Elementary Surveying

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ACKNOWLEDGMENTS

The writer wishes to express his sincere appreciation for the keen interest and whole-hearted cooperation displayed by Professor Winthrop S. Welles, Dr. Adrian H. Lindsey, and Professor Fred C. Sears, during the inception, composition, and completion of this thesis.

The writer is also appreciative of the advice and counsel of Professor Fred J. Sievers, Director of the Graduate School, whose familiarity with the philosophy, aims, and trends of modern secondary education helped greatly in the development of the thesis.

The writer is further indebted to the many high school superintendents and principals who have gladly supplied information concerning their respective school programs and curricula endeavors.

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