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Section Seven of the Educational
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THE COURSE OF STUDY



GREELEY, COLORADO

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Foreword

The publication of this section of the Survey Report comes late. It has been postponed from date to date for reasons that will be duly appreciated only by those who have had responsibility for the framing and administering of curricula for professional schools. The topic covered involves the whole philosophy of education. All the infinitely perplexing questions of values arise as soon as one begins to criticise or construct curricula. And, as we all know, people tend to divide upon these questions, upon the basis of the prejudices ingrained by special training and given consistency by experience. This is the usual and most persistent difficulty of the beginning of faculty participation in curriculum making. The only permanent way *out* is *through*—if faculty participation is to be adhered to as a policy; and in a democracy it would appear as if there should be no doubt of this. It is undoubtedly easier, and perhaps often more immediately efficient, to follow the autocratic method of arbitrary decision. In the long run it is less efficient as well as unjust.

So the report has been delayed for the sake of fuller discussion and more durable unity—the unity of common purpose. It will no doubt seem to some who read the report that it should have awaited further deliberation; for the results are clearly not entirely satisfactory. But there is another point of view. The report crystallizes no opinion. No one is satisfied with the curricula so far arrived at. Perhaps the next phase of the discussion can be best initiated by bringing together the results of previous deliberations. The net gains so far are considerable, as it seems to me. The nature of the task of making a satisfactory professional program of studies duly differentiated into curricula, each bearing with conscious purpose upon the needs of the typical teaching positions to which graduates of the College go, is certainly now very much clearer to us all than it was when the committee began its work. And there can hardly be any reasonable doubt that generally speaking the constant effort to be intelligent in attitude toward the courses and curricula of the school has had some liberalizing effect upon everybody involved—including the President, who has constantly resisted the temptation to make *ex cathedra* decisions when things lagged.

The importance of the matters involved in this report calls for a somewhat more extended comment. And it is opportune to emphasize at the outset some of the more tangible of the durable results of the committee's work. The guiding principles worked out in the committee and the tentative effort to apply them to the defining of the "core requirements" are at least highly suggestive. They antedate any similar effort, so far as I have been able to discover, and at least look in the right direction. Items 7, 8, 9 and 10, page 59, reflect a point of view which up to that time, so far as I can discover, had not been proposed elsewhere and which now (since the appearance of the epoch-making *Bulletin Number Fourteen* of the Carnegie Foundation, 1920,) seems likely to come into general favor, under the name of *Professionalized Subject-Matter Courses*. If the reader, however critical, keeps results of this sort in mind and remembers that they are products of faculty participation in the effort to develop a purposeful set of curricula for teachers, there will be no danger of his discounting the method adopted or of overlooking the less tangible results.

A few further comments upon the several parts of the report seem

desirable. First, a historical study of the changes of a school's curricula can probably not often give the information that would be most enlightening to those struggling with the problems of making purposeful curricula. For example, the actual guiding principles that have operated in the past can usually only be inferred somewhat uncertainly from one's knowledge of contemporary educational opinion. They are very seldom stated explicitly. Where an approach to a statement of grounds is made by this or that independent school, it is usually in terms so philosophical and remote from the typical situations of the public school teacher as to have only a very general bearing upon the concrete problems of preparation; similarly the cause of the variations of course requirements and of curricula are usually quite undiscoverable. The arguments underlying such changes would be enlightening to other schools if they could be had. It would be helpful to know the amount of faculty participation that went on as preliminary to shifting the curricular scenery; and of the amount of interplay between faculty and public school leaders and state department in the shaping of the state course of study; and so on. Occasionally it is possible to infer that this or that change was due to some contemporary development of practice. The introduction into Colorado State Teachers College of the *elective principle*, for instance, might plausibly be attributed to the rise of that practice in the universities. It could hardly be attributed to any development in the field of professional preparation of teachers.

In brief, in the absence of a faculty organization for participation in such matters as these there is not likely to be any record by studying which a history of a school's curriculum could be freed from mere conjecture in the most important matters. Having this in mind, Mr. Wright was wise in focusing largely upon the account of the efforts of the committee that was appointed in 1917, and the record he has provided will be available for future students of the method of growth of professional curricula.

The several other parts of the report will likewise serve admirably to document, for future investigators, other phases of the problem of democratic curriculum making. Your attention is invited especially to the faculty's replies to the questionnaire upon the curricula.

Our most serious doubts are probably not those gathering about the proper length of curricula or about what would be an adequate preparation for the teachers of American children. Expediency unfortunately settles in advance very much of those problems—and on a level *lower than our knowledge of the needs of teachers and the potentialities of children warrants*, if we could help it. Those to whom it seems clear that the elementary subjects though "common" are far from being "common-place" (except when taught by insufficiently educated teachers) will probably be less disturbed by the large place still given to those studies in the curricula than by the question of how to get them treated both liberally and with due artistry. Not mere reviews, "re-hashes," as Mr. Hadden calls them, but "new views" on a college level as Mr. Bagley specifies.

This brings us to the "core" studies of the curricula. Mr. Hadden has compactly assembled the varied reactions of the faculty to the "constants" which the committee agreed upon after nearly a year of discussion. His summary constitutes a very valuable source book for administrators of teachers colleges. It reveals with unique vividness the range and variety of faculty opinion, and should be of distinct service to all subsequent investigators of the **conditions** of effective teacher preparation. This section will repay the most careful study. With regard to the diversity of opinion, it seems that we may safely conclude that in general outline the existing practice in schools for teachers is sound,—namely, teachers have certain common responsibilities which

all assume by virtue of being teachers and that *regardless of their specialties they must have the common preparation so implied*. The common elements of the problem of instruction seem to require of all a group of studies dealing with the nature of children and of the learning process. The common problems of the nation likewise require a certain common knowledge on the part of teachers. And the nature of the institution in which teachers work is a powerful factor in the outcome of their work and indicates another field of necessary common knowledge. In short, laudable as the specialist's belief in the efficacy and sufficiency of his specialty is, it becomes obstructive when not balanced by being seen in relation to the social purposes of the curriculum as a whole. Until convincing proof that such "constants" are not in the interest of the best preparation is available, we should conclude that in this case the real problem is only that of getting the right content for Educational Psychology, Educational Biology, Educational Sociology, the Principles of Education, Educational values, the History of Education, and the like; of securing the most effective order of topics and courses, and of getting due coordination of these with other educational work.

The results of the attempt to discover typical deficiencies in the preparation of graduates from the College will also repay close study. It would probably have been useful to subject these returns to statistical analysis, to see if possible what the preponderant factors are. But the general impressions given are valuable and may be close enough to the truth. They confirm a *priori* judgment.

The analysis of the Course of Study for 1917-18 presented brings to the foreground one other very significant point. The author's reaction to "group electives" seems to have the very soundest judgment on its side. Courses can not rationally be regarded as equivalent to each other. Where such an assumption is made his conclusion that "we can assume that no course is really needed" is quite logical. Either that, or else the practice should be regarded as a confession that the needs of the teacher are undiscoverable. The elective principle has very small place in any professional school—the shorter the period of study the less place. Its application is practically exhausted with the election of a particular field of work. Within the chosen field practically everything should be prescribed by these who know what "the characteristic pressures" of the work actually are.

The discovery of needs is a complex undertaking. Needs have a double aspect—referring to the usual pressures, which are more or less well known, or can be; and to deficits. A good curriculum can not be made out with reference exclusively to either one. Probably we shall ultimately agree that in most professional schools the needs of the first sort are the first consideration. At least they are ordinarily the most pressing, and from the satisfactory meeting of such needs we may expect the most fruitful approach to those of the second sort.

The comments Mr. Hadden makes on the necessity of interrelation and coordination of "special subjects" and their functional connections with other lines of school work seem quite to the point. It is in effect a reiteration of the idea of organization which has been steadily developing throughout the course of the survey.

This final section of the Survey Report closes an arduous piece of work, which it can hardly be questioned has been of the highest practical value. The original idea of "taking stock" in order to find the clues to the most fruitful development of the College seems to have grown into a permeating influence of most dynamic quality. The output of the College in the way of educational publications has leaped into prominence, and with this increased personal activity of the producing personnel goes the certain assurance of an increased efficiency of class room work, which is the moving goal of every effort to improve educational service.

J. G. CRABBE,
President.

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INTRODUCTION

by G. R. Miller

This Survey shows the evolution of the curriculum of Colorado State Teachers College of Colorado, and offers some free criticism of the professional and social value of the curriculum as now organized and operating.

One constantly apparent fact is developed by this survey; viz., the steady progress of the curriculum from the time of its inception until now. Its beginning was on a strictly professional basis. This teacher training institution started as a technical vocational school, and has not at any time departed from its original declared and chartered purpose. The course of study has undergone many changes, always liberal in purpose, but adhering constantly to the viewpoint of the training of teachers for public service. This fact is emphasized again and again in the publications of the institution during the past twenty-five years. A noticeable feature of the curriculum in this school is the logical development of the three sciences on which the institution now bases its Science of Education. Biology was the basal viewpoint in the early curriculum, and was the scientific foundation on which the Department of Psychology was evolved in this institution; and on the basis of these two sciences the Department of Sociology was developed. This was a sound sequence because it is historical and also the logical order of the general evolution of these sciences; and they remain at the present time as the professional foundation in our preparation of students for the study of education. This sequence of development is unique in teacher training institutions, and probably is not paralleled in any other teachers college in this country, either in time, order, degree of development, uniformity of required study, or planned correlation of these sciences as prerequisites for the study of education. The entire plan is a distinctly strong feature in our curriculum, and our committee emphasizes it in this report because of the superior opportunity which it has offered in the past, and still offers as a scientific basis for the further evolution of our curriculum.

This College has at no time copied its course of study from the procedure of other schools. This Survey shows clearly that our curriculum has evolved strictly out of our own felt and appreciated needs, not only because we were a pioneering western school, isolated in our earlier days from the greater thought centers, but probably more truly, easily and soundly because we have based all our study of education, both theoretical and practical, on a sound scientific basis.

The Survey traces the evolution of the Senior College curriculum as a direct development from the old Normal School program of study; and here again the new procedure was based not on the individual notions of members of committees, but on the permanently fixed scientific basis; and the Senior College started its work by advanced study in the three basal professional subjects, Biology Psychology and Sociology, as a prescribed foundation for a more liberal study of the Science and Art of Education.

Since 1910 the marked growth of the institution is traceable almost entirely to the expansion of the curriculum of the Senior College and the Graduate College. The growth has been rapid and remarkable, but at no time has our advance been loosely accomplished. All branches of the curriculum have expanded. Specialization has become a marked

development of every department of the College. Industrial and fine arts and applied education in its many aspects have made large progress in our College. The curriculum is liberal and attractive, but it has wisely adhered to the idea that "relationships are the richest part of instruction."

Our committee submits this Survey to the President of the College, not with the feeling that its work is completed in all particulars, but with the reassured belief that our curriculum is scientifically sound, and that its evolution has been from the beginning in thorough accord with the best modern educational thought.

Our biological viewpoint has always been the guarantee of a wise consideration and proper estimate of individual abilities and differences, a sure guide in the study of health, hygiene and physical education. Our psychological viewpoint has furnished the estimate for comparative values in method, and wise procedure in teaching practice. Our sociological viewpoint has insured for us a balanced judgment regarding the social aspects of education and induced a growing emphasis on community needs as the ultimate basis for the evolution of an adequate curriculum, functioning for public service.

THE HISTORY OF CURRICULA MAKING

by Frank Lee Wright

In the past practically the only plan of curriculum making in elementary schools, high schools, normal schools, colleges and universities has been that of borrowing or stealing courses, curricula, or even a whole program of studies, from other institutions. I believe, however, as one studies the evolution of the courses and curricula of Colorado State Teachers College he will be impressed with the fact that the institution has had a pretty definitely planned program and that she has been marching these thirty years pretty straight toward a definite goal.

In fact in the very first catalog there was an attempt made to analyze the needs of teachers and to determine the course of study accordingly. One finds such statements as the following:

"There are three immediate agencies involved in education: the teacher, the child and nature. A classification of the facts, the principles and the laws which are embraced in their 'Inner Connection,' constitutes the science of pedagogics. That a teacher may understand this inner law, he must have a knowledge of nature and mind, and their relations. Out of this arises an understanding of the training necessary for his preparation. It suggests a course of study."

"The central agency is the child. It is a living mental, spiritual entity. It has a body, a mind, a soul. The preparation essential, then, is training of the hand, the head and the heart."

In accordance with the above analysis, the following Course of Study is outlined: Physiology, Hygiene and Gymnastics; Language and Manual Training; Science; History and Literature; Psychology; Ethics; Mathematics; Art, as found in drawing and painting, modeling, constructing and music; Civics.

Each of the above subjects has a paragraph justifying it. For instance the justification for science is couched in the following paragraph:

"He (the teacher) should know the relation of a child's development to nature and its surroundings. He should recognize that the mind is quickened through the senses, that there must be action and reaction of the forces without and within the child. He should be able to lead the child to interpret its surroundings. A child must see the sparkling minerals and flowering plants; it must hear and see the buzzing insects and the singing birds; it must smell the fragrance of the rose that it may know, admire, and act. This embraces a knowledge of science."

Although the plan of attack may not have been entirely scientific, the fact that there was an effort to justify every subject in the program of studies gives proof that there was at least an attempt at scientific procedure. Since the appointment of the present Committee on Course of Study, the methods of procedure, which will be explained later, has been as careful and scientific as is possible, or as much so, at any rate, as the knowledge and experience of the members of the committee permitted.

Since the program of studies in the past has been determined largely by the entrance requirements, a brief discussion of requirements for entrance will be given. As is true of practically every teacher training institution in the country, this institution began with the regulation that eighth grade graduates of good moral character shall be admitted. This additional statement appears in the second catalog 1891-92:

1. "Graduates of high schools—will be admitted without examination to the Junior class.
2. "All persons wishing to enter higher than the Junior class will be required to pass an examination.
3. "A two-year course in German or French will be accepted as equivalent to two years in Latin, fitness determined by examinations."

One would take this to mean that those who were admitted to the junior class were required to have two years of language.

In this year, too, provision was made for a year of preparatory work for those who had not completed eighth grade work.

In the catalog for the year 1897-98 there is found (p. 181):

"At a meeting of the board of trustees held June 2, 1897, a resolution was passed making the course three years, namely Sophomore, Junior and Senior years."

"High School graduates or those having at least an equivalent education may enter the Junior class without examination.

"Persons who are practical teachers and who hold first or second grade certificates will be admitted to the Sophomore class without examination."

At this same meeting of the board "a resolution was passed admitting only high school graduates or those who have an equivalent preparation and practical teachers who hold first or second grade certificates. This policy makes the institution a professional school in the strictest sense."

It will be noted that this institution did not start as a high school or an academy, but it did take the place of a high school in a way for a few years. Very soon the purpose of training for teaching was evident, as it was expected that those who enter should either be high school graduates or mature teachers.

Although the matter of terms, semesters and quarters is only indirectly connected with the curriculum, it is of interest in the administration of the program of studies. The term or quarter basis furnishes opportunity of offering a greater variety of subjects in the least possible time and this seems always to have been an attractive feature of normal schools. Furthermore, such a scheme affords opportunity for the teacher in the field to enter for one or more terms or quarters each year, after teaching her six months term of school. The desire to ape or compete with colleges, however, has caused many normal schools to introduce the semester system. This really was rather closely connected with a change in curriculum as well.

Colorado State Teachers College has passed through these various stages, it seems. The institution began with three terms—Fall, Winter and Spring—of 15 Weeks, 13 weeks and 12 weeks respectively. Beginning with the year 1896-97, the terms were 16, 11 and 11 weeks until the school went to the semester basis, in 1900-1901. The reason for the Fall term being longer than the other terms was so that the Christmas vacation could come at the end of this first term. The semester basis was continued until 1904-05 only, when the institution went back to the three term plan.

There has been some sort of special term corresponding to the Summer term, first announced as a "special review school," advertised for every year since the institution began. The first plan was to have this special school of reviews the last three or four weeks of the Spring term. In 1903-04 a summer term of six weeks was announced; in 1904-05 a term of eight weeks; and in 1905-06 there was a return to the six weeks plan until the year 1917-18, when the four quarter system was inaugurated.

It is impossible in the time at my disposal to give a complete history of the development of the program of studies, but I shall give a few representative programs and some of the interesting factors in this development in Colorado State Teachers College.

The following four years work presupposing the completion of the eighth grade, led to the Pd. B. degree, and appears in the first catalog.

First Year		
Fall Term (15 Weeks)	Winter Term (13 Weeks)	Spring Term (12 Weeks)
Arithmetic	Arithmetic	Algebra
Grammar	Reading	Rhetoric
Geography	History	Physiology
Music	Drawing	Calisthenics
Second Year		
Algebra	Algebra	Geometry
School Management	School Management	English & History
Civil Government	Zoology	Botany
Music	Drawing	Calisthenics
Third Year		
Geometry	Geometry	Physics
Psychology	Psychology	Methods
Latin	Latin	Latin
English & History	English & History	English & History
Music	Drawing	Calisthenics
Fourth Year		
Physics	Chemistry	Chemistry
History of Education	History of Education	Science of Education
Latin	Latin	Latin
English & History	Practice (teaching)	Practice & Criticism
Music	Drawing	Calisthenics

Essays, Orations, and Declamations throughout.

In the next catalogue for the year 1891-92 (pages 19-20) an effort at formulating principles for Course of Study making was made. Every subject offered in the course then is theoretically justified. According to the analysis made, the following subjects were justified:

Language—English Grammar, Speech, English Composition, Rhetoric and Latin.

Science—Physiology, Chemistry, Zoology, Botany, Geology, Physical Geography and Physics.

Mathematics—Arithmetic, Algebra, Geometry, Mensuration.

History—Literature and Civics. U. S. History, General History, History of Literature, Civics, Study of Authors.

Art—Writing, Drawing, Kindergarten, Sloyd, Manual Training, Music, Painting.

Professional:

1. Theoretical work—Psychology, Science, Art, History and Philosophy of Education, School Management, Methods, Ethics.

2. Practical work—Psychology, Art of Education, School Management, Methods, Observation and Teaching.

A year of preparatory work for those who had not completed the eighth grade included a full year of arithmetic and composition each, two terms each of geography and spelling and a term each of history and reading.

The new subjects introduced into the four years of normal work are one term of inventional geometry, one term of geology, one term of observation in the model school the term preceding practice teaching, two terms of manual training, two terms of elocution and one term of philosophy of education. (see P. 23)

There was added a post graduate year for the year 1892-93, consisting of the following subjects:

Fall Term (14 weeks)	Winter Term (12 Weeks)	Spring Term (12 Weeks)
English 2 (twice a wk.)	English 2	
Ethics 4	Logic 4	English 2
Trigonometry 4	Analytical	History of Philosophy
Latin 3	Geometry 4	Analytical Geometry 4
Geology	Latin 3	Latin 3
	Astronomy	Chemistry

In the first four years the work was similar to that previously offered. "Elocution and deltsarte" is given a prominent place in the

Freshman and Sophomore years. In some courses, beginning with the Junior year the subjects were given less than five times a week.

During the fifth year of the school's existence, a faculty of seventeen plus a landscape gardener and an engineer handled the following offerings (Pp. 40-45 Catalog 1893-94 with announcements for 1894-95):

PREPARATORY YEAR

Fall Term (15 Weeks)	Winter Term (12 Weeks)	Spring Term (11 Weeks)
Arithmetic	Arithmetic	Arithmetic
Language	Language	Language
Geography	Geography	History
Reading & Spelling	Reading & Spelling	Reading & Spelling
Inventive Geometry	General Arithmetic	

(Note that general Arithmetic follows the course in inventive geometry. This comes near being modern.)

Freshman

Arithmetic	Arithmetic	Grammar & Language
Grammar & Language	Grammar & Language	Geography
Physiology	History—Geography	Elocution & Delsarte
History	Elocution & Delsarte	Drawing & Sloyd
Penmanship	Penmanship	Penmanship
Elocution & Delsarte	Society work	Society work
Society work		

Sophomore

Algebra (4)	Algebra (4)	Algebra (4)
School Management (4)	Lit. & English	Fiction & English
Zoology & Botany	Zoology & Botany	Botany & Zoology
History & English	Political Economy (4)	Elocution & Delsarte (3)
Latin (4)	Latin (4)	Latin (4)
Elocution & Delsarte (3)	Elocution & Delsarte (3)	Society work
Society work	Society work	

Junior

Geometry (4)	Geometry (4)	Geometry (4)
Psychology (4)	Psychology (4)	Methods (4)
Latin (4)	Latin (4)	Latin (4)
History & English	Lit. & Eng. (3)	Rhetoric (4)
Elocution & Del.	Delsarte (3)	Pub. Sch. Science (4)
Drawing & Sloyd	Drawing & Sloyd	Drawing & Sloyd
Society work	Society work	Society work

Senior

Physics (4)	Physics—Chemistry (4)	Chemistry (4)
History of Ed (4)	History of Ed. (4)	Philosophy of Ed. (4)
Model Practice	Model Practice	Model Practice
Music (3) & Eng. (2)	Music (3) & Eng. (2)	Music (3) & Eng. (2)
Geography (4)	History (4)	Arithmetic (4)
Society work	Society work	Society work

POST GRADUATE COURSE

Pedagogics-Logic (4)	Pedagogics-Ethics (4)	Pedagogics-History
Geology (4)	Astronomy (4)	Philosophy (4)
English (2)	English (2)	Chemistry (4)
Trigonometry (4)	Analytics (4)	English (2)
Latin (3)	Latin (3)	Analytics (4)
Applied Sloyd	Applied Sloyd	Latin (3)
		Applied Sloyd

There appears in this catalog quite carefully detailed outlines of the courses such as psychology, science of teaching, etc. Furthermore, one can hardly help noting the change for the better in the above program of studies over that of the first year. The Kindergarten Course is announced for the first time this year.

There is introduced the next year (1895-96), a course in Primary Psychology in order to meet the needs of the kindergartners.

There are few changes for the year 1896-97, but one finds two rather important changes in the post graduate year—the substitution of School Systems for Logic and Child Study for Ethics. A class for teaching the organization of library work was organized also.

For the year 1897-98 the Educational Psychology was introduced. This interesting statement appears in connection with outline of the courses in Psychology: "Psychology is the Blackstone of pedagogics."

For the year 1898-99 only three years work was offered, the sophomore, junior and senior years.

In the year 1900-01, the eleventh year of the school's existence, the institution goes to the semester basis, each semester being 19 weeks in length. This year a committee on course of study, consisting of President Z. X. Snyder, J. H. Hays, A. E. Beardsley, J. W. Hall, D. D., Hugh and Louise Hanum, appears for the first time in the history of the institution. We find for the first time this year opportunity for election by the student. In the Tenth Annual Catalog (Pp. 24-27) there appears the following:

NORMAL COURSE OF STUDY
Introduction and Explanations.

This is an age of specialists. In the professions, in the industries, there is a determined tendency to a differentiation of labor. The underlying stimulus is a more thorough preparation for a more narrow line of work. This stimulus has its potency in the fact that better results follow from such specific training—the greatest product for the least expenditure of energy. With this end in view, the course of study has been revised so that the student has an opportunity to elect some of the work, thus enabling him to specially prepare himself in some particular subject along the line of his tastes.

1. A school year is divided into two **semesters** of eighteen (18) weeks each.
2. A Term Hour, or Point, is one recitation a week for a **semester**, or eighteen (18) recitations.
3. A norm for school work is twenty-five recitations a week. A student who wishes to take more than this must have special permission. Some may be required to take less.
4. Fifty Term Hours, or 900 recitations, are a year's work.
5. A laboratory period must be measured in terms of a recitation period in making Term Hours.
6. The course is divided into Requisites and Electives.

OUTLINE OF WORK

Sophomore

Requisites—44 Term Hours

Algebra	36 weeks.....5	periods.....*10	T. H.
Geometry	36 weeks.....5	periods.....10	T. H.
English	36 weeks.....4	periods.....8	T. H.
Reading and gymnastics	36 weeks.....3	periods.....6	T. H.
Physics and Biology	36 weeks.....5	periods.....10	T. H.

Junior

Requisites—40 Term Hours

Training School—			
1. Observation	36 weeks.....1	period.....2	T. H.
2. Seminar	36 weeks.....1	period.....2	T. H.
3. Arithmetic	36 weeks.....1½	periods.....3	T. H.
4. Nature Study	36 weeks.....1½	periods.....3	T. H.
5. Reading and Physical Culture	36 weeks.....2	periods.....4	T. H.
6. Public School Art	36 weeks.....2	periods.....4	T. H.
*T. H. denotes Term Hours.			
Psychology	36 weeks.....3	periods.....6	T. H.
English and Literature	36 weeks.....4	periods.....8	T. H.
Sloyd, Domestic Economy.....	36 weeks.....2	periods.....4	T. H.
Biology	36 weeks.....2	periods.....4	T. H.

Senior

Requisites—40 Term Hours

Training School—			
1. Practice in Teaching	36 weeks.....5	periods.....10	T. H.
2. Seminar	36 weeks.....1	period.....2	T. H.
3. Geography	36 weeks.....1½	periods.....3	T. H.
4. History and Literature	36 weeks.....2	periods.....4	T. H.
5. Music	36 weeks.....1	period.....2	T. H.
Philosophy and History of Education			
.....	36 weeks.....5	periods.....10	T. H.
English and Literature	36 weeks.....3	periods.....6	T. H.
Reading and Physical Culture	36 weeks.....1½	periods.....3	T. H.

ELECTIVES

Junior—10 Term Hours. Senior—10 Term Hours.

Electives may be selected from the following subjects, or groups. The first numbers following the groups designate the number of recitations per week in each subject, the second designate the T. H.

Group 1—Latin, German, French, Spanish, English and Literature..	5	10
Group 2—Anthropology, Sociology, History, Government	5	10
Group 3—Physiology, Psychology, Pedagogy	5	10
Group 4—Physics, Chemistry, Physiography, Biology	5	10
Group 5—Trigonometry, Analytical Geometry	5	10
Group 6—Art	5	10
Group 7—Sloyd, Cooking and Sewing, Library Handicraft	5	10
Group 8—Reading and Physical Culture	5	10
Group 9—Kindergarten	5	10

In the eleventh annual catalog, for the year 1901-1902, there appear announcements for the normal department and the normal college department. The work intended for the normal department is practically the same as for the year before. The normal college course is four years above the regular four year high school course, and leads to a "diploma, equivalent to the Bachelor of Arts degree." The purpose of the course is to prepare for high school teaching. The student elects his major group from ten suggested groups and gives five recitations a week for the four years to this major. "He is under the immediate direction of the professor of the department to which the group belongs." His minor subject is determined by his major professor and three recitations a week for four years are given to this minor. The professional group is required of all who intend to teach, this group being five recitations a week for four years. English is required throughout the course, four recitations a week during the first and second years and three a week during the third and fourth.

In the Twelfth Annual Catalog, for the year 1902-03, one finds an announcement concerning a Normal Drawing Course for "those desiring to fill positions as supervisors of drawing."

In the fifteenth year of the history of the institution (1904-05) as announced in the Fourteenth Annual Catalog, there was a return to the three terms. There appears announcement also of (1) The Normal Course leading to the degree Pd. B., intended to qualify teachers for the elementary schools, and (2) The Normal College Course of three years, leading to the degree Pd. M., intended to qualify teachers for work in high schools.

It seems that there was not a demand for the A. B. work outlined in the catalogue for 1901-02. There appears again a year of preparatory work for those who are not high school graduates but mature enough to prepare for the regular course in one year. One recitation per week for a term constitutes a term hour. Sixty term hours for the junior year, and sixty-three for the senior year in addition to physical culture, which is required of all students, constitutes a regular year's work in the normal course. Forty-eight term hours aside from physical culture constitutes a year's work in the college course. Here are the offerings.

REGULAR NORMAL COURSE

Preparatory Year.	Junior Year.		Senior Year.		
Per Week Terms Rec.		Per Week Terms Rec.		Per Week Terms Rec.	
Algebra	3 5	Psychology	2 5	Philosophy of	
English	2 5	Pedagogy	1 5	Education	3 5
History	1 5	English	2 5	Seminar	3 1
Physics	1½ 5	Reading	1 5	Teaching	3 5
Biology	1½ 5	Biology	1 5	English	2 5
Geometry	3 5	Music	1 5	Reading	1 5
Physical Culture	3 2	Mathematics	1 5	History	1 5
		Art	2 5	Music	1 5
		Sloyd or Domestic		Physical Culture	3 2
		Economy	1 5		
		Phys. Cult.	3 2		

NORMAL COLLEGE COURSE

First Year.		Second Year.		Third Year.	
	Hrs.		Hrs.		Hrs.
English	2 5 (4)	Psychology	2 5 (4)	Philosophy of	
Electives	10 4	Pedagogy	1 5 (4)	Education	3 5 (4)
Physical Cult.	3 2	English	2 5 (4)	Seminar	3 1
		Electives	7 4	Teaching	3 5 (4)
		Physical Cult.	3 4	Electives	6 4

In the Fifteenth Annual Catalog, for the year 1905-06, there appear outlines of curricula for the departments of Manual Training, Domestic Science, Modern Language, Music, Art, Physical Education and Kindergarten. The following subjects are required in all these curricula:

1. English—Courses 3, 4, 5, 6.
2. Psychology—Courses 1, 2, 3.
3. Pedagogy—Course 1.
4. Education—Courses 1, 2, 3.
5. Physical Education—Six courses in all.
6. Teaching—Three semesters. For kindergarten majors an extra semester of teaching in the primary grades is required.

Besides this requirement for all department majors, certain other requirements are made. As an illustration here are the additional requirements for those taking the diploma in the Department of Domestic Science:

- Cooking: Courses 1, 2, 3, 4, 5, 6.
- Sewing: Courses 1, 2, 3, 4.
- Household Science: Courses 1, 2, 3.
- Chemistry: Courses 1, 2, 3, 7.
- Biology: Course 1.

In the Eighteenth Annual Catalog, for the year 1908-09, under Courses of Study, one finds:

- I. Regular Courses leading to licenses to teach and degrees in the Colorado State Normal School are of three kinds:
 1. The Normal Course leading "to the degree of Bachelor of Pedagogy" and a diploma which is a license to teach for life in the public schools of the State.
 2. The Normal Graduate Course leading "to the degree of Master of Pedagogy" and the life diploma.
 3. The Normal College Course leading to the degree of Bachelor of Arts in Education and the life diploma.
- II. Work required for the various courses.
 1. The Normal Course.
 - a. Eleven Courses of Professional work.
 - Three term courses in Psychology and Pedagogy. (A term course is one subject, 5 times a week for 12 weeks.)
 - Three term courses in Education.
 - Three term courses in Teaching.
 - One term course (Junior Year), Observation.
 - One term course (Sr. Year), Conference in Training School.
 - b. Nineteen term courses elective.
 - There is a large list of offerings here.
 2. The Normal Graduate Course.
 - a. 12 term courses in electives beside any additional work assigned in the Training School in addition to the requirements for completion of Normal Course as indicated above.
 3. Normal College Courses—24 term courses.
 - a. 24 term courses elective and any additional work assigned in the Training School, in addition to requirements for the Normal Course as stated above.

Special Normal Certificates are issued by the departments of Kindergarten, Physical Education, Manual Training, Domestic Science, Art, Music and Modern Languages. Six of the nineteen electives mentioned under "b" above are to be given by the department granting the diploma.

The Twenty-second Annual Catalog, for 1912-13, appeared as a catalog of Colorado State Teachers College. Work of the Junior College and the Senior College is outlined. The requirements for graduation from the Junior College:

Education 1—Observation in Training School	4	Biology 2—Bionomics	5
Education 11—Principles of Education	4	Sociology 3—Educational Sociology	3
Psychology 1—General Psychology	5	English 1—Grammar and Composition	5
Psychology 3.—Educational Psychology	4	Teaching—3 terms	15

It will be noted that of the 120, 45 term hours are required, leaving 75 to be selected at will, except in the case of special diplomas, where a major (30-40 hours) is expected.

For the A. B. the student is required to take a major (40 to 60 term hours) in some department or group of departments. At least half of this major work must be done in the last two years. Biotics in education for three terms is given by the President of the institution. The work is outlined for majors in each department for both two years and four years work. In a special bulletin published in January 1913 additional requirement of 6 hours in sociology for Senior College graduates besides the 9 hours in Education (Biotics in Education), which was not really Education, was made. There were 109 courses in all scheduled. According to this Twenty-Second Annual Catalog, the degrees Pd. B. and Pd. M. were to have been discontinued after August 1913, but they were not discontinued until June, 1918.

In the Twenty-third Annual Catalog, for 1913-14, appeared the first announcement of graduate work leading to the degree Master of Arts in Education, although graduate work was offered during this year and there were three candidates for the degree on June 4, 1914. One cannot study announcements of the graduate work in this institution without realizing that the work was to be of the very highest character and demand research and professional specialization. In this catalog, too, Education 1 becomes Training School 1. That is, courses in the Department of Education were transferred to a department known as Training School.

In the Twenty-Fourth Annual Catalog, 1914-15, appears the announcement of credit of 4 hours for three terms of Bible Study in the Greeley churches.

For the year 1915-16 "all special Department Diplomas have been discontinued and in their place a notation is inserted in the regular diploma indicating the department in which the student has done his major work." The number of new faculty members, a total of at least 19, added this year and the year before is very noticeable. The number of new courses added is very large also. While there were 153 courses offered for the year 1914-15, there was an offering of 297 courses for the Junior College students alone this year. This does not include the many courses for the Senior College and the Graduate College. The Junior College requirements do not change; the only change in the Senior College requirements, was that four terms of teaching was required instead of three terms previously.

The requirements for the year 1916-17 were somewhat changed. Instead of requiring definite courses in every case in the Junior College, an opportunity for choice was given in the case of Education and Psychology. Another course in education was added this year; evidently to take the place of Education 1, which had become Training School 1, three years before. Although there is a course added to the required list, the number of hours remains the same, 45 (normal credit), as the number of terms of teaching has been reduced to two. "No major is granted in the Junior College. Those who wish to earn a major in the Senior College may obtain permission to complete as many as thirty hours in one subject in the Junior College."

In the Senior College, of the 120 term hours in addition to those required for graduation from the Junior College, besides teaching (three or four terms) only 15 term hours are required. These are to be selected from the departments of Biology, Sociology, Psychology, and Education, one or all. "Sixty term hours in one department is the minimum requirement for a major in the Senior College."

During this year 1916-17 the present Committee on Course of Study was appointed, so that the work of the next two years will involve the work of this committee. The committee appointed in January, 1917 is:

- F. L. Wright, Professor of Education, Chairman.
- G. A. Barker, Professor of Geology and Geography.
- E. A. Cross, Professor of Literature and English.
- E. D. Randolph, Professor of Sociology.
- E. B. Smith, Professor of History and Political Science.
- J. D. Heilman, Professor of Psychology and Child Study.

Soon after the appointment of this committee, President Crabbe sent the following memorandum to the chairman:

REORGANIZATION OF COURSES OF STUDY.

1. Committee

Wright	Cross
Heilman	Smith
Randolph	Barker

2. Suggestions

- a. General principles.
- b. Tabulations from a dozen big normal schools and N. E. A. reports.
- c. Report on above to President.
- d. Final report with directions to departments in preparing material for catalogue, courses, etc.

Acting upon these suggestions, the committee planned a study of the following Normal Schools and Teachers Colleges:

California	Los Angeles	Heilman
Iowa	Cedar Falls	Cross
Illinois	Normal	Barker
Indiana	Terra Haute	Randolph
Kansas	Emporia	Wright
Massachusetts	Fitchburg	Smith
Michigan	Ypsilanti	Heilman
Minnesota	Winona	Wright
New York	Albany	Cross
Tennessee	Peabody	Smith
Wisconsin	Oshkosh	Barker

The purpose of this study was to develop in the committee and members of the faculty a reasonable conscious attitude toward current programs of study by the study of courses offered, length of curricula, professional work offered, "core" requirements, etc., of these representative teacher training institutions. Each member of the committee was to investigate the treatment of his own particular subject or subjects in the institutions studied, also. Each member of the faculty was asked to study one or more of these year books and prepare what seemed to him a reasonable curriculum for his department. The chairman sent the following communication to all members of the faculty.

SOME SUGGESTIONS TO MEMBERS OF THE FACULTY IN REGARD TO RECOMMENDATIONS FOR THE COURSE OF STUDY

1. The catalogs of some fifteen institutions will be found in room 100a.
2. Study these catalogs to see just what is being offered and required in your department for the various certificates or degrees offered in these leading normal colleges in the U. S. The committee would like to have your findings.
3. Recommend:
 - a. The subjects in your department, if there are such, which you think should be required of every student who enters C. T. C.

- b. Any subject or subjects in your department which you think would be especially appropriate (or should be required) for majors in the various fields—as (1) domestic science, (2) art (3) history, (4) English, etc.
- c. The group of subjects from which a certain number of hours (name the number) shall be selected in order to have the title of your department or field imprinted upon the diploma.

Work this out for the two-year, three-year and four-year courses.

Suppose we take as an illustration, the requirements for the two-year course in Rural Education. This is simply suggestive.

Required: 52 hours according to the following:

County School Methods, Ed. 6.....	3 hrs.	
Rural Education, Ed. 30.....	3 hrs.	
Current Movements in Social Ed.....	Ed. 12a	}
Current Movements in Social Ed.....	Ed. 12b	
Educational Values	Ed. 8	
School Administration	Ed. 24	
		6 hrs.

Sociology, Music, Methods or what not with catalog number, and number of hours required.

Elective:

Here list a number of courses from which a certain number of hours (give number) of credit are to be selected.

- 4. Remember:
 - a. That C. T. C. is one of the best teachers colleges in the country and should be somewhat more progressive than others.
 - b. That if you are in doubt as to the courses offered in the various departments most appropriate for majors in your own field, talk to the instructors in the various departments and get their opinion.
 - c. If you are anxious to have the very best course of study possible, make the recommendations for your department the best possible.
 - d. Written suggestions from members of the faculty will be gladly received and considered.
- 5. Finally, this material should be in the hands of the committee not later than Monday, January 29.

After this preliminary work was completed, it was decided that a set of guiding principles should be formulated for the committee and placed in the hands of the faculty as well. Consequently the following is a bare summary of the principles formulated by Professor E. D. Randolph.

Summary of Principles

Under the three heads of (I) Content of Course, (II) Organization of Activities, and (III) Administration, we present a brief summary of the detailed analytical outline used by the committee on revision of the program. (Members of the faculty desiring the fuller analysis may have a copy on request.)

- (I) **Content of Course:** This should be determined by (1) the specific problems of educational readjustment which teachers colleges are created to deal with, (2) the teachers' needs of adjustment to the tasks imposed by the public school work, and (3) society's need of
 - (a) protection for children's health and individuality, and of
 - (b) having the next generation adjusted to its most pressing problems of control and progress. Hence we should offer courses

1. To give knowledge and technique required by the public school but not adequately possessed by the teacher.
2. To give points of view and knowledge necessary to secure for society the cooperation of public schools with the spirit of modern education.

Group 1 is covered by the courses in

1. Foundation material for methods
2. Materials and methods for the school subjects—covering
 - a. The history of school experience with the subjects.
 - b. The adaptation of material to differences of ability and destiny due to differences of age, endowment, and sex.
 - c. Observation of good teaching.
 - d. Practice in teaching, under skilled supervision.

Group 2 is covered by the courses in

1. The historical and present relations of school education to social activity, failure, deficit, aspiration, progress, etc., covering
 - a. Adjustment of scholarship, school organization, and administration to individual and social need, and to individual capacity and probable destiny.
2. The preservation and improvement of children's health, and the protection of individuality.

(II) **Organization of Activities:** This should be determined by (1) The specific educational problems that are most in need of solution by teachers colleges, (2) The modern conception of the proper relation of teachers colleges to the public school system (leadership) and (3) The equipment, material and personal, at hand for the purposes of the school. It should

1. Give students, especially beginners, a better acquaintance with their opportunities than they can gather from the catalog.
2. Facilitate students' capitalizing their capacities—through group rather than general requirements, and through generous electives.
3. Require courses only in accordance with the following ideas:
 - a. The necessary attainments for special lines of work.
 - b. The need of public school cooperation with modern education.
 - c. Legal requirements of teachers.
4. Prevent duplication of courses, but secure to allied fields full opportunity to make their peculiar contribution to education.
5. Emphasize a qualitative rather than a quantitative standard for both faculty and students—through placing both at once on a 16-hour rather than a 20-hour basis.
6. Openly recognize the college's leadership function through a prospective adjustment of teaching and research.

(III) **Administration:** This should be determined by the difficulties incident to applying the course of study and securing the ends of the organization of school activities. *Primarily* it covers the following: (1) The characteristic problems of teachers colleges (education), and (2) The typical criticisms

of normal schools and teachers colleges; *secondarily* (3) The need for a reasonable economy in the utilization of the plant. It should

1. Protect students from exploitation—neither requiring nor permitting students to take courses with which they are so familiar as to make other courses more valuable to them; nor assenting to the closing of the most available short cuts to graduation for exceptional students.
2. Facilitate bringing to bear on our educational problems the *available faculty talent*, through office cooperation in research, through arrangements of convenient schedules, etc.
3. Schedule about an equal number of required courses for each period.
4. Schedule one, two, and three hour courses to dovetail with four, three, and two-hour courses, et. seq.

The following is the last page of Mr. Randolph's original thesis justifying certain courses. *The references to the right under principles refer to parts of the original manuscript and not to the summary above.* The system of grading provides that a student may secure *extra credit* for work *exceptionally* well done or he may be *discounted* for work *below normal*. Consequently the minimum hours credit was mentioned in each case, allowing for a discount of from 10% to 20%.

XII. Required program—2 year course—40 hrs.

	Mini- mum hours	Sched- uled hours	
1. Education 8: Educational Values To meet the need for a functional view of subject matter; and the need for ability to co-operate with the spirit of modern educational practice; to lay a basis for the harmonization of educational philosophy and school practice.	4	5	Principles. IV, 1; IV, 2, b, a. II, 2; III, 1, b, etc.
2. Educational Psychology (or Psych. of School subjects) To meet the need for knowledge of the learning process	3.6	4	IV, 2, d, etc.
3. Educational Sociology (3) To meet the need for a social point of view, and the need for a notion of the nature of social institutions and the method of social reconstruction; to lay a basis for wholesome school practice.	3.6	4	II, 2; III, 2; IV, 3, d, e, etc.
4. Observation, Teaching, Methods. To meet the need for concrete standards of teaching the adaptation of material to pupils, etc.	8	10	IV, II, b, I.
5. Biology 2 (Laws of life and inheritance) To meet the need for an appreciation of the inevitability and persistence of individual differences.	3.6	4	I, 1, etc.
6. Library To meet the need for skill in using books and libraries in answering personal questions.	.8	1	IV, a, d.
7. Functional English	3.6	4	Needed for intelligent co-operation with the spirit of modern
8. The Teaching of History	3.6	4	education. These
9. Teaching of Geography	3.6	4	courses will present
10. The Teaching of Arithmetic	3.6	4	the evolution of school experience in the case of each subject. Necessarily they will deal with subject matter.

Elective Program.	20 Hrs. elective	15 Hrs. in each subject. to be offered.
Music	Industrial History	General Science
Art	The Teaching of Reading	Agriculture
Literature	Hygiene of School Sub- jects	Physiology, etc. etc.
Story Telling	Child Interests in Teach- ing	Playground Games
Industrial Arts	Child Welfare	Aesthetic Dancing
Household Economy	Vocational Studies	Elem. Woodwork
Domestic Science	Bacteriology	Typewriting
Drawing	Nature Study	Sociology
	Penmanship	Ed. 11, 24, 12a, etc.
	Human Geography	

Every member of the committee met in regular session practically every session during the Spring Quarter 1916-17. I estimate that the committee was in session more than 40 hours during this quarter alone. This, of course, does not include the enormous amount of time spent in the study of catalogs, in individual conference with members of the faculty, and the like, which in the case of some members, amounted to more time than that spent in regular committee meetings. Certain members of this committee have devoted more time to the work of the committee during the Spring Quarters 1916-17 and 1917-18 than to any four or five-hour course given these quarters.

The committee began its work by having the head of each department appear before it. As it was found that it required too much of the time of the committee to educate each individual, the various departments were parceled out to members of the committee who should collect the material, report this to the committee in regular session and if the curricula presented appeared unsatisfactory, he should represent the committee in securing satisfactory rearrangement.

Some of the accomplishments this year for the year 1917-18 were:

1. The normal amount of work per term for a student was reduced from 20 to 16 term hours.
2. Work was definitely outlined for : 1. The General Course. 2. The Supervisor's Course. 3. Kindergarten. 4. Primary Grades. 5. Intermediate and Grammar Grades. 6. County Schools. 7. Industrial Arts. 8. Fine and Applied Arts. 9. Commercial Arts. 10. Household Arts. 11. Household Science. 12. Music. 13. Physical Education. 14. Agriculture.

3. A "core" requirement of 21 hours was contained in each of these groups, the supposition being that this is a professional school, and that all teachers, regardless of what work they expect to teach, should have certain requirements for graduation. Here are the core subjects:

Library Science 1, The use of the Library.....	1 hour
Education 11, Principles of Education.....	4 hours
Biology 2, Educational Biology	4 hours
English 4, Writing and Speaking English.....	4 hours
Sociology 3, Educational Sociology	4 hours
Educational Psychology 2, Educational Psychology.....	4 hours
Physical Education (with or without credit).	

The committee recommended the substitution of Education 8, Educational Values, for Education 11, The Principles of Education. Still another subject the committee recommended requiring of all students is Education 1, an orientation course. It was the intention of the committee to require this of all students not later than the second term in attendance in the institution. Various members of the faculty representing all the departments of the College were to appear before the students and tell what the particular department which they represented had to offer students. It would have given an idea of the activities and offerings of the institution in an economic way, it seems to me.

Besides these "core" requirements, in each group there were from 27 to 51 hours required as group requirements, leaving from 24 to 48 hours elective for the student. The average requirements for all the groups for the first two years are the professional "core" of 21 hours, group requirements including observation, methods and teaching (8-15 hrs.) of 45½ hours, leaving electives of 29½ hours as an average for each group.

For the completion of the four-year course, "the student at the beginning of the third year must select a major subject for his work. A notation of a major will be made on the student's diploma for the successful completion of 48 quarter-hours in the subject indicated as the major subject. But a student may take as much as 60 hours in the major subject. At least 48 hours of the major work must be done in the Senior College. Students who expect to become high school teachers are required to take a minimum of 10 hours of teaching in the Industrial High School." Persons expecting to major in departments other than those mentioned in (2) above should take the General Course the first two years. There was a total of 494 courses offered in the twenty-four departments of the College. The departments with the number of courses offered follow:

Education	35	Latin and Mythology	8
Educational Psychology.....	11	Literature and English.....	26
Training School	20	Oral English	28
Industrial H. S.	4	Romance Languages.....	46
County Schools	8	Library Science	1
Biological Sciences	26	Music	28
Physical Sciences	17	Physical Education	26
Chemistry	11	Practical Arts.....	29
Geology and Geography.....	14	Fine and Applied Arts.....	20
Mathematics	19	Commercial Arts	29
Social Sciences	21	Home Economics	37
History and Political Science.....	16	Agriculture	14

The justification of this committee, its function, relation to other faculty committees, and the organization for accomplishing its work are set forth by the chairman to the Central Survey Committee in the following communication:

COMMITTEE ON COURSE OF STUDY

1. Need of this Committee on Course of Study.

The program of studies, the number and arrangement of curricula, and the various courses offered, are unmistakably indices of the standing of any institution. If the courses of study are not progressive, then the institution shows lack of progress. Not only are curricula needed which prepare teachers for the various teaching positions, but it is just as highly important that courses be formulated with the idea of "*definitely and sharply meeting actual ascertained conditions.*" Since these conditions are continually changing, the courses and curricula of the institution must also be changed. Even if all the necessary data were at hand to formulate a perfect course of study today, there would still be need of a new course tomorrow.

It is of course useless to say that all the desired data are not available; neither are all conditions favorable for making a perfect course of study. As data are secured and conditions become more favorable, the Committee on Course of Study changes requirements. The fact that all normal schools and teachers colleges are making their most rapid changes now, and that teachers need more than ever to get the social point of view in order that they may meet the requirements of the new social order, it is imperative that the Committee on Course of Study work overtime, if it expects to keep Colorado State Teachers College on the map with a progressive program of studies, with up-to-date curricula which will meet the needs of all teachers preparing for a vital teaching profession.

There is, then, a very real demand for a Committee on Course of Study, provided it realizes the true function of such a committee in such

an institution as Colorado State Teachers College, and proceeds with modern principles of curriculum making.

2. The Function of the Committee on Course of Study.

The function of this committee is to formulate changes in the constituted curricula of this institution, to institute new curricula when there is demand, and to advise the discontinuance of any curricula which have become obsolete as a preparation for teachers of this state or section; to suggest new courses, and syllabi of either new or old courses if in the opinion of the committee changed conditions justify. The Extension Department, with the offering of some two hundred and twenty-five courses, affords the committee one of its largest fields of usefulness along this line. It is highly important that the courses offered by correspondence not only be worth while but that they be the best that can be offered in that field by this institution. But without pressure being continually applied by some individual or committee, the courses offered in the Extension Department may be at least not wholly worthy of this Teachers College.

3. Obstacles to the Work of Committee on Course of Study.

There are many obstacles in the way of the committee's wisely carrying out its functions, among which might be named:

- a. Lack of well-defined guiding principles in the minds of the entire personnel of the committee.
- b. Lack of data with regard to needs of the state for the various types of position, number of graduates from the various curricula of this institution, together with the type of positions they secure, so as to intelligently plan required courses and curricula.
- c. Lack of much needed intelligent co-operation with other faculty committees. If this correlation of the work of the various committees were observed, there would not be such a dearth of data.

For instance, the research committee might furnish data concerning the greatest needs of the state so far as teaching positions are concerned. It may be that if the Committee on Course of Study were made to feel the serious shortage in well-trained rural teachers, it would recommend to the President of the College that the County Schools curriculum and department be materially improved and extended. There is a serious need of close co-operation with the Director of Extension as proper courses are developed and offered in that department.

There is need of co-operation with the War Council so that each course may be made to reflect, to some extent at least, the social conditions as they exist because of the war.

There is needed by this Committee on Course of Study the information which the committee on the placing of teachers might give. Such data as the number of graduates from the various courses, the sort of positions secured, etc., are very much worth while to the Committee on Course of Study.

The duties of the Committee on Duplications and those of the Committee on Course of Study are interrelated.

The Survey Committee will have some facts which will be valuable in assisting the Committee on Course of Study in arriving at a sane basis for reorganizing certain curricula and courses, perhaps.

The Committees on Text Books and Library Material should be advised that the most efficient presentation of many courses offered in the institution is being interfered with because the most valuable and most recent literature on that subject may be at the bindery, or more probably in the library store room packed for binding. The school should have access to any material within ten days after it is desired by any faculty member for class work. Particularly is this delay in securing material

detrimental to Extension courses. When a student is required to wait two or three weeks for material the interest in the course is dead.

- d. Lack of means of placing the work of the committees before the teachers and school men of the country. Since the annual catalog is not read, some other agency such as bulletins which give concretely the information needed concerning our courses should be published.
- e. Lack of a thoroughly unified faculty. *It is impossible to get an adequate response from faculty members on any question regardless of its importance.* To a very important question in regard to needed changes in the curricula of the institution, less than fifteen members of the faculty responded. So long as this condition exists, the Committee on Course of Study cannot hope for a realization of its functions, even though it plans a progressive program of studies. Its work is of little avail without the co-operation of a progressive faculty.

In order that the above difficulties may be overcome to as great a degree as possible the guiding principles shall be reviewed and changed if such change seems advisable, at the beginning of each year, and the type of organization essential for carrying forward progressive curricula effected.

4. Guiding Principles in Curricula Making.

"The general principles that are to guide course makers in teachers colleges must be found in (1) the aims of education, (2) the definition of the function of teachers colleges in the field of education, and (3) the limiting factors of the historical situations in which they operate.

The aim of education "is to CAPITALIZE INDIVIDUAL CAPACITY FOR SOCIAL PURPOSES."

"The function of a teachers college is TO PUT TEACHERS IN THE WAY OF CAPITALIZING INDIVIDUAL CAPACITY FOR SOCIAL PURPOSES. More specifically a teachers college is to enable teachers both to discharge acceptably their usual duties in the public school and at the same time to cooperate intelligently with the spirit and in the technique of modern education."

In regard to the limiting factors of the historical situations, one might remark that "a course for teachers which was so modern as to ignore custom, tradition, and the like, would also be so detached from conditions in the field as to be ignored by practical school men. The way of progress is evolution rather than revolution. It is by progressive forward-facing adjustment to existing conditions, aims, materials, organizations, practices."

Only with definite principles before a committee on course of study can a teachers college hope "to insure to society teachers who will be able to provide a citizenry competent to meet its impending problems efficiently." In short, the Committee on Course of Study must have definitely in mind "what social needs are most pressing, what opportunities exist in public schools for making knowledge of these conditions dynamic." (These quotations are from *Guiding Principles for the Committee on Course of Study*, by E. D. Randolph.) And it must then frame the program of studies with curricula and courses which will imbue every prospective teacher, so far as possible, with this same respect—even reverence—for social conditions.

The following three general principles formulated by Mr. Randolph were adopted:

1. That, since schools for teachers have certain general and characteristic responsibilities that differentiate their work from that of liberal arts colleges they must require of all graduates a core of *common* studies, the "*professional studies of schools for teachers*," which represent the *professional responsibilities common to all public school teachers*.

2. That since each well-marked teaching position represents in addition to these *common* (or professional) *responsibilities a group of specific responsibilities peculiar to the grade of the work and the age of the pupil, additional requirements covering these specific responsibilities should be added,—*giving a number of differentiated curricula,—corresponding to the typical school positions.

3. That beyond these two sets of requirements the elective principle should be applied.

5. Organization of the Committee on Course of Study.

In order that the best results may be attained, the following organization of the committee seems essential:

The committee shall be comprised of at least seven members with representatives from the departments of Extension, Education, Psychology, and Training Schools. Furthermore, it is advisable to have the following faculty committees represented on the Committee on Course of Study: Research, Advanced Standing, Duplications, Official Publications, Teachers Bureau.

There should always be a majority of the committee who have been members of the committee at least one year, if it is possible to secure such majority from the faculty.

It is advisable that the chairman of the committee should have had at least two years experience on the committee.

There shall be a secretary who shall keep a careful record of the work of the committee.

In order that the work of the committee may be carried forward more expeditiously, the following sub-committees are appointed for the year 1918-19:

Text books and syllabi for courses, Heilman, Smith, Randolph; Extension, Randolph, Smith, Wright; Research, Heilman, Hotchkiss; War Council, needed changes due to changed social conditions, such as the war, Smith, Barker; Teachers Bureau, Cross, Bell; Duplications, Hotchkiss, Bell; Survey, Randolph, Cross, Heilman, Smith, Hotchkiss, Wright; Library, use of current magazines, Barker, Randolph, Smith; Bulletins on Course of Study and Revision of Courses as printed in present catalog, Cross, Randolph, Wright.

During the year 1917-18 in preparation for the following year the committee spent at least 30 hours in regular committee meetings and a great deal of time in conference with faculty members. I think I can do no better than to quote from the catalog for the year 1918-19, pages 26-28. This gives largely the work of the committee:

THE COURSE OF STUDY

Colorado State Teachers College is a technical school like a medical or engineering school. Its business is to train teachers for all types of school maintained by the State. The college has abandoned the idea that there is a possibility of training teachers for the various kinds of teaching through the medium of a single course of study or a scattered elective course.

To meet the requirements for teachers for all the kinds of schools the college provides the following courses of study, and asks each student entering in June, 1918, or after, to select a course definitely and to consult the head of the department directing that course of study as a permanent adviser. Students who registered previous to that date may continue with the old course of study and complete that course if they can do so within reasonable limits of time; but all who can readily make the adjustment are advised to select one of the new courses and complete their work under the new plan.

Length of Course.—Each course is planned to occupy twelve quarters (a quarter is approximately twelve weeks in length). Upon the completion of the course the degree of Bachelor of Arts in Education will be granted. The diploma is a Colorado life certificate. Each course is so arranged that it may be divided into Junior College (two years) and Senior College (two additional years). The Junior College course may be completed in six quarters. The student who chooses to be graduated at the end of the Junior College course receives the Colorado life certificate but no degree. Students who come to the College with advanced standing, and those who gain time by doing work of exceptional quality, may shorten the course somewhat.

1. County Schools.
Directed byMr. J. H. Shriber
Planned for those who expect to teach in one or two room schools
and for those who are, at the time of enrolling, in doubt about
what phase of teaching they wish to take up.
2. Education.
Directed by Mr. T. C. McCracken
Planned for students majoring in Education and for those who
expect to become Superintendents and Supervisors.
3. Psychology.
Directed byDr. J. D. Heilman
Planned for students who expect to pursue Psychology as a major
subject for the purpose of doing special work in this field in public
and normal schools.
4. Kindergarten.
Directed byMr. E. A. Hotchkiss
Planned for students who expect to become kindergarten teachers
or supervisors of kindergartens in public and normal schools.
5. Primary Grades.
Directed byMr. E. A. Hotchkiss
Planned for students who expect to become primary teachers.
6. Intermediate Grades.
Directed byMr. E. A. Hotchkiss
Planned for students who expect to become teachers in the in-
termediate grades
7. Grammar Grades.
Directed byMr. E. A. Hotchkiss
Planned for students who expect to become grammar grade or
junior high school teachers.
8. Biological Sciences.
Directed byDr. L. A. Adams
9. Physics.
Directed byMr. F. L. Abbott
10. Chemistry.
Directed byMr. C. J. Blout
11. Geology, Physiography and Geography.
Directed byMr. G. A. Barker
12. Mathematics.
Directed byMr. G. W. Finley
13. Social Sciences.
Directed byDr. G. R. Miller
14. History and Political Science.
Directed byMr. E. B. Smith
15. Latin and Mythology.
Directed byMr. J. H. Hays
16. Literature and English.
Directed byMr. Allen Cross
17. Oral English.
Directed byMiss Francis Tobey
18. Modern Foreign Languages.
Directed byDr. E. S. Du Poncet
19. Music.
Directed byMr. J. C. Kendel
20. Household Science.
Directed byMiss Helen Payne
21. Household Art.
Directed byMiss Helen Payne
22. Industrial Art.
Directed byMr. S. M. Hadden
23. Fine and Applied Art.
Directed byMr. Walter F. Isaacs
24. Commercial Arts.
Directed byMr. A. O. Colvin
25. Agriculture.
Directed byMr. J. H. Kraft
26. Physical Education and Playground.
Directed byMr. Ralph Glaze

General Requirements.—The College requires of all students a group of courses which form a foundation for all teacher-training. These are called "The Professional Core." In addition to these it requires another group which it regards as essential in the training of young people for the teaching profession. Each course, therefore, is made up of the following subjects, plus the departmental requirements listed separately in the sections of this Year Book devoted to each department.

JUNIOR COLLEGE

First Year

	Hours.
1. The Professional Core:	
Biol. 2.—Educational Biology (Bionomics)	4
Ed. 8.—Educational Values	4
Soc. 3.—Educational Sociology	4
2. Other Required Subjects:	
Eng. 4.—Speaking and Writing (Students may be excused by proving proficiency)	4
Hyg. 1.—Personal Hygiene (required only of women students)	4
Phys. Ed.—Physical Exercise (required of all students at least two-thirds of the quarters they are in residence).	
3. Subjects Required by the Department, and Elective Subjects.	31

Second Year

	Hours.
1. The Professional Core:	
Psych. 2a.—Educational Psychology	4
Psych. 2b.—Ed. Psychology (continued)	4
Ed. 10.—The Elementary School Curriculum	4
Pol. Sc. 30.—Political Adjustment	4
2. Other Required Subjects:	
Phys. Ed.—Physical Exercise Courses (at least two-thirds of the number of quarters in residence).	
The following three courses are required of all students who expect to take the Junior College diploma:	
Tr. Sch. 1.—Methods and Observation	4
Teach. 1.—Practice Teaching in the Elementary School	4
Teach. 2.—Practice Teaching in the Elementary School.	4
3. Subjects Required by the Department, and Elective Subjects.	20 or 32

SENIOR COLLEGE

Third Year.

	Hours.
1. Professional Core:	
Psych. 104.—Psychology of the Elementary School Subjects, or Psych. 105.—Psychology of the High School Subjects	4
2. Other Required Subjects:	
Phys. Ed.—Physical Exercise Courses (at least two-thirds of the number of quarters in residence).	
3. Courses Required by the Department, and Elective Courses	40
4. In the Third or Fourth Year.	
The following courses are required of those who expect to teach in High Schools:	
H. S. 105.—Principles of High School Teaching	4
H. S. 103.—Practice Teaching in the High School	4

Fourth Year

	Hours.
1. The Professional Core:	
Ed. 111.—Principles of Education	4
Ed. 116.—The High School Curriculum	4
Psych. 108.—Educational Tests and Measurements (Ed. 116 may be omitted by students who expect to become High School teachers.)	3
2. Other Required Courses:	
Phys. Ed.—Physical Exercise Courses (at least two-thirds of the number of quarters in residence).	
3. Courses Required by the Department, and Elective Courses	37

JUNIOR COLLEGE

Summary:

The Professional Core.....	28
Observation and Teaching	12
English and Hygiene.....	5
Major Subjects and Electives.....	51

SENIOR COLLEGE

The Professional Core.....	19
Observation and Teaching	8
Major Subjects and Electives	69

Total192

Majors.—A student completing any one of the courses of study catalogued in this Year Book will have a notation on his diploma showing that the given subject was his major. This notation will appear only on the Senior College Bachelor of Arts diploma, or the diploma of Masters of Arts.

Minors.—A student earning a major notation may, if he so desires, select some other subject as a minor. He must elect at least twenty-four hours within the four years to earn the minor notation.

In way of summarizing the requirements for 1918-19 briefly, I have selected a dozen of the twenty-six groups in which the student may major and give certain data. Ninety-six hours are required for the completion

of the first two years of work for the Life Diploma, and one hundred ninety-two for the completion of the four-year course leading to the degree, Bachelor of Arts in Education. The courses required such as the professional core, Observation and Teaching, and any other required subjects remain constant for all the departments.

	Average	Education	Educational Psychology	Kindergarten	Primary	Intermediate	Grammar Grades	County Schools	Geology & Geography	Music	Commercial Arts	Home Economics	English
Professional Core (2 yr)	28	28	28	28	28	28	28	28	28	28	28	28	28
Observation & Tchg. (2 yr)	12	12	12	12	12	12	12	12	12	12	12	12	12
Required by Dep't. (2 yr)	31	27	4	29	31	33	36	46	31	31	36	44	28
Other req. subjects. (2 yr)	4-5	4-5	4-5	5	5	5	4-5	4-5	4-5	4-5	4-5	5	4-5
Electives. (2 yr)	20	24	48	22	20	18	15	6	20	20	16	7	23
Professional Core (4 yr)	47	47	47	47	47	47	47	47	47	47	47	47	47
Observation & Tchg. (4 yr)	20	20	20	20	20	20	20	20	20	20	20	20	20
Required by Dep't. (4 yr)	67	77	35	45	60	63	64	96	70	68	68	104	57
Other required subj. (4 yr)	4-5	4-5	4-5	5	5	5	4-5	4-5	4-5	4-5	4-5	5	4-5
Electives. (4 yr)	53	43	85	75	60	57	56	24	50	52	52	16	63

It is not difficult to figure the per cent of the course given to professional work, to electives, etc. Counting Observation and Teaching in with professional work, 41 $\frac{2}{3}$ % of the work of the first two years and almost 35% of all four years, is given to this work. The work required by the department runs from 4 $\frac{1}{2}$ % for the Department of Educational Psychology, to almost 48% for the Department of County Schools, in the first two years. For the four years the required work runs from slightly over 18% in Educational Psychology to over 54% in Home Economics and electives from 8 $\frac{1}{3}$ % in Home Economics to over 44% in Educational Psychology. This elective work has increased from about 16 $\frac{2}{3}$ % in 1901, to the professional work from about 20% for the same year.

It is indeed interesting to note the steady growth of this institution from a normal training high school accepting persons not eighth grade graduates into a four-year teachers college demanding for entrance graduation from a four-year high school and from an institution of five faculty members offering forty courses into an institution with a faculty of seventy-three, who offer a total of four hundred ninety-four courses. And this came to pass in less than thirty years. It is interesting to note how Biology was mentioned as being essential for those preparing to teach as early as 1897-98; how Educational Psychology was introduced this same year and little of "general" psychology was ever offered in the institution; and how nature study was introduced as a required course in 1900-01. One can hardly help noticing the fact that Educational Sociology has for many years played an important part in the curriculum and that the history of education early gave way to The Principles of Education and Educational Values. Surely Colorado State Teachers College was one of the first to require Bionomics for graduation. One can see the standard of the institution rise as he views the following statements:

1900-1901—"A norm for school work is 25 recitations a week. A student who wishes to take more, must have special permission."

1904-05—"Regular year's work usually consists of four subjects of five recitation periods a week with one additional recitation per week in pedagogy throughout the senior year"—21 recitations per week with opportunity to take more.

1918-19—"A student registers usually for fifteen or sixteen hours. In case a student makes more than two grades below 'B' during a given quarter, he will be limited to fourteen hours the following quarter." There is provision for brilliant students enrolling for a maximum of 18 hours.

In conclusion one may well remark that Colorado State Teachers College has had a steady upward march toward a definite goal. Although there may have been a number of mistakes in organization and administration, one cannot study the development of course requirements without a feeling of pride and satisfaction at her accomplishments. As Chairman of the Committee on Course of Study, I am inspired to see to it that the institution keeps its place in the front rank among teachers colleges with regard to courses and curricula.

I am confident that the other members of the committee share with me this desire to keep the program of studies of Colorado State Teachers College among the foremost in the United States.

With this in mind several studies have been made by members of the committee.

The first study made involved a survey of all normal schools and teachers colleges in the United States as to the amount of English grammar, composition and literature required for graduation. Besides asking this requirement, the committee asked for the following:

"To the committee struggling with the problems of a new curriculum there is something much more important than these figures (figures which showed requirements of 30 representative schools). They want to know **what conditions were taken into consideration, what underlying reasons guided the men who made these** English requirements. Hence the following inquiry:

"**Will you kindly state what criteria or guiding principles were applied in selecting (a) the kind and (b) the amount of work in English required for graduation from your institution?**"

Another study undertaken was that of the courses offered through the Extension Department. The study involved the number of courses offered by extension by the members of the faculty, courses for which there is greater demand, estimate of time required to make syllabi, time required for grading units, comparative value of courses given in residence and by extension, difficulties and valuable features of extension work and finally suggestions for improvement of the work of the Extension Department.

The following communication from the chairman of the committee to all members of the faculty offering subjects required of all students in the institution is self explanatory: The Committee on Course of Study asks your reaction to the following question:

"To what extent is your required course (core subject)..... adjusted so as to meet the needs of majors in the various fields such as Home Economics, Industrial Arts, Kindergarten, Grammar Grades, County Schools, etc? Please state specifically the adjustments made in class room exercises, assignments, etc., with regard to majors in each department."

Here is a test planned for and given to all persons enrolled in required subjects for several quarters. The test was ordinarily given by members of the committee or by the office force at the close of the quarter.

Ask that none write his name on the paper.

Answer honestly and carefully. Otherwise the test is useless.

The Examiner should make no comment.

1. What were the best features of this course?

2. In what respects has the course been disappointing to you?

3. In your opinion should the course be required of all prospective teachers? Give definite reasons for your answer.

4. How might the course be improved in your opinion? If you answered Question 3 in the negative, do you think changes could easily be made, which would make it worthy of its place as a required course?

5. Make any suggestions which might be valuable in helping determine what subjects should and what subjects should not be required of graduates of this institution.

By request of Committee on Course of Study and approved by the President.

The committee wanted to be assured that all the work offered in the College was of college grade. Consequently the following information was required of all members of the faculty who taught such subjects as English, Geography, History, Arithmetic, etc.

"The Committee on Course of Study asks your reaction to the following question:

"To what extent is the material presented in your course....., a review of what the student has had, or at least has been 'exposed to' either in the grades or in the High School? Justify this amount whether it be large or small."

One of the most recent studies made by the committee is explained by the following communication to members of the faculty:

October 25, 1918.

TO MEMBERS OF THE FACULTY:

Many changes have been made in the program of the College due to the demands of the government. The Committee on Course of Study desires information concerning the influence of the war, since its beginning, on the work done in Teachers College. Please make concrete statement of the changes that have been introduced into your work, as indicated below.

1. Are you giving courses that are listed by the government as part of the S. A. T. C. program?

2. What changes if any are being introduced into your teaching this year, in function, in method, and in material, as a result of the war conditions?

(This should not include the S. A. T. C. Courses)

3. What changes, if any, were made last year in the function, in the method and in the material of your teaching, as a result of the war?

4. Were new courses arranged or was any change of emphasis made with respect to old courses as a result of war conditions?

A reply not later than Thursday morning, left at Mr. Culbertson's office, will be appreciated.

Very truly yours,

E. B. SMITH,

Secretary of Committee on Course of Study.

The information obtained from these studies was quite satisfactory on the whole.

The returns reveal the fact that the instructors in the College are adjusting their courses to meet the needs of their students and the conditions of the time to a remarkable degree. For instance it was found that in the last study mentioned above, "one reply only indicated no change in the work due to the war conditions; this applied to work in English that deals with an early period of English literature. The same reply indicated that the Shakespeare course is introduced with a war setting."

Furthermore these studies have tended to make the instructors in this institution more critical of the work offered and to call to their attention the necessity of adjustment of the work to meet the needs of the individual pupils as well as to meet the needs of the times.

I close this discussion with a brief summary of the factors which have influenced the courses and curricula offered in this College.

FACTORS IN THE DEVELOPMENT OF COURSES OF STUDY COLORADO STATE TEACHERS COLLEGE

1890-91.—A four year course presupposing the completion "of the grammar department of the public graded schools" or "similar proficiency" as requisite for entrance, was instituted. The Special Review School was announced for the last four weeks of the spring term.

1891-92.—A year of preparatory work was introduced for those who had not yet completed the eighth grade work.

1892-93.—There was a year of work known as the "Post Graduate Course." Entrance requirement data reads: "Graduates of high schools in the State of Colorado who have completed the high school course as adopted by the State Teachers Association will be admitted without examination to the junior class." P. 71.

1893-94.—The kindergarten department was started with arrangement for a special kindergarten certificate.

1894-95.—Kindergarten commencement for graduates from that department.

- 1897-98.—“At the last meeting of the Board of Trustees, June 2, 1897, a resolution was passed admitting only high school graduates or those who have an equivalent preparation and practical teachers who hold first or second grade certificates. This makes the institution a professional school in the strictest sense.”
- 1898-99.—Post graduate course dropped.
- 1899-1900.—Announcement of an examining board for graduates. Work outlined in three years—Sophomore, Junior, and Senior. High School graduates are admitted to the junior class. Persons who hold teachers' certificates will be admitted to the sophomore class without examination.
- 1900-01.—Institution goes to the semester basis. First faculty Committee on Course of Study. A norm for school work is 25 recitations a week. Electives introduced into the institution for the first time. A high school was instituted, offering work through the ninth and tenth years, in order that some of the best students may have an opportunity for practice.
- 1901-02.—Work of the high school outlined for 9th, 10th and 11th grades. Normal College Course leading to A. B. degree announced. Major group requirements instituted, five recitations a week for four years given to this major.
- 1902-03.—Course for supervisors of drawing introduced.
- 1903-04.—Announcement of first regular Summer term, June 14-July 22, 1904.
- 1904-05.—Return to the three terms of 13, 14, and 11 weeks with an eight weeks Summer term.
Fellow assistants in the various departments announced for first time.
Announcement of (1) normal course leading to the Pd. B. degree, intended to qualify teachers for the elementary schools, and (2) the normal college course leading to the degree Pd. M. intended to qualify teachers for work in high school.
Announcement of a preparatory course of one year again this year “for those not high school graduates but mature enough to prepare for the regular course in one year.”
- 1905-06.—Special diplomas granted to students furnishing work in the departments of Manual Training, Domestic Science, Modern Languages, Music, Art, Physical Education, and Kindergarten. Although it seems it was not intentionally done there seems to be a “core” requirement this year.
- 1908-09.—Definitely planned college courses of four years leading to A. B. degree offered.
Conscious core required.
- 1909-10.—Theses required for A. B. graduates.
- 1912-13.—Organization into Junior and Senior Colleges. Year Book appears as the Year Book of Colorado State Teachers College instead of Normal School.
- 1914-15.—Announcement of Graduate College work for which the Master of Arts degree is given. This had been announced first in the Summer Announcement of 1913-14. The first degrees were granted, however, June 4, 1914.
- 1915-16.—All special department diplomas were discontinued “and in their place, a notation is inserted in the regular diploma indicating the department in which the student has done his major work.”

- 1916-17.—Appointment of the present Committee on Course of Study with the avowed purpose of a complete reorganization of the curriculum. Guiding principles formulated, purpose of the committee analyzed and a definite plan of organization for accomplishing the essential tasks.
- 1917-18.—Material changes in the various curricula. Opportunity given for greater choice of majors.
The Industrial High School becomes a four-year high school instead of a three-year course. Graduates of the school have been admitted to the College.
- 1918-19.—Opportunity given for majors in twenty-six groups. Great improvement in the "professional core" and the "make-up" of the Year Book.
Work outlined definitely for four full years above the four-year high school the first time in history of institution. The work of this year is really worthy of a great teachers college. Let us hope that there may be no backward movements in the curriculum making of Colorado State Teachers College.

THE GENERAL COURSE OF STUDY

by *S. M. Hadden*

1. The College offers two, at least, groups of courses. Those that might be called special subject group courses and second, other subjects that might be classed general educational subjects. We offer courses that could be classified under this first heading in practically all the departments of the College. In other words, our institution offers a variety of subjects in various departments. We feel it has a fairly rich curriculum from the standpoint of opportunity educationally.

Below are enumerated a few of the departments in which so called special subject courses are offered: Biological Science, Physiological Science, Geography, Geology, the Social Sciences, History and Political Science, Library Work, Music, Physical Education, Industrial Art, Fine and Applied Arts, Commercial Arts, Household Science, Household Arts and Agriculture.

It is reasonable to assume that in the minds of most people who think of education in terms of the subjects in the curriculum those that have persisted for a long period of time in the public schools are the general subjects of education, which are prominent in all of our public school curricula. In other words, those subjects that have had the traditional background and that make clean handed, white collared genteel subjects. All subjects that are somewhat new and that touch the lives of people from the viewpoints not formerly considered in the field of education might be listed as Special Subjects.

With this statement as a guiding basis for such grouping of subjects, we will be able to select from all the departments of the College courses those that deal with material which touches the experiences and lives of people in ways in many fields not formerly considered essential in the field of education.

Possibly the subjects, reading, writing and arithmetic, with enriching additions would be the only subjects that would not be included in this group of special subjects, but for fear our interpretation is too broad to satisfy the committee, which outlined the fields it wished our institution to report on in this survey, we are confining the major part of this section of the report to such subjects as Music, Agriculture, Household Sciences, Household Arts, Industrial Arts, Commercial Arts, Applied Arts. The grouping enumerated in the last paragraph might be classified under the following heads:

(a) Vocational subjects: those that should be taught in such a way that they will react upon the individual as a member of society, making of him a more efficient unit in that organization, preparing him to earn not only a living but also helping him select the occupation or occupations that seem best suited to him, giving him a wider viewpoint of the possibility or lack of opportunity for an individual to find himself industrially than through his contact with the ordinary system of work outlined in our public school curriculum.

Again it is the thought of the committee that not only the bread and butter side of the vocational work of the individual should be considered but also the side that deals with the individual in his preparation in order that he may become an active industrial social uplifting unit in society. All this means that an individual should be prepared as widely as possible, considering the time allowed for his educational training, to occupy a progressive place in the community in which he lives.

2. All of the special subjects in our school are offered in separate curricula in such groups as: County Schools, Music, Household Science, Household Art, Physiography, Geography, Mathematics, Social Sciences, History, Industrial Art, Fine and Applied Art, Commercial Arts, Agriculture, Physical Education and Playground.

Some of these curricula are organized as two, three, four and five year courses. This group really covers in our College practically the entire group of so-called special subjects that are ordinarily taught in the public schools of the United States together with the so-called educational background that seems to be necessary in the education of a teacher, even if there are no real educational materials that have been selected as final as yet. In other words this so called essential group of material is a variable and is as yet largely unknown.

3. The materials we have defined as special subject materials in section one of this division of the report are in a number of cases required in the kindergarten, primary and intermediate, country schools and general courses. These courses are supposed to prepare teachers for regular grade positions.

We can expect then, that outside of the required core subjects the balance of the work will be largely in the group we are pleased to call the three "R" group. Going over these courses of study carefully we find a very meager sprinkling of work in Music, Art, Nature Study, Industrial Arts, Agriculture, Household Science and Household Art, and a great deal of work in the teaching of such subjects as Geography, Arithmetic, History and Reading, together with Training School courses that bear directly on these particular fields. Again a traditional background. It seems to be because it has been this way in the public schools course of study for a long period of time.

It is really impossible to state to what extent the preparatory now given in these various curricula is adequate, for this would entail a survey of the entire curriculum of the College. We are contemplating making such a survey when we have the time.

4. It is again impossible to state how long the curriculum should be in years to afford adequate preparation. Adequate preparation is such a relative term that it is impossible to define it with any degree of satisfaction. The implication is, however, that every student graduating from the College should be well versed in the general educational field, whatever that means, and in a group of related special fields, and in the presenting of this material to students, in their training for the teaching profession. Note that we said the implication seemed to be—again looking back without any particular reason why.

Our institution trains teachers for the elementary and high school and in some cases for work in higher institutions of learning. The degree of skill in these three groups is largely dependent upon the salary paid for teachers in these various positions. To illustrate: An elementary school teacher with a salary of fifty to sixty dollars per month for from seven to nine months during the year cannot be expected to have as wide an educational training as the individual who is to work for ten months a year at a salary of twelve to fifteen hundred dollars paid in twelve installments. In general we can assume that in the schools of our country the salary paid, is closely associated with the amount of training individuals may be expected to receive in preparation for their teaching work.

Our School then offers a varied curriculum to meet the conditions as stated above. In some cases a two-year curriculum would be really more than a student would be expected to complete if he were going to teach in some of our poorly paid districts. The three year course is supposed to prepare students for high grade elementary schools and small high schools. Our four year course is for the general high schools

of the country. Most of the teachers that finish our graduate course specialize in some particular field, obtaining positions in colleges, normal schools or as supervisors of special work in cities.

For further illustrations of the types of curricula offered in our special department courses I am listing in a general way only, the departments and the required courses for graduation in each of these departments. The work in the special departmental courses falls fundamentally under three main heads:

1. Educational core subjects, or those that the course of study committee has worked out as being fundamental in the fully rounded education of a student preparing to teach.
2. The courses required in a department, or the fundamental group of technical courses necessary for an individual to know, together with the sequential organization of this material in a course of study, will constitute the main material of this group.
3. Courses from other departments that in the minds of some of the teachers in the major departments are necessary if the individual is to be an efficient teacher.

The following pages of this section of the survey illustrate in a definite way types of courses that are offered in special fields or groups of fields.

We had the courses listed below as specials at the time we started this survey.

Our school then offers a varied curriculum to meet the conditions as

1. General Course.

This course is really special in that it solves, or is supposed to solve, all problems not solved in other special courses:

A two-year course planned for those students who expect to become general grade teachers, or who wish to begin specializing in some subject in which they expect to major in the third and fourth years of their College course. Students who expect to become high school teachers of some one academic subject such as Modern Language, History, English, Mathematics, etc., should take their first two years in this group.

Details of the Course

Library Science 1.....	1 hour
Education 11	4 hours
Educational Psychology 2	4 hours
Biology 2	4 hours
English 4	4 hours
Sociology 3	4 hours
Physical Education (with or without credit).....	
Child Hygiene 1	2 hours
Education (selected)	2 hours
Observation, Methods and Teaching	12 hours
The Teaching of Geography 12.....	2 hours
The Teaching of Arithmetic 8.....	2 hours
The Teaching of History 13.....	2 hours
The Teaching of Reading 9.....	2 hours
General Science or Nature Study	3 hours
Electives (as much as 24 hours may be in one department).....	48 hours

2. (a) Departmental Courses of an Academic Type.

Associated with the General Course are particular department majors that may be taken leading to graduation from the four year course of the College with a major notation in that particular de-

partment. The list is not complete in the catalog as new ones are now being added.

(b) Other Special Courses offered in the form of curricula.

3. Supervisors' Course.

This is a course extending through four years of College and planned to prepare those who take it for such positions as school principals, superintendents, and normal school supervisors and training teachers. The work of the first two years of the course is in part prescribed and in part elective, the same as in other courses. The third and fourth years are largely worked out, and will not, therefore, be announced until the opening of the Fall Quarter.

4. Kindergarten Course.

Details of the Course

Library Science 1	1 hour
Education 11	4 hours
Educational Psychology 2	4 hours
Biology 2	4 hours
English 4	4 hours
Sociology 3	4 hours
Physical Education (with or without credit).....	
Educational Psychology 1.....	2 hours
Training School 33	3 hours
Observation, Methods and Teaching	15 hours
Training School 15 or 31	3 hours
Training School 5 or 6	4 hours
Training School 32	4 hours
Training School 37	4 hours
Music 3	4 hours
Physical Education 7.....	3 hours
Physical Education 6.....	2 hours
Art 1	3 hours
Electives	26 hours

Note: Kindergarten students must take adequate piano work unless they have previously had its equivalent.

5. Primary Grades Course.

Details of the Course

Library Science 1	1 hour
Education 11	1 hour
Biology 2	4 hours
English 4	4 hours
Sociology 3	4 hours
Educational Psychology 2	4 hours
Physical Education (with or without credit).....	
Training School 5.....	4 hours
Training School 6	4 hours
Training School 33	3 hours
Training School 1	4 hours
Training School 3	3 hours
Black Board Drawing	2 hours
Teaching	12 hours
Zoology 5	4 hours
Training School 15	2 hours
Physical Education 7 Folk Dancing	2 hours
Art 1	2 hours
Oral English 3	2 hours
Training School 32	2 hours
Electives	24 hours

6. Intermediate and Grammar Grades.

Details of the Course

Library Science 1	1 hour
Education 11	4 hours
Educational Psychology 2	4 hours
Biology 2	4 hours
English 4	4 hours
Sociology 3	4 hours
Physical Education (with or without credit)	4 hours
Training School 1	4 hours
Select two from the following:	
Training School 7	
Training School 8	
Training School 9	6 hours
Training School 11	3 hours
Observation, Methods, Teaching	12 hours
First Aid	1 hour
Psychology 4	4 hours
Physical Education, 5, 7, 8 or 12	2 hours
Select 12 hours from the following:	
Geography 12, Geography Methods	2 hours
Reading 9, Reading Methods	2 hours
Mathematics 8, Arithmetic Methods	2 hours
History 13, History Methods	2 hours
Nature Study, Agriculture, or Zoology 5	3 hours
Civics, Civics Methods	2 hours
Music 2, Music Methods	2 hours
Public Speaking or Story Telling 13	3 hours
Electives	31 hours

7. County Schools Course.

Details of the Course

Library Science 1	1 hour
Education 11	4 hours
Educational Psychology 2	4 hours
Biology 2	4 hours
English 4	4 hours
Sociology 3	4 hours
Physical Education (with or without credit)	4 hours
Education 25, Rural School Curriculum and the Community	3 hours
Education 6, County School Methods	3 hours
Observation, Methods, Teaching	5 hours
Demonstration School, Observation, Teaching	5 hours
Nature Study	3 hours
The Teaching of Geography 12	2 hours
The Teaching of Arithmetic 8	2 hours
The Teaching of History 13	2 hours
The Teaching of Reading 9	2 hours
Agriculture	4 hours
Public Hygiene 5	4 hours
Elementary Woodwork	4 hours
Household Science and Art (Elective for men)	4 hours
Electives	33 hours

8. Industrial Arts.

Details of the Course

Library Science 1	1 hour
Education 11	4 hours
Educational Psychology 2	4 hours
Biology 2	4 hours
English 4	4 hours
Sociology 3	4 hours

Physical Education (with or without credit)	
Industrial Arts 8	4 hours
Industrial Arts 5	4 hours
Mechanical Drawing 10	4 hours
Woodworking 1	4 hours
Woodworking 2	4 hours
Architectural Drawing 12	4 hours
Industrial Arts 3	4 hours
Observation, Methods, Teaching	8 hours
Care and Management 14	3 hours
Mechanical Drawing 6	4 hours
Woodturning 19	3 hours
Printing, Music Art, Commercial Art, Household Art, Household Science, Sociology, Biology, Physics, Mathematics. (Five hours to be selected from this group).....	5 hours
Electives	24 hours

9. Commercial Arts. This is really two courses as the course may be planned with the major work in shorthand and typewriting or in accounting.

Details of the Course

Library Science 1	1 hour
Education 11	4 hours
Educational Psychology 2.....	4 hours
Biology 2	4 hours
English 4	4 hours
Sociology 7	3 hours
Physical Education (with or without credit).....	
Shorthand and Typewriting or Accounting, Commercial Law, and Business Arithmetic	24 hours
Business Correspondence	4 hours
Commercial Geography	4 hours
Observation, Methods, Teaching	10 hours
Commercial History	4 hours
History of Commercial Teaching	3 hours
Industrial Arts 5	3 hours
Electives	24 hours

10. Household Science Course.

Details of the Course

Library Science 1	1 hour
Education 11	4 hours
Educational Psychology 2	4 hours
Biology 2	4 hours
Sociology 3	4 hours
English 4	4 hours
Physical Education (with or without credit).....	
Household Science 1	4 hours
Household Science 3	4 hours
Household Science 4	4 hours
Household Science 9	4 hours
Household Science 7	4 hours
Household Arts 3	4 hours
Chemistry 1	8 hours
Observation, Methods, Teaching	8 hours
Bacteriology	4 hours
Household Arts 7	3 hours
Electives	24 hours

11. Household Art Course.

Details of the Course

Library Science 1	1 hour
Education 11	4 hours

Educational Psychology 2	4 hours
Biology 2	4 hours
Sociology 3	4 hours
English 4	4 hours
Physical Education (with or without credit).....	
Household Art 1	4 hours
Household Art 2	4 hours
Household Art 4	4 hours
Household Art 6	4 hours
Household Art 9	4 hours
Household Art 5	4 hours
Household Science 1	3 hours
Household Science 2	4 hours
Art 1	3 hours
Art 2	4 hours
Observation, Methods, Teaching	8 hours
Electives	28 hours

12. Music Course.

Details of the Course

Library Science 1	1 hour
Education 11	4 hours
Educational Psychology 2	4 hours
Biology 2	4 hours
English 4	4 hours
Sociology 3	4 hours
Physical Education (with or without Credit).....	
Music 1, Sight Reading	4 hours
Music 2, Methods	5 hours
Music 8a, 8b, 8c, Harmony	9 hours
Music 7, History, Ancient	2 hours
Music 10, History—Classical Age, Back to Wagner.....	2 hours
Music 17, History—Modern	2 hours
Observation, Methods, Teaching	12 hours
Electives	35 hours

Courses covering four years work, with a major in Music and leading to the degree of Bachelor of Music, are offered by the College Conservatory of Music. All students in the conservatory are required to take two years of voice and piano unless they have previously had the equivalent of the work offered.

Special courses in Public School Supervision, Voice, and Piano are offered by the Conservatory.

13. Physical Education Course.

Details of the Course

Library Science 1	1 hour
Education 11	4 hours
Educational Psychology 2	4 hours
Biology 2	4 hours
English 4	4 hours
Sociology 1	3 hours
Psychology 2	4 hours
Observation, Methods, Teaching	8 hours
Sociology 24	4 hours
English 5	3 hours
Hygiene 5	3 hours
Physical Education 2, Anatomy 1	5 hours
Physical Education 1, Physiology	5 hours
Hygiene 1, Personal Hygiene	3 hours
First Aid	1 hour
Physical Education 17, History of Physical Education.....	2 hours

Physical Education 16, Anthropometry	2 hours
Physical Education 3, Light Gymnastics	1 hour
Physical Education 5, Out-door games	1 hour
Physical Education 4, Advanced Light Gymnastics.....	1 hour
Physical Education 6, Singing Games	2 hours
Physical Education 7, Folk Dancing	2 hours
Physical Education 21	1 hour
Physical Education 22 (Elective for men).....	2 hours
Electives	26 hours

14. Agriculture.

Details of the Course

Physics	4 hours
Library Science 1	1 hour
Education 11	4 hours
Educational Psychology 2	4 hours
Biology 2	4 hours
English 4	4 hours
Sociology 3	4 hours
Physical Education (with or without credit).....	
Observation, Methods, Teaching	10 hours
Chemistry 1	4 hours
Plant Propagation	4 hours
School Gardening and Truck Crops	4 hours
Small Grains	4 hours
Poultry	4 hours
Farm Animals	4 hours
Dairy Breeds and Milk Production	4 hours
Electives	33 hours

Special Subjects are not required of regular grade or room teachers in our College. While I think we recognize the value of special subjects more completely than most institutions, still we are tied down, somewhat, as the rest of the Colleges of the land are. We can not get away from the idea there is a general panacea for all our educational ills. That after all, an educated school teacher is one who has floundered through this educational bog full of much material with which he had been not too intimately acquainted during his eight years of elementary and four years of high school training.

The work in the special curricula can not be adequate till the course is extended, at least four years. We will then have an opportunity for the planning of complete worth while courses along these lines.

The curricula of all kinds should be four years in length with an opportunity for graduate work at least one year more.

We must be super-human beings and our students all geniuses to be able to do in two years what it takes other schools four years to do only very moderately well.

Since the completion of the above section of this Survey the institution authorities have recognized the fallacy of such a course as a general course. In place of having a general course with a limited number of special courses we now have twenty-six special courses in the departments listed below as the central core of each and requiring various types of courses from other departments.

Agriculture
Biology
Chemistry
Commercial Arts
County Schools
Geology, Physiography and
Geography

Intermediate Grades
Industrial Arts
Kindergarten
Latin and Mythology
Literature and English
Mathematics
Modern Foreign Language

Education
 Grammar Grades
 History and Political Science
 Household Art
 Household Science
 Fine and Applied Arts
 Educational Psychology

Music
 Oral English
 Physical Education and
 Playground Supervision
 Physics
 Primary Grades
 Social Sciences

Each of the courses differs somewhat from the other in subjects required by the department but each course contains the following subjects we are pleased to call the Professional Core:

First Year

Biology 2, Educational Biology (Bionomics)..... 3 hours
 Education 8, Educational Values 3 hours
 Sociology 3, Educational Sociology 3 hours

Second Year

Psychology 2a, Educational Psychology 3 hours
 Psychology 2b, Educational Psychology (cont) 3 hours
 Education 10, Elementary School Curriculum..... 3 hours
 Political Science 30, Political Adjustment..... 3 hours

Third Year

Psychology 104, Psychology of the Elementary School Subjects, or
 Psychology 105, Psychology of the High School Subjects..... 4 hours
 Sociology 105, Social Maladjustment 4 hours

Fourth Year

Education 111, Principles of Education 4 hours
 Education 116, The High School Curriculum 4 hours
 Psychology 108, Educational Tests and Measurements..... 3 hours

QUESTIONNAIRE TO FACULTY REGARDING THE CURRICULA OF A TEACHERS COLLEGE

by *S. M. Hadden*

The following questionnaire was sent out to all of the members of the College faculty who were in actual service at the time the questionnaire was sent out.

We received replies from quite a limited number compared to the entire group of the faculty concerned. Below is the questionnaire sent out.

QUESTIONNAIRE TO FACULTY

General Directions.

We assume that all the faculty would agree to the following general criteria for the selection of the material that should go into the curricula for a Teachers College:

1. The first principle to be observed by the framers of curricula for a Teachers College is that the **professional responsibilities of modern teachers should determine the general or core requirements** of all teachers.
2. The second principle to be observed is that the specific responsibilities of the type of position being prepared for should determine all other course requirements.

Therefore, any course in any curriculum should be abandoned if it can be shown that a more useful course could be offered in its place.

We ask you, therefore, to study each of the curricula carefully and read the Year Book's description of each course required in the curricula and give us your critical judgment of each curriculum. For example, study the core requirement (see principle 1 above) on Page 20; the general course (see principles 1 and 2 above) on Page 21; and so through the entire list of curricula—noting especially the list of courses in paragraph 2 on Page 20. We especially wish the full reaction of everybody to the curriculum in whose success he is most concerned, but we shall be grateful for everybody's criticism of all other curricula.

Replies to this questionnaire were received from quite a number of department heads; some passing it over as a thing of no particular value and for that reason to be shelved as soon as possible, but in general there were some who offered some general and particular suggestions that at least reflected the attitude of those who replied to the questionnaire.

In order that the material of this report may be interpreted by any one who takes the time to read this section, I am attaching at this time all of the materials required in the various curricula and the fundamental core subject of the group courses.

GROUP COURSES

Every student entering the College and beginning a two-year course must select one of the following groups in which to do his work: 1. The General Course. 2. The Supervisors Course. 3. Kindergarten. 4. Primary Grades. 5. Intermediate and Grammar Grades. 6. County Schools. 7. Industrial Arts. 8. Fine and Applied Arts. 9. Commercial Arts. 10. Household Science. 11. Household Arts. 12. Music. 13. Physical Education. 14. Agriculture.

Those who have no special preference are to take the general course. Those who expect to take their electives in the departments not listed in these group courses, such as Education, Psychology, Biology, Physics, Chemistry, Geography, Mathematics, Sociology, History, Latin, English, Oral English, and Modern Languages are to enroll in the general course.

After taking the first two years in the general or in one of the special groups the student may go on and work toward a major either in a particular department or in the special group which he has elected. No notation of a major is made on the student's diploma until the completion of the third or fourth year in the College.

COURSES REQUIRED IN EVERY GROUP

Each group contains a core of required subjects, the same for all. These subjects are:

Library Science 1	1 hour
Education 11	4 hours
Educational Psychology 2	4 hours
Biology 2	4 hours
English 4	4 hours
Sociology 3 (or a selected Sociology Course).....	4 hours
Physical Education (with or without credit).....	4 hours

Two-thirds of the number of quarters in residence.

These must be exercise courses, not theory alone.

The total number of quarter hours in this core is twenty-one. In addition to this core each of the group courses has its own requirements.

THE GENERAL COURSE

A two-year course planned for those students who expect to become general grade teachers or who wish to begin specializing in some subject in which they expect to major in the third and fourth years of their College course. Students who expect to become high school teachers of some one of the academic subjects such as Modern Language, History, English, Mathematics, etc., should take their first two years in this group.

DETAILS OF THE COURSE

Library Science 1	1 hour
Education 11	4 hours
Education Psychology 2.....	4 hours
Biology 2	4 hours
English 4	4 hours
Sociology 3	4 hours
Physical Education (with or without credit).....	
Child Hygiene 1.....	2 hours
Education (selected)	2 hours
Observation, Methods and Teaching	12 hours
The Teaching of Geography 12.....	2 hours
The Teaching of Arithmetic 8	2 hours
The Teaching of History 13.....	2 hours
The Teaching of Reading 9.....	2 hours
General Science or Nature Study	3 hours
Electives (as much as 24 hours may be in one department).....	48 hours

THE SENIOR COLLEGE

Practically all the work of the Senior College for each of the courses listed here is elective. Only one prescription is made; namely, students who expect to become high school teachers are required to take a minimum of 10 hours of teaching in the Industrial High School. A student will not be recommended for a high school position until this requirement has been successfully met.

Majors—Every students at the beginning of the third academic year must select a major subject for his work. A notation of a major will be made on the student's diploma for the successful completion of 48

quarter-hours in the subject indicated as the major subject. But a student may take as much as 60 hours in the major subject. At least 48 hours of the major work must be done in the Senior College.

These general regulations apply to all the courses. Some variations, however, are made in certain of the group courses which follow.

THE JUNIOR COLLEGE

The scope of the Junior College is the work of the first two years of the College proper. The student completing this course, having earned credit for ninety-six term hours, is granted a diploma, which is a life certificate authorizing him to teach in the public schools of Colorado.

REQUIREMENTS FOR GRADUATION

A student must do full work in residence during at least three terms before being granted a certificate of graduation from the Junior College. Thus, at least forty-eight of his ninety-six required hours must represent resident work; the remaining forty-eight hours may be granted on advanced standing or on non-resident courses.

SPECIALIZATION

No student may major in the Junior College. However, if he desires to begin specialization, he may take twenty-four hours of work—in some cases more—in one of a number of departments specified elsewhere, supplementing this amount with a nominal core of required subjects covering twenty-one hours, and with electives to complete the ninety-six required hours. If he prefers to delay specialization until his Senior College course, he must then follow the general course, details of which he will find elsewhere in this volume.

From Catalog—Year 1918-19.

General Requirements—The College requires of all students a group of courses which form a foundation for all teacher-training. These are called The Professional Core. In addition to these it requires another group which it regards as essential in the training of young people for the teaching profession. Each course, therefore, is made up of the following subjects, plus the departmental requirements listed separately in the sections of this Year Book devoted to each department.

JUNIOR COLLEGE

First Year

- | | Hours |
|---|-------|
| 1. The professional Core: | |
| Biol. 2.—Educational Biology (Bionomics) | 4 |
| Ed. 8.—Educational Values | 4 |
| Soc. 3.—Educational Sociology | 4 |
| 2. Other Required Subjects: | |
| Eng. 4.—Speaking and Writing (Students may be excused by proving proficiency, | 4 |
| Hyg. 1.—Personal Hygiene (required only of women students) | 1 |
| Phys. Ed.—Physical Exercise (required of all students at least two-thirds of the quarters they aer in residence). | |
| 3. Subjects Required by the Department, and Elective Subjects | 31 |

Second Year

- | | Hours |
|--|-------|
| 1. The Professional Core: | |
| Psych. 2a.—Educational Psychology | 4 |
| Psych. 2b.—Ed. Psychology (continued) | 4 |
| Ed. 10.—The Elementary School Curriculum | 4 |
| Pol. Sc. 30.—Political Adjustment | 4 |
| 2. Other Required Subjects: | |
| Phys. Ed.—Physical Exercise Courses (at least two-thirds of the number of quarters in residence).
The following three courses are required of all students who expect to take the Junior College diploma: | |
| Tr. Sch. 1.—Methods and Observation | 4 |
| Teach. 1.—Practice Teaching in the Elementary School | 4 |
| Teach. 2.—Practice Teaching in the Elementary School | 4 |
| 3. Subjects Required by the Department, and Elective Subjects. 20 or 30 | |

SENIOR COLLEGE

Third Year

	Hours
1. The Professional Core: Psych. 104.—Psychology of the Elementary School Subjects, or Psych. 105.—Psychology of the High School Subjects	4
2. Other Required Subjects: Phys. Ed.—Physical Exercise Courses (at least two-thirds of the number of quarters in residence).	
3. Courses Required by the Department and Elective Courses	40
4. In the Third or Fourth Year. The following courses are required of those who expect to teach in high schools: H. S. 105.—Principles of High School Teaching	4
H. S. 103.—Practice Teaching in the High School	4

Fourth Year

	Hours
1. The Professional Core: Ed. 111.—Principles of Education	4
Ed. 116.—The High School Curriculum	4
Psych. 108.—Educational Tests and Measurements	3
(Ed. 116 may be omitted by students who expect to become High School Teachers.)	
2. Other Required Courses: Phys. Ed.—Physical Exercise Courses (at least two-thirds of the number of quarters in residence).	
3. Courses Required by the Department, and Elective Courses	37

Junior College

Summary:	
The Professional Core	28
Observation and Teaching	12
English and Hygiene	5
Major Subject and Electives	51

Senior College

The Professional Core	19
Observation and Teaching	8
Major Subject and Electives	69

Total192

We will not list the special courses offered in other departments. The *core* is the same in every case, and the required departmental and inter-departmental courses are made up in some way unknown to the committee.

It would be of interest to any one who would care to note the gradual increase of required materials in the professional core, and other required subjects.

There is a marked change in the required courses for all students during this two years. Education II, Educational Psychology, has been discontinued. This was a four hour course.

Education 8, Educational values, a four-hour course, and Education 10, The Elementary School Curriculum, were placed in the Education Department. Psychology 2, Educational Psychology, has been extended to an eight hour course.

Political Science 30, Political Adjustment, was required as a war course, and is also an additional requirement. A four-hour course.

Hygiene 1, Personal Hygiene, was required of all women.

The required core subjects have been increased thirteen hours or thirteen-sixteenths of an entire quarter's work.

The marked change in the curriculum of the two years grew out of the work of a new committee on the course of study appointed during the year nineteen sixteen and seventeen. The committee was comprised of teachers from the departments of Education, Psychology, History and Political Science, English, the Training School, and the Geography Department.

It is interesting to note that scientific and vocational fields have no place on such a committee. It may be entirely an oversight or it may again be the functioning of that formal attitude of many educational administrations toward educationally new lines of thought or doing.

The following replies from members of the faculty throw rather interesting light on the making of curricula in a State Teachers College. Names are eliminated, each being given a number.

1.—“I note that the time limit set for answering this questionnaire was February 7th. My reply is, therefore, somewhat belated.

“Since my work is so largely administrative, I am willing to abide by the judgment of that group of experts in our faculty who are devoting so much time and energy to the organization and correlation of the various courses offered by Teachers College.

“I feel sure that their judgment in matters of this kind is better than mine.”

2.—“It is more than likely that each one of us would favor the elimination of all courses but his own. This questionnaire is of no value as it stands. I should favor the prevention of duplication of courses and not allowing any student to take but one course at a time in those subjects that do not require outside study: Music, Typewriting, Manual Drawing, Domestic Science, etc. I can not say that there are any courses that should be dropped. No one is in the position to say this unless he has taught this course and seen no benefit derived from it.”

3.—“If the Household Science Course as it stands is the foundation for further study in this work eventually ending in an A. B. degree, it is very superficial.

“Or, even granting that its only purpose is to prepare teachers, in a minimum length of time, to teach Domestic Science, it is too narrow.

“I would suggest the following changes—

- a. More Chemistry required.
- b. A thorough course in Physiology.
- c. A course in Psychology more closely related to the teaching of this particular subject.
- d. More emphasis upon Methods in teaching than it is possible to give as the work is arranged now.”

4.—“I believe that there should be more coordination between Biology, Sociology, History and Geography. I believe courses should be given in these departments to the end of reinforcing work in other departments of this group. I find with the elective system in full survey that it is often impossible to give the pupil just what he ought to have. Let me illustrate. All our students who teach general grade work ought to have an elementary geologic background. Yet several times when geology has been offered too few pupils have appeared to justify giving the course.”

5.—“As to the core subjects required in all courses, I think the arrangement is admirable, with one exception. It seems to me that English 4, Functional English, should be required for more than one quarter, or some similar work in English should be provided during another quarter, coming five hours, instead of four hours, a week.

“The general course, on page 20 of the catalogue, has two different ends in view; first, to prepare general grade teachers; second, to train high school teachers or give specialized training in some definite line of work. The course is well suited to the first purpose, but not adequate for the second.

“I should advise an additional four year course for those preparing to specialize, or intending to go into high school work. This course

would offer instruction in the psychology of adolescence, the psychology of high school subjects, high school administration, secondary school problems, etc.

"If this plan were for any reason, not feasible, I should suggest a division in the general course—(A). As it is in the catalogue, for grade teachers; (B) for those intending to take a four years course preparatory to specializing or high school teaching. This section of the general course might require the first three subjects on page 21 of the catalogue (Child Hygiene 1, Education, selected—much more than two hours—Observation, Methods and Teaching), also general Science or Nature Study, but not the Teaching of Geology, Arithmetic, History and Reading, as these would seem unnecessary for those intending to specialize in the third and fourth years. Instead of taking these four subjects students might spend more time on general subjects (electives) or on their specialty during the first two years, and later have practice teaching and special methods on the teaching of their chosen subjects."

6.—"a. There should be a course in Nature Study required for the Kindergarten specials. The only courses given now would amount to 8 hours. There should be a more general course for three or four hours. I liked the course suggested by the committee last Spring.

"b. Physical Education 7, Folk Dancing, should not be required for credits in this course.

"c. The weakest spot in the Kindergarten course is the lack of teaching in the Primary. This recent change makes our Kindergarten training fall behind the courses given in other places."

7.—"a. Training School 37, 'The Relation of the Kindergarten and Primary Grades,' should be required of the specials in primary work rather than Tr. School 33, 'Plays and Games for Kindergarten and Primary,' because the first course will give them a clearer idea of all of the work of the kindergarten and its relation to primary grade work.

"b. There should be the same general course in Nature Study for this course.

"c. There should be only one course in Story-telling required, the second should be elective."

8.—"a. Core requirements—Satisfactory.

"b. Requirements, other than the core, for the general course.

"With twelve hours given to Observation, Methods, and Teaching, an additional Education course of two hours work is needed in the Teaching of Geography, and each of the other similar courses.

"If these last mentioned courses are really methods courses and do not overlap other methods courses they are acceptable but there is a grave danger that they will either do that or else lapse into mere reviews of subject matter. The latter case would be as objectionable as the first.

"Students report a serious overlapping of material in certain courses.

"In the general course no account is taken of Primary Construction, Music, Art, Oral English.

"The course for primary teachers requires Music and Art, and for the intermediate and grammar division the same condition prevails.

"These courses were planned by experts in each field. The special subjects just mentioned are regarded of such importance that they are not left for electives.

"Here is a strange variance with the general curriculum. If one teacher is trained for general grade work, and two others respectively for primary and upper grade work, is that just reason for reversing the importance of subjects, in the first case? It is argued that the general teacher will be in rural schools. Then they will have no supervisors of Music or Art to guide them as has the city teachers.

"In the Country Schools course, Music and Art are not even so much as recommended for electives."

9.—"In reply to your last request after the study of the curricula, I would submit the following report.

"The general core of required subjects which are the same in each course seem to me very satisfactory. I think they are well chosen. In regard to the general course I still can not see why all the rest of the faculty should be penalized because they did not happen to be chosen as members of the course of study committee. I see no more reason for demanding that the general course should include for instance the teaching of reading than many others. Every student has had reading in some form no matter what kind of school he or she may have been in. To me it is the same with History, Arithmetic, and Geography. If they have not imbibed enough of the spirit of the subject in that time, I can not see how it will be possible for them to gain it in twenty-four hours, which is the limit required. On the other hand, however, many of our students that are graduated and accept positions have not had the slightest knowledge in method of presenting or studying public school music. In every community or school of any standing whatsoever at the present time, it is demanded that the teachers be able to teach music. The demand is coming in constantly and is found in every teacher's agency application blank. Every rural school is asking for teachers competent to teach the music in that school district.

"It seems to me, gentlemen, it is unfair to discriminate against a subject for which there is such universal demand and including the other subjects that are included. I do not see why the teaching of writing is not as important as geography; why the teaching of spelling is not as important as history, and for these reasons I protest against the general course which seems to me was decidedly biased, and while it may seem an unjust thing to say, I can not help but feel that the only courses offered by members of the committee are for their particular friends; that there is a little element of selfishness that has crept into the deliberations of the general course of study. This is no new thought for me, as you know I expressed myself clearly and concisely at the faculty meeting last year, but I wish to let you know that I have not changed my mind since that meeting.

"In regard to the other courses prepared by special departments I do not feel that it is my prerogative to dictate courses prepared by the head of the departments. In my own course I would add a consultation course for all majors to be held every term and required for all those looking towards a major in music. I would add to the wording of the catalog where it says that all students in the conservatory are required to take two years of voice and piano unless they previously have had an equivalent to the work offered, the statement, that all students in the public school course should have the same requirement.

"In the primary major I can not quite see why music is eliminated when Art 1 and Blackboard Drawing are included. I shall be glad to be enlightened as to why this policy is adopted, as every primary teacher is certainly demanded to be able to teach music as much if not more than art.

"From what I gather from the reports of students, the Educational Psychology, for which so many departments asked, is being offered, is the same course identically as the one so many of us found fault with the last year, i. e., the study of the eye and ear and defective children. The thing I would like my students to have is general basis and underlying principles of psychology and not a clinical course, which seems to be the only course offered in reality by the department.

"If I have been too plain spoken, it is because I have written what I think. I feel that the questionnaire is of no value if things are handled too much with kid gloves. So I have called a spade a spade, with malice toward none. My report will have this virtue at least, that it is very frank and expresses my honest opinion.

"If I can give any further information please call upon me, as I am at your service."

10.—"The two principles mentioned in the questionnaire may be excellent, but without other principles they are very inadequate. I feel very confident that at least two others should be added. They are the following:

"(a) The core requirement must be sufficient in amount to be of practical value to the students. Our school has given some attention to this matter but has assumed that a single course in a professional subject was sufficient to give the student enough knowledge of it to enable him to use it in his school work. With all the background of high school work and home life 43 hours are deemed necessary to give the student a working knowledge of Household Science. If this be true how shall a student with no background in training or experience for psychology be able to master enough of it to be of any teaching value in a single term?

"(b) The school must limit the number registering for a specific course to the number who are likely to secure positions for which the course is a preparation. The bureau of recommendations should be able to tell us how many students who have specialized in Household Science, for example, succeeded in securing positions in this field. Let the bureau furnish us with this information in order that we may see to what extent we are preparing the students for the positions which they fill.

Core Requirements

"Child Hygiene.—Until the present year this course belonged to the core requirements. From this core it was excluded against the advice of the course of study committee and without consultation with the department offering the course. It should belong to this core for the following reasons:

"(a) The children in our schools from the kindergarten up to and through the high school are in the greatest need of health improvement and preservation. To deny this is to confess ignorance of the health conditions of our school children. That the majority of our school children require hygienic care is shown by the results of the medical inspection and the examination of recruits for the war. I stand prepared to show this need to any doubting Thomases by making examinations in their presence of the children of the Training School.

"(b) The maintenance and improvement of the child's health is a recognized school aim because health is one of the most important assets in filling successfully a position in life and in making normal school progress. The retarding effects which ill health and defects have upon the child's mental development and school progress have long ago been recognized by our best educators.

"(c) The task of giving the child the necessary hygienic care falls in our state almost altogether upon the teacher, who does not approximate adequate preparation for it.

"(d) A very large percentage of the students in our school realize the value of a course in child hygiene and are themselves in need of it.

"(e) The laws of our state require certain physical examinations of the children, which the teachers are not prepared to make.

"In order to obtain the best results in all kinds of instruction it is necessary for the teacher to understand the significance of ill health and defects of various kinds; to know how to prevent ill health and defects; and to know how to proceed to secure amelioration or cure. When a child does not succeed in his school work, the teacher's method is to give him more and still more practice, when what she should be able to do is to find the cause and secure its removal if possible. The child who can get along in our schools without a teacher succeeds and the one who needs a teacher fails because the teacher has not been adequately trained to deal with him.

"Educational Psychology.—This course should be a core requirement because it treats of problems which are involved in all kinds of instruction.

"(a) It discusses the child's native equipment. To operate successfully instruction must always take this equipment into consideration, for all learning is only a modification of this equipment in the last analysis. Because teachers know very little about this equipment there is enormous waste in education. Without knowing the child's capacities, tendencies, and instincts and the extent to which these have already been modified by practice we make it impossible for the teacher to utilize the first principle of learning; i. e., to proceed from the known to the unknown.

"(b) It treats of the laws of learning for all kinds of responses such as feeling, action, knowledge and attitude.

"(c) It emphasizes the necessity of recognizing individual differences in all kinds of capacities, tendencies and responses.

"(d) It discusses the problem of mental fatigue and what recognition must be given to mental fatigue in learning, health and the arrangement of the daily program.

"General Psychology.—The purpose of this course is to analyze, describe and explain mental processes and concepts. Because it is the business of education to *improve* the mental processes for school-room tasks, the course in general psychology can have only indirect value for the prospective teacher by preparing him for the courses in Educational Psychology. General psychology should therefore be taught in connection with Educational Psychology in which a very small part of it is involved. This would compel the teacher to select the parts of general psychology which are significant for the teacher. It would also enable the student to see the necessity of understanding certain parts of general psychology. The best plan would be to have two required courses in Educational Psychology so as to make it possible to cover the field of Educational Psychology and to teach in connection with them the necessary parts of general psychology. Because general psychology does not teach the prospective teacher how to improve the efficiency of the child's mental processes for doing school room tasks it should not be a core requirement.

"English 4.—It is the function of this course 'to guide the student in the correct use of English in speaking and writing.' I am unable to see why this should be a core requirement. The children have been guided in the correct use of English in speaking and writing from the cradle up to and through the high school, before entering our school. If all of this instruction and guidance has been without avail, one term more in our school can have little additional value. To assume that it can, shows ignorance of the nature of the chain of automatic acts involved in oral and written expression. I am, moreover, of the opinion that the English of most or practically all of our students is not so bad as to be inadequate for ordinary schoolroom work. The students, I am

convinced, show far greater deficiencies in other subjects equally vital to their work in the schoolroom.

"Biology 2.—I believe the function of this course is to help interpret the problems of Psychology and Sociology. Until provision is made for more required courses in Psychology and Sociology, I believe that this requirement should be limited to two hours. I am unable to see that the biological aspects of even eugenics and heredity have anything but indirect value for education.

Other Required Courses in Psychology

"Psychology 4 (Psychology of the Elementary School Subjects). This course is required of those who specialize in the intermediate and grammar grades. This is not the best place for this course. While it has some value for the teachers of all of the elementary grades, it is of greatest value to the primary grade teachers and the intermediate grade teachers, for it made its greatest contribution to the methods involved in lower grade work. In placing this required course, the advice of the course of study committee was not followed nor was the department offering the course consulted.

"Psychology 3 (Child Development).—This course is not a required course for any of the students in spite of the fact that it is of the greatest practical value to all elementary school teachers and especially to the teachers of the primary grades. It points out what treatment the child requires and what subject matter is adapted to him in the various states of his development.

"For the good of our school I hope that I am very much in error in the views which I have expressed in this questionnaire reply. I should very much enjoy to be shown the falsity of my views."

11.—"In compliance with your last questionnaire I submit the following, with no ill-feeling toward any one or any course now being offered. What I may offer will be submitted from two angles. Having taken work as a student in the institution, and having taught for nearly four years, these two angles combined will be the points from which I draw my conclusions; and let me further state that what I may attempt to say will be as I find my own department and my own work affected.

"First taking up the courses required in every group, would say that I consider two courses in that group of little, if any, use to one fitting himself as a Manual Training teacher. These courses are Educational Psychology 2 and Biology 2.

"From the standpoint of the student who is fitting himself as a Manual Training teacher he can sit in these classes from the beginning to the end of a term and never have it pointed out to him how to apply either of these courses in his chosen line. He is continually cited to problems purely academic and never as much as cited to the method of even harnessing the horse prior to hitching it to his own chosen cart. I have endeavored to watch students who have been working in my department to see if they show any evidence of having gained anything by taking these courses, and so far I have failed to find any who even show any symptoms of having been exposed.

"From the standpoint of a Manual Training teacher I find that the things that the average Manual Training teacher needs to know are what might be termed two phase: i. e., he not only needs to know **how** they should be done but needs to know **how** to do them. This, in my opinion, requires more time than is ordinarily considered necessary, and for this reason I feel justified in saying that this type of teacher can become a more efficient teacher by putting the time spent in these subjects on work more directly connected with the work he intends to do. As far as general information gained in these classes is concerned,

I have nothing to say; but as to what will bring the best results, I feel that more time spent along the line the student intends to pursue would be to his advantage. So long as these courses are taught and never made applicable to all lines of teaching, they will continue to be of little, if any, benefit to the average student.

"In substituting courses for the ones mentioned, I would advise a course in the study of the history and method of preparation or manufacture of all equipment and materials used in the Manual Training department. This I consider a broad enough subject to give the student a polishing touch that will ever be of service to him. Another course I could suggest would be a clean common sense course in plain mathematics; whether or not this is the proper place to bring up the subject I am about to break loose on, I am unable to say, but I beg your indulgence and consideration at any length.

"I feel confident that you will agree with me that a student entering this or any other educational institution to prepare for any special line of teaching should lend every effort to make himself as proficient in that line as possible, and that nothing should be permitted to stand in the way of his accomplishing these ends.

"We are right now experiencing a spurt in athletic activity. It is this subject that I wish to present and I shall endeavor to show you its effect on some who at the present time are working toward a major in Manual Training.

"On careful investigation I find that the student who is either classed as a football or basketball man takes the attitude that the whole College is under obligation to him, by virtue of the fact that timber of this special class is somewhat at a premium, and that by reason of this scarcity he stands at liberty to shirk to his heart's desire.

"I find it to be a fact that after some of the recent games students have deliberately stayed out of class, claiming that they were disqualified to do their other work. Several instances have been found where students missed from one to two classes prior to a game, and as many or more after a game.

"When athletics, or any other line, becomes a hindrance to the student's preparation for the branch he intends to teach, I feel I am not creeping outside the bounds of reason in calling your attention to what I consider a vital problem facing our College at the present time.

"No up-to-date teacher to-day stands more in need of a thorough knowledge of plain every-day mathematics than does the Manual Training teacher. The average student entering the College to prepare himself as a Manual Training teacher considers that he possesses sufficient knowledge of mathematics to carry him through. The fact is, he has had too much theoretical but not enough application. It is no uncommon thing to find students in our Senior College who cannot tell how to find one-half of three-fourths. I have found that it is possible to accomplish more with a thorough knowledge of common arithmetic than with a smattering of all branches of higher mathematics smeared over in a promiscuous manner."

12.—"I am submitting below a few statements in regard to questionnaire number 3.

"It seems to me that there is a duplication of effort on some of the so called methods courses. This statement is true of such subjects as we usually term fundamentals, but for the courses that are highly specialized a Methods Course is necessary, and should be given by one who is a specialist in that particular line.

"From the students has come the complaint that some of the methods courses are not as much a study of the methods of presenting the sub-

ject as it is a 're-hashing' of the content of the subject. If this condition exists to any marked degree, there should be a new terminology for these courses.

"There is a question in my mind in regard to Education 11. It does not seem to be the best course in Education for all the people—I am not saying that we should not have courses in Education—but that there are other courses in Education which would be worth more to our student body as a whole.

"It seems to me that there is a more satisfactory way of teaching our students how to use the Library. Some institutions such as ours have a syllabus printed giving directions, instructions, etc. in regard to the use of the Library and it seems to work splendidly.

"If the core requirements could be arranged and certain hours, one in the forenoon and one in the afternoon, be set aside for the entire school year for these required courses the students would know what hours to look for these courses and also the teachers would know at what hours to schedule major courses in their particular field, so as to avoid conflict. This plan would also guarantee the plan of having the students take only two requireds."

13.—"In the discussion of a subject such as this there is a tendency for one to judge the various curricula in a prejudiced way and see them only in the light of the department in which he is most interested. If this criticism be so warped I suspect it will be only one of the many, thus biased.

"In considering courses of study or curricula in any critical way, one must take into consideration the fact that progress in this line in teachers colleges is very recent, and that even though after a year's trial of our present curricula, many criticisms might be registered, these should be tempered with the thought that after all, perhaps great progress over the old scheme has been made.

"In the consideration of such a subject as the curriculum, the purpose of the institution should be considered. Our main purpose, and certainly the only purpose we have for existing, is that of training teachers. These teachers must be taught:

- a. A knowledge of child life, physical, mental, moral.
- b. A realization of aims and values in education.
- c. An idea of existing conditions in the public schools today.
 - 1—This, of course, would include, health, lighting, curricula, backward children, etc. etc.
- d. A progressive attitude toward the work of educating children with regard to:
 - 1—The social needs, present and future.
 - 2—The curriculum, sanitation, school hygiene, school discipline, etc.

"Certainly, then, courses in Psychology and Education should have an important place in any curriculum for the training of teachers.

"The administrators of an institution should be very certain that the required subjects are valuable as a preparation for the work the teacher expects to do before such subjects are required. Furthermore, they should see that a knowledge of educational aims, educational values, the curriculum as it exists today and the needed changes in order to meet the social needs of life, the best methods of maintaining the health of the child, together with a definite realization of his responsibilities and opportunities as a teacher be given every graduate of the institution.

"It seems to me that not all of the 'core' subjects are valuable enough to require that all students of the institution take them. In consideration of the 'core' I make the following suggestions:

"**Library Science** should not be required, but elective. The subject is taught too technically for our students. They do not care to go out and catalogue a library; they want something that will be beneficial to them while in school. So I should not object to requiring the subject, if it consisted of practical problems which would be worked out in the library and not in some class-room and further if this subject be required the first term the individual is enrolled in the college.

"**Education II** should be required of all college students, I believe. It seems to me that the course is really practical and very much worth while, but is somewhat more advanced than the average Junior College student is capable of comprehending unless he has had experience teaching or has had another course in education. Consequently, either this course, Principles of Education, should not remain the required for the Junior College, or there should be required previously either experience in teaching or some other course in Education. I would like to suggest here that institutions which train teachers, above all others, should require courses in Education. And yet, this institution requires fewer courses in Education than any institution or State Department with which I am familiar requires of teachers. In fact graduates of Denver University and of Colorado College are required by state regulation to complete at least 20 semester hours in certain specific pedagogical subjects, if teachers certificates are granted. For the life of me, I can't see why more professional work is not required in this institution, except that a majority of the faculty do not think such should be the case. I cannot see why the members of the faculty are opposed, except that they are not at all informed in regard to the courses offered.

"**English 4.** I question the advisability of requiring this course in English. The use of good English cannot be taught in one term. Consequently some students should be required to take a course in English every term they are enrolled in the institution, perhaps, whereas others should undoubtedly be excused from any English, and English 4 then should not be a core subject.

"**Phys. Ed.** I consider it next to a calamity that the requirement was made that students should take the subject for credit, particularly, in the middle of a school year. I would not object in the least to have some form of physical education required at least twice a week, every term the student is in attendance. I do not think credit should be required, however. I'm almost inclined to say that it should not be allowed credit as one of the sixteen hours, except in the case of a physical education major.

"In the committee I was somewhat opposed to Biology 2 as one of the required and I am still inclined to be opposed. In some of the courses, nature study or bird study should be required, but I do not believe that Biology should be required of all teachers. I know I haven't quite good enough idea of the contents and yet I know enough to conclude that although it is interesting and helpful, it should not be required of all.

"I have no objections to Sociology 3 as one of the 'core,' although it does seem that there might better be another Sociology substituted in some courses.

"Let me suggest further, that one can get little conception of Psychology or Education in one term. Consequently in these professional subjects more than merely a four-hour course should be required. This applies as well to such subjects as Math. 8, Reading 9, Geog. 12, Hist. 13.

No student can get what he should from a two-hour course, for instance, in the teaching of History.

"One might discuss the individual courses at almost any length, but I shall give merely a few of the many suggestions which might be made. In all of the courses it might be preferable to indicate what subjects are to be taken the various years, rather than to allow indiscriminate selection. There should be some order which would be best it seems to me. For instance Biol. 2, Soc. 3, Psych. 2, Ed. 11, should, according to my opinion, be given in the order they appear above. Then History 13, and Geography 12, should be given the same quarter at different hours so that a student could take both courses the same quarter. In fact I would advise that the student who takes both, take them the same quarter.

"General Course. I would prefer, if, the courses in the teaching of the various subjects be required as now, that the courses be extended to at least four hours, and that the student be allowed to select, say three of the several subjects so presented. For instance, I think that the Teaching of English, The Teaching of Manual Training, The Teaching of Music, etc, should be placed on the same basis as Reading 9, Math. 8, Geo. 12, and Hist. 13, and that no student taking the general course be required to take all of these.

"If the student be required to take an Education in the general course, and has had no experience it certainly should be required before Ed. 11, as I have suggested before, if Ed. 11, remains the required course in Education, there should be another course required of all who have not had previous experience in teaching.

"If I had my way, I would require in the General Course two courses in Education, two courses in Psychology, Sociology 3, Physical Education (without credit), English (either until the individual showed improvement or none), General Science or Nature Study, and three courses from the 'Teaching' subjects named above.

"Kindergarten Course. I would not allow credit for physical education. Certainly there is no justification for Biology 2 in this course.

"Primary Course. Some suggestions hold for this that were given above in regard to the Kindergarten course. In fact I see no real reason why, since most of our Kindergarten majors have to accept primary positions, there should not be a joint Kindergarten-primary course. Surely no reason why Music should not be required here.

"Intermediate and Grammar Grades. Why not require story telling here as well as in the Primary grades? Yes, I know teachers usually have to tell stories to the primary children, but why shouldn't the same requirements be made of the other grade teachers? It seems to me it will take more training to tell stories to upper grade children and 'get away' with it than in the primary grades.

"County Schools Course. Agriculture may as well be omitted unless a different type than that usually taught is given. It is impossible to make a farmer out of a girl who has never seen a farm, in one quarter, four days a week. Better eliminate Public Hygiene, Household Science and Art, and Biology 2, and give more Agriculture if any is required.

"Industrial Arts Course. I see little reason why the student should be required to select the five hours from the group—Printing, Music, Art, Commercial Art, Household Science, Sociology, Biology, Physics, and Mathematics. I see some reason why a student in this department should have some Mathematics and perhaps Physics, or even Printing or Sociology, but why these other subjects more than still a dozen others such as

Psychology and Education? There surely is no reason for such a condition existing.

"Music Course. The criticism registered against the Industrial Arts Course is appropriate here. Why four hours from Modern Languages, Mythology or Industrial Arts any more than from Sociology, Psychology or Education?

"Fine and Applied Arts. Again in the Art course, why place among the requirements for the individual a selection from Industrial Arts, Commercial Arts or Printing? Are these closely related to Art? Would a course in Educational values or in the Psychology of School Subjects be of as much worth to the prospective teacher of art?

"Physical Education. There are a number of the courses in this curriculum which have become practically obsolete. Since a doctor of medicine is not physical director, consequently these same courses should be stricken from the course and the catalogue.

Summary of Recommendations

"1. Eliminate Library Science 1, Biol. 2, English 4, and Physical Education from the 'core' list.

(a) If English is required at all, any amount up to two years of it should be required.

"2. If Education 11 is retained as the Junior College requirement, either another course in Education or previous experience in teaching should be required.

"3. It seems to me that more than the one course in Psychology should be required.

"4. Surely more professional work than is at present required should be demanded, when to be granted a teaching certificate, the student at the denominational colleges is required to have 20 semester hours or 40 credit-hours of professional work.

"5. In the general course, the teaching of English, of Music, of Art, etc., should be given the same standing as Math. 8, Hist. 13.

"6. Courses in these teaching subjects should be lengthened and fewer of the courses required.

"7. In each curriculum, the order of the subjects should be indicated; there should be a sequence.

"8. If, in the general course, the Education aside from Ed 11 be required, the student should be required to take it before Ed. 11, if she has had no previous experience in teaching.

"9. The Kindergarten and Primary courses should be placed together as to requirements, since so many of our Kindergarten majors are required to accept primary positions.

"(a) Surely Music should be a requirement in this course.

"10. Story telling as a requirement should not stop with the primary grades.

"11. Better eliminate many two-, or three-, or even four-hour courses in the County School course and have more continuous work in one field.

"12. Many 'hit and miss' requirements are given. I mean that there are presented lists of some six or a dozen subjects from which the student is expected to select a four-hour course. Perhaps many of these have no value as a preparation for the work in which they are required. Perhaps, too, there are a dozen other courses in the institution which would be of as much value as those from which the selection is to be made.

"13. The various courses surely should be worked out on the basis of four years for a major. It seems to me that our present courses allow too much specialization still. In the subjects it seems necessary to require of all teachers, more work should be required in each. *Furthermore, for the two-year course the student should be limited in the number of units taken in one field.* I know the catalogue says, 'No student may major in the Junior College', but is there any restriction on the student other than the required? Why not require the student to take one-fourth of the elective studies in professional work?

"14. The administration of the various courses should be given into the hands of a committee, preferably the Committee on Course of Study. This committee had much to do in formulation of the different curricula, but has nothing whatever to say in their administration. For instance, if students had 'kicks' to register, this committee should listen and be willing to excuse any student from any course for which he could give sufficient reason for being excused. *Students need a great deal of advice in selecting a curriculum. Furthermore, many students get a great deal of advice, but is it intelligent advice?*

"As a member of the Committee on Course of Study last year I was in accord with the recommendation that there should not be any subjects required in every course. I think that there are special subjects in courses that are more essential than those mentioned in the list of general requirements. As a member of the committee that is still active, I do not care to discuss details of courses outlined.

"I believe that the students should be brought more in contact with courses that deal directly with citizenship, the one ideal above others that is advocated in education at present. The State Superintendent wrote me last year that the teaching of civics in the schools of Colorado was poorer in quality than that of any other subject. County Superintendents largely state the same fact.

"I am convinced that this is one phase of education that is to be reorganized as a result of the war experience.

"If the professional responsibilities of modern teachers should determine the 'core' requirements for their training, then, of the core requirements set on page 20 of the catalog, Education 11, Education Psychology 2, and Sociology 3, alone have any justification.

"Library Science 1 is offered with the expressed purpose of 'teaching the student to use the library efficiently in his college career.' It should be clear that this course has nothing to do with one's professional responsibilities and should not be a required course. There are other reasons for *not* requiring this subject. One is that all of the students do not need it. Some have gone through the college high school and have been using the library for three years. Others have come from schools where they have had library experience. The greatest stimulus to learning is a *felt need* the student should, without doubt, learn to use the library as the need arises.

"I do not see that Biology 2 has anything to do toward enabling a teacher to meet his professional responsibilities except as it may be a basis for subjects more definitely planned to meet the teacher's professional needs. In such event it would seem better pedagogy to incorporate the fundamental ideas with applied subjects.

"English 4 is no more entitled to a place in the core subjects than a hundred other subjects that make no claim to a place. It seems to have been placed here to meet deficiencies of instruction in the elementary and high schools rather than to give power to meet professional obligations.

"Physical training clearly has no place in the core on the grounds of enabling one to meet his professional responsibilities. The depart-

ment has no course organized that it can point to and say, "This ought to be required of every student." Certainly physical training should *not* be required of all students without a very competent woman physician employed to safeguard the health of the women students. The requirements now made by this department should be severely criticised.

"If there should be a core of required subjects for all, it should be made up of those subjects not required for College entrance, fundamental to the pursuit of professional studies. If the College entrance requirements are not stiff enough along the line of the common branches, English included, to enable students to pursue professional studies along these lines, then it is the duty of the College either to tighten up on entrance requirements or to offer an opportunity for students to review the common branches. It is worse than a waste of time to give professional courses in the elementary subjects without this thorough fundamental knowledge.

"If Biology 2 is to be regarded as fundamental to the understanding of Psychology and Sociology, then it ought to be given to students in their first term, and no other required subjects should be allowed before the second term. If Educational Psychology 2 is fundamental to the understanding of methods in the elementary school subjects, then it should be given to the students before the methods courses are allowed. For instance, a student who applies for Methods in Arithmetic should be required to show that he had already had sufficient drill in the subject matter of Arithmetic to understand it thoroughly; that he has had the preliminary instruction necessary in Biology, Psychology, and Sociology. Any other procedure is a confession that the aforesaid subjects are not fundamental. I should have included Education 11 as a prerequisite for the method studies.

"I feel that in addition to the courses I have named as suitable to be required of all students there should be another course not now given by the College, but of the utmost importance to the public school pupils in order that their welfare may be safeguarded. I would call it a course in *hygiene*, and it would include the treatment of such topics as the following: personal hygiene; the laws of health; care of the eyes, teeth, ears, throat, skin; heating, ventilating, and lighting school rooms; sanitary conditions about the school house; corrective measures for physical defects; first aid work; contagious diseases; importance of observing and enforcing quarantine regulations; fire drills; and others.

"My criticisms on the general course as found on page 21 of the catalogue are for the first part similar to the criticisms of the 'core'. What I have said applies with full force to the general course. Even if it were proper to require these things of any group of students nothing is said concerning what subjects should be prerequisite to others. If any subject is fundamental to any other it should precede it.

"This general course is planned for those who want to become general grade teachers and also for those as well who want to become high school teachers of some one of the academic subjects! ! ! Suppose for example that one wishes to prepare to be a high school teacher of modern languages. What particular value will any of these required subjects have for him; that is, outside of the core subjects I have admitted above? The question is just as pertinent for any other high school subject. This College certainly stands for the functional and genetic view of education and against the disciplinary view. Yet here is a striking example of the *dualism between theory and practice*.

"I do not believe that the method courses of two hours are adequate to meet the needs of the students who want to become general grade teachers. I think also that there should be added to the list the re-

maining common branches that are generally taught in the public schools; oral and written composition, writing, music, art, hygiene. If you are going to train a person for a job give him the things that he will need to carry on his work. In addition to these character building, training for citizenship, manners and morals, pupil self-government, and community cooperation work. Schools under the guidance of teachers trained as I have suggested would have a wonderful influence in uplifting the community in which they are conducted. Teachers trained as suggested on page 21 of the catalogue would do unusual work in spite of their training rather than because of it.

"I do not care to take the time to criticize other courses except the Commercial. This course is grossly inadequate to meet the needs that it is organized to meet. In the first place the commercial teaching which we are supposed to be training for is to be done in high schools. Most good high schools require all their teachers to hold a degree equivalent to four years of college work on a foundation of four years of high school work. It seems to me to be imperative that we provide four years of training in Commercial work in this department. It is not sufficient, not desirable that our Commercial students shall take the general course for two years and then take what Commercial work we offer for the next two years. Twelve hours of bookkeeping are all that are required by this course. Many good high schools require more than this of their students. Should not *our* students be prepared beyond the ground over which they expect to take *their* students?"

14.—"To the Survey Committee:

"The Biology Department recommends the following changes to the course of study.

"1. That Zoology 109 (Parasitology) or Zoology 3 (Vertebrate Zoology) and Botany 2 (General Botany) and Botany 3 (Systematic Botany) be required subjects in the Agricultural Course.

"2. That Nature Study be required in the Kindergarten and Primary Grade courses.

"We consider the core requirements particularly well balanced."

15.—"The task of making a course of study to meet specific needs is one too recently faced to be immediately successful. The major difficulties faced by course-makers (as over against course-adopters) are those involved in working out painstakingly the implications of such general principles as can be agreed upon by a more or less heterogeneous group of teachers in the face of incomplete information in regard to many aspects of the whole situation that is to be met, and under the plain necessity of, while being progressive, keeping effective touch with existing aims and practices.

"That this is a piece of arduous labor is suggested in the only tentative set of curricula for normal schools which a group of expert educators and administrators in the Carnegie Foundation produced after a couple of years, working at nothing else and availing themselves at every stage of their work of the painstaking criticisms of schoolmen in the field. The most that can be reasonably expected is that the initial results should be *progressive in tendency*. The criticisms that follow are made in no other spirit than this.

"Before entering on a criticism of the work produced by our Committee on Course of Study, it seems worth while once more to halt upon the sources of the general principles which course-makers may invoke for guidance in their work, in order to make sure that these principles are duly and soundly based.

"The general principles that are to guide course-makers in a Teachers College must be found in (1) The Aims of Education, (2) the definition

of the function of Teachers Colleges in the field of Education, and (3) the limiting factors of the historical situation in which they operate. Each of these has some clear implications for the guidance of the course-makers in selecting content. For the sake of exhibiting guiding principles so deduced a fresh definition of Education is more useful than a familiar one. This may serve:

"1. EDUCATION IS TO CAPITALIZE INDIVIDUAL CAPACITY FOR SOCIAL PURPOSES.

"Likewise a fresh description of the function of Teachers College may be more suggestive than the usual one. This may serve.

"2. THE FUNCTION OF A TEACHERS COLLEGE IS TO PUT TEACHERS IN THE WAY OF CAPITALIZING INDIVIDUAL CAPACITY FOR SOCIAL PURPOSES. MORE SPECIFICALLY, A TEACHERS COLLEGE IS TO ENABLE TEACHERS BOTH TO DISCHARGE ACCEPTABLY THEIR USUAL DUTIES IN THE PUBLIC SCHOOLS AND AT THE SAME TIME TO CO-OPERATE INTELLIGENTLY WITH THE SPIRIT AND IN THE TECHNIQUE OF MODERN EDUCATION.

"3. The limiting factors of the historical situation must be sufficiently suggested in such general terms as CUSTOM, TRADITION, ADJUSTMENTS THAT HAVE OUTWORN OCCASION, GROUP-EXPECTANCY and the like—all of which the course-maker is bound to regard as potent operative factors in his problem. A course for teachers which was so 'modern' as to ignore these forces would also be so detached from conditions in the field as to be ignored by practical school men. The way of progress is evolution rather than revolution. It is by progressive, forward-facing adjustment to existing conditions,—aims, material, organization, practices.

"Now, the aim of education as above stated points out the two basic fields of responsibility which belong to the teacher,—the sources of the characteristic problems of *education* (of the *characteristic* problems of medicine, law, agriculture, et seq.). They are,

"1. To make due recognition of individual differences of capacity for social service.

"2. To make due recognition of the kinds of social service most needed from the next generation.

"These are the two indispensable clues to the *selection and adaptation of subject-matter in the public schools, the distribution of emphases within selected subject-matter, the organization of the school* for efficiency in its various activities, et seq. Since it exists for the sake of the public schools, a Teachers college is subjected to the full force of these general obligations of Education. It is to realize them in public educational practice. But since it enters a going concern, as a fresh department, it has to utilize the established structures, aims, practices, et seq. as its starting point.

"The statements of (1) the function of Teachers Colleges, and (2) of the limiting factors of the historical situation together contain the indispensable clues which lead to the necessary activities of *instruction* in Teachers Colleges. Teachers Colleges are

"(1) To insure to the public schools teachers who can acceptably carry on the established activities of the public schools; and

"(2) To insure to society teachers who will be able to provide a citizenry competent to meet its impending problems efficiently.

"It is obvious in (1) that a Teachers College must deal with the public school subjects of study. What the nature of its courses relating to these should be can only be determined by noting the deficits of public school work in these subjects with reference to (1) their recognition of differ-

ences of age and capacity, and (2) their adjustment to existing social needs. It is obvious in (2) that a Teachers College must deal with the subjects that are concerned with social conditions as they now exist. What these courses should be can only be determined by consideration of what social needs are most pressing, what opportunities exist in public schools for making knowledge of these conditions dynamic, and the like. The extent of public interest is one clue; the extent and gravity of public failure to understand and co-operate is another. The familiar criteria of *frequency* and *cruciality* must always be applied in determining what content to select. And it must be remembered that there are other educational agencies than the school.

"With so much by way of preliminary, I pass to the sub-committee's two general principles and the present curricula.

"1 The core requirements of a Teachers College should be determined by the professional responsibilities of teachers.

The first danger is that '*professional responsibilities*' may be too narrowly conceived. The question is, What are the *professional* responsibilities of teachers?

The answer, as above indicated, must be found in

- a. The aims of education; and
- b. The limiting factors of the educational situation.

In an ideal situation the professional responsibilities of teachers would be embraced in those duties to discharge which required expert service to a social end,—the adjustment of scholarship to the conservation of precious values. They would be those duties involved in

- (1) Making due recognition of individual differences of capacity for social service—the capitalizing of individual powers; and
- (2) Making due recognition of the kinds of social service most needed by society and servable through school education.

If its graduates entered a situation in which there was a keen consciousness of social needs, a Teachers College could satisfy the conditions of professional training by giving courses in the professional and academic subjects.

In the actual situation, however, these basic responsibilities if met at all must be met within the established structures of public schools, where aims, content, organization, and practices, though largely customary and only half-conscious nevertheless exert considerable inert pressure. Hence, to these basic *professional* responsibilities must be added an exigential professional responsibility, which is by far the most difficult responsibility to prepare teachers for, viz.:

(3) To bring scholarship to bear *within the existing* educational structure so as to approach realization of the social aspects of subject-matter, by adapting subject-matter to both social needs and individual powers, et seq.

"Do the courses in the required core meet these professional responsibilities? They do not altogether. They are both too few and too many.

"Let us follow in this criticism the order of enumeration of the three fields of professional responsibility.

"a. To make due recognition of individual capacities for social service involves,

- (1) Knowing the nature, extent, and causes of individual differences,—especially in so far as these are controllable,—and the consequences of ignoring them in education.

(2) Knowing the nature of children's powers, the order of their development, and the conditions of their development,—as a guide in selecting and adapting material,—and the consequences of ignoring them in education.

(3) Knowing the nature of the learning process,—so that it may be economically and successfully directed into the fields determined upon,—and the consequences of ignoring psychic laws in education.

(4) Having practical experience in adapting material.

(5) Being familiar with the common removable defects, handicaps, et. seq.

It may involve other equally important matters; yet these are enough to illustrate the shortage of psychology in the core. The core as it now stands may cover in four hours the first two desiderata. To become fully useful Psychology 2 needs to be supplemented by another four-hour course at least,—one in which the *laws of the learning process* would be applied to the school subjects; i. e., the Psychology of the School Subjects; and, if equality of opportunity is desired, Child Hygiene becomes essential. This was recognized by the committee, but was omitted *because it could not be agreed* that we should give another required course in Psychology. Education 11 covers a part of this field in resume, but it, too, does not touch the last item. Education 8 would be more useful to two-year students.

“b. To make due recognition of the kinds of social service most needed by society, and servable through school education, involves,

(1) Displacing the detached and magical view of how education serves society, by a view of education as an agency of society, for meeting its most pressing needs.

(2) Exhibiting the nature of social institutions and their relation to social life.

(3) Giving a perspective over the nature and bearings of typical and representative social problems of the day.

(4) Exhibiting the relation of present social conditions to school education.

(5) Building up a notion of the methods of social progress.

(6) Applying the generalizations of Sociology to the problems of the public school—especially to the course of study and organization.

“In the core as it now stands, items 1, 2, 3, 4, and 5 are dealt with in Sociology 3. It cannot deal adequately with 6 also in a four-hour course. To enable Sociology to make its full contribution to education, Sociology 3 should be followed by Sociology 229, in which Social Theory is applied to the Course of Study and the organization of the school. This was reorganized by the committee, but it was not felt that we could require another course in Sociology.

“Biology 2 must necessarily deal largely with the heredity basis of individual differences—using the environmental basis of differences for contrast. In this it somewhat overlaps Psychology 2, which deals with *instinct and individual differences*. The two courses should compromise their differences of view and divide the field where they overlap. Biology 2 also covers one field of typical social problems (see 3 above)—a very grave and important one, which should be understood by *every citizen*. I am inclined to think that, all things considered, Biology 2 should for the present be retained in the required core. But I should not, after the

transition from Normal School to Teachers College has been effected, object to its being confined to the *Teachers Course in the Subject-matter, Function, and Organization of Biology, required of all Biology teachers*, as would be similar courses in each of the special subjects of the high school. It is from teachers of Biology that we should in the future get our supporting public opinion in regard to the unfit population, e. g. Education 11 undoubtedly contains material relevant to both *a* and *b* in the core fields. I opposed it in the committee in favor of Education 8, which especially for two-year students contains much more material relevant to their professional problems. Education 11 should come at the close of the four-year course, where it should be a *summarizing* professional course in the *philosophy of Education*.

"c. To meet individual and social needs in an institution whose established activities are not the result of a keen consciousness of social needs and a scientific alertness to the relation of means to ends, but which may be gradually modified and extended to serve the full ends of public education involves

(1) Applying modern knowledge of individual differences, social needs, and of the present deficiencies of school education to the teaching of the school subjects as they are now made up, to the organization of school activities as now sanctioned et seq., so as to secure so far as possible the social values they contain in way of knowledge, attitudes, and discipline.

(2) Gradually modifying the content of the school subjects by extending the socially valuable material, eliminating the merely disciplinary material, et seq., by careful consideration of the needs of society and the latent opportunities in the school subjects, organization of activities, et. seq., for building up a citizenry equipped with the necessary knowledge and attitudes to realize democracy's ends.

"This aspect of professional responsibility must be regarded by Teachers Colleges as offering by far their most difficult and pressing problems of instruction. In so far as teachers in the public schools meet their responsibilities it will be because they have become thoroughly *conscious* of them. The opportunity of the teacher lies mainly in the course of study of the public schools. The teachers must *know* the *evolution of their course of study, the method of its growth* from the primitive curriculum, the factors that have given it its peculiar emphases on certain content, the relation of text-books to prevailing methods of teaching, the changing opinion in regard to actual values or social potentialities in the several subjects, the methods whereby change in the curriculum has been affected, the changes still needed, et. seq. (For fuller analysis see my *Alanalytical Outline of the Essentials of Educational Organization*, pp. 22-28.)

"If the foregoing brief analysis expresses somewhat the nature of this phase of professional responsibility, then the deficiencies of the *core* should be obvious. Except incidentally and casually in Psychology 2 and Education 11, and in the last section of Sociology 3, there is nothing touching this *heaviest* field of *professional responsibility*. In Sociology 3 alone is it a prominent part of the intention of the course to bear upon this set of problems, and there not much more can be done than attempt to *affect attitudes* somewhat. But to meet this phase of professional responsibility seriously, *much* more than a *sound attitude* is necessary. That is a beginning only. What is the real solution?

"The real solution is one that can not be undertaken all at once—unless we are ready *now* to *frame all our curricula* on a *four-year expectancy*; and until we effect a pretty thorough *reorganization* of our *educational activities*. It involves nothing less than a thorough treatment of the *Evolution of the School Use* of each of the school subjects.

Nothing less than this will give teaching a body of workers sufficiently equipped to transform it into a profession. This would mean a tremendous amount of very useful study on the part of the teachers of the different school subjects in the Teachers College. And it is perfectly certain that very few could be ready to offer a real College course of this sort in their subject within a year. There is at present only one course approximating this standard described in our Year Book; and only one Teachers College in the United States is now *preparing* such courses. But it is equally certain now that this is the direction of effort toward the solution of the phase of professional responsibility now under consideration. In the period of transition from Normal School to Teachers College (which is in most aspects a transition from rule of thumb to scientific procedure) the problem might be met by a 'unit course' scheme—wherein one teacher presented the introductory material on the present *educational situation* and the *social theory*, and in turn the teachers of each of the school subjects presented such material as they could gather concerning the *Evolution of the School Use* of their subjects. This might be managed in a double course of eight hours, possibly the first year. Gradually there should be accumulated in the field of each subject of the common schools enough valuable material to make (say) a two or three hour course. When this is done these courses should be incorporated with the required *core* covering the professional responsibilities of teachers in general—not of special teachers; but each teacher of a special subject should have had a thorough course in the *Evolution of the School Use* of his own subject; and all superintendents should have covered the field over which they have supervision. In specifying this particular type of course I especially wish to *exclude* the usual normal school 'Methods courses,' and the usual normal school 'Review Courses in the Common School Subjects.' There is a place for *Methods courses*, but they *do not meet* the situation for which we need these College courses.

"With regard to the core course requirements that *fall without the principles it should be clear enough that*

"(1) Library Science should be elective, not required.

"(2) Physical Education does not meet any *professional need*—whatever other needs it may meet.

"(3) English 4 would seem to belong on the same basis as the other common school subjects handled in the Teachers College; e. g., Math. 8, Geog. 12, History 13, Reading 9, et. seq. That is, if we are to require courses in these subjects they should not be review courses, calculated to ameliorate public school shortcomings, but should *assume adequate basis in the elements and do College work in the field or else be Teachers' courses* in the History of the School Use of Subjects.

"Discussion and application of the committee's second principle.

"2. The specific responsibilities of the type of position being prepared for should determine all other course requirements.

"The principle seems to me entirely applicable, and clear enough. The difficulty it provides is merely that of *listing and evaluating the specific responsibilities* involved in the different kinds of school work for which the several curricula were intended to be a preparation.

"Do the courses in the several curricula conform to the principles?

"a. **The General Curriculum:** It should be obvious that this principle condemns the 'General course.' General preparation for specific responsibilities is a contradiction in terms.

The 'General course' has been the least satisfactory of the curricula formulated by the committee—because it attempts to *do several things that are diverse* in requirements.

- (1) To receive students who have not yet found themselves, and, while they find themselves, to give them a taste of such work as teachers must do.
- (2) To prepare for grade teaching without specifying what grades.
- (3) To prepare for special work later in
 - (a) elementary school, or
 - (b) high schoolwithout specifying what work.

"Such general (i. e., vague) ends do not admit of a professional adjustment of scholarship to a problem. It is not possible to conceive of a general preparation for specific responsibilities. A statement setting forth such an intention can not be more than verbally intelligible. It can not be given any concrete form by anybody. The more specialized a curriculum is, the easier it is to make the necessary analysis of the responsibilities that are crucial to it; the less specialized it is the more impossible becomes the task. If it attempts only one thing, its crises are clear; if it attempts several, its crises are confused. Hence, the General course could not be satisfactory,—because it could not *focus* on any task. Any attempt to focus it, at once suggests dissolving it into special courses. The specified requirements of the General course illustrate this. As it stands it exhibits the *elementary school goal* of the curriculum. Its requirements do not suggest a high school goal. Had the attempt been made to exhibit this goal, it would have been necessary to frame an alternative set of requirements for those with a high school goal in mind. Thus, the General Course would have broken into two special curricula as soon as the first high school aspirant appeared. The next one would have needed somewhat different requirements, and so forward. In practice the student looking to high school work makes his own curriculum by election. The General Course is thus not one general course but an indefinite number of veiled special courses. The student who takes all the specific requirements of the General course and elects happily may in the end not be very far out of the channels marked out of the intermediate and grammar grade curriculum—but this is haphazard. The two saving graces of the General course lie in (1) the possibility it offers of becoming from two or three to fourteen special courses, and (2) *in the fact it comes more nearly than any other curriculum to making the list of professional requirements complete*. It obviously falls far short of this but any two year curriculum must fall short because it must select from a list of needs that are more numerous than there is time to cover; and because it must also select from those subjects upon which there exists in easily accessible form the material necessary to provide a course of a certain sort. Upon History, Geography, Mathematics, and Reading there exists material which would enable a teacher in a year or so of research to provide the course needed in the *Evolution of the School Use* of the subject. When we get down to brass tacks this will be expected.

"A few more specific criticisms may be apropos here:

1. The courses entitled *The Teaching of History, Geography, Mathematics, Reading* do not meet the needs for which they were asked for by the committee. The descriptions in the Year Book will show their falling short of the intention for which they were required. History 13 comes most nearly to fulfilling the professional requirement which they were asked to meet. Mathematics 8 is not quite so close; and Geography 12 and Reading

9 seem far away from the intention of the committee. This intention is clearly expressed in my Analytical Outline of the Essentials of Educational Organization, pp. 22-28, to which the Sub-Committee on Course of Study is here urged to refer in its deliberations over the General course.

2. The methods courses of the Training School repeat too much of Psychology 2. They have enough to do if they stick to their own field.

b. **Other Curricula.**

General Remarks. The Training School should have positive reactions to the curricula covering their especial years of work. The committee should consider itself entitled to have in writing either their suggestions for improving the curricula which they administer, or else their expression of complete satisfaction with the one that now obtains. It would be strange if the committee succeeded in framing any perfectly satisfactory curriculum.

(1) **Kindergarten.**

Training School 15 is alternative with Training School 31. This means that they do the same thing, or nearly so, in which case there is a case for the Duplication Committee; or else it means that the committee did not know which to require and left the student to settle the question, in which case probably both should have been left elective. Alternative prescriptions are always doubtful. They suggest either uncertainty or duplication.

So with Training School 5 and Training School 6. We don't need both.

If it is true that Kindergarten graduates often have to take primary positions, then probably Training School 1 should be required in the Kindergarten curriculum. If it is not true, then there is no warrant for requiring 15 hours of teaching in the Kindergarten; for this was done on the assumption that they do.

Perhaps Training School 3 should be required in the Kindergarten.

If Kindergarten graduates often must teach primary work, then the Kindergarten curriculum should be much closer to the primary than it is—and should show *fewer rather than more* electives.

Nature study would seem to belong in this curriculum.

(2) **Primary.**

Training School 5 and Training School 6 duplicate each other. It would appear that four hours of the eight now given to *methods* might be given to (say) Reading and the *Primary Course of Study*. Is the Kindergarten program more difficult than the Primary curriculum? It would apparently be easier to combine Kindergarten and Primary than the following years.

- (3) Much uncertainty is introduced into this curriculum by the *absence of descriptions of several of the courses*. The vacillating alternative prescriptions are a further element of failure in this curriculum. The misleading titles "History Methods", et. seq. should be changed, and the year book's descriptions of those courses should all be made to conform to the committee's intentions in prescribing these courses in the General Curriculum.

Probably a course in School Management is needed in these grades. Problems of control arise here.

In these grades elimination from school becomes heavy—very heavy in Colorado. In so far as physical handicaps are caused in this the school can do something if its teachers know the symptoms of such handicaps. If Child Hygiene be made a core requirement this will be met. Otherwise, possibly here is where to introduce it—on an opportunist basis.

If we can not yet bring ourselves to the modern attitude toward professional courses in the Evolution of the School Use of the School Subjects so far as to require these in the core, when we need in *each* curriculum a course on the *Course of Study* in which we at least admit its problems.

(4) County School.

Sociology 6 in the Year Book is an elementary course in theoretic sociology. No good reason can be given for requiring it in this curriculum. Either Rural Sociology or Sociology 3 should be required here.

Education 25 in this curriculum recognizes the general idea broached in my discussion of the General Course, the primary, and the intermediate and grammar grade curricula. The position is sound. It is a part of professional training. (See the courses offered by the Industrial Arts curriculum on its tools and equipment.)

The courses on *The Teaching of Geography*, et. seq., are open to the same criticisms here as elsewhere, though in less degree, possibly.

Agriculture is useless in the country unless taught as *projects*. If *academic*, it is merely *silly*—a carrying of coals to Newcastle. Think what can be done in teaching Agriculture in the country by town-bred girls with four hours of Agriculture. Will it be “dry-land or irrigated Agriculture? What course is this one in the *Year Book*, pray? There are forty listed. See the State Course of Study and consider what it outlines. Will you specify that for the present, for the sake of having some *reason* (even though a poor one) for prescription?

Public Hygiene 5 is not described in the Year Book. It is much more appropriate for city schools than for rural schools. The lack of General Science in this curriculum seems to me a weakness. In this if in any curriculum the *electives* should be enumerated.

(5) Industrial Arts.

The group of electives enumerated seems without reason, for the most part.

There ought to be a course in which the *Evolution of the School Use* of these subjects is given. I think this has been a part of the intention of Industrial Art 5, but am not sure.

(6) Music.

I suppose a music major would *appreciate* music. But she ought also to learn how to *foster appreciation* in those with less opportunity to know music. I think she should take whatever course in the appreciation of music is offered by the department, in order that she may observe how appreciation may be encouraged. If music is for anything, it is for enjoyment by those who can not make money out of it.

(7) Household Arts.

The only criticism that I have to offer here is that students complain of being required to take courses which they have already had in high school. I have verified this as far as I can. I believe that it is the case. Either we offer high school courses in College, or else *some* high schools give college courses. In either case we have no business to *repeat*.

From a social point of view *all women* should be given at least one course in Child Hygiene. I am aware of the objections to this, but do not care for them. Most of our teachers early marry out of teaching. They will thus come to realize and support the most useful work that we do.

(8) Household Science.

I suppose it is permissible to mention again the household science of rearing children. All women in a nation like the United States, which has a higher infant mortality rate than most of its rival nations, should have a course in child hygiene. They will have more practical use for it than for most other knowledge they get. It is knowledge for a *crucial* situation.

(9) Fine and applied Arts.

In my ignorance, this looks satisfactory.

(10) Agriculture.

What physics? What Poultry? Do we get no boys from Dry Farming regions? Do we send no teachers to Dry Farming regions? Why no course in Farm Economics? Why not General Science in this curriculum? Here again, should not electives be enumerated?

(11) Physical Education.

If physical education majors teach nothing else, possibly Sociology 1 should displace Sociology 3. Perhaps English 4, Psychology 2, and Education 11 could be displaced by courses in the Training Table, Nutrition, Social Hygiene, or the like.

(12) Commercial Arts.

Sociology 7 in the Handbook of Extension (the only place it is listed) is Social theory. I can see no reason for it here. By a stretch of imagination one might have placed Social Psychology in this curriculum—but not Social Theory. Business Psychology would be desirable if it could be had.

The History of Commercial Teaching is worthy of praise if it has been actually worked out. It is a part of the professional preparation of the special teacher in this subject.

The number of hours in the technical subjects seems small for high school teachers.

Probably here again the electives should be enumerated. **"Conclusion.** None of these curricula will be satisfactory until all are worked out in full on a four-year expectancy. I do not care just now whether they are so printed or not—though they should be to offset criticism from the universities. But I distrust all half-done work. The perspective that we need for the short courses will not be had until we have tried to work out the second two years. Curricula for superintendents and for high school teachers of the special subjects should be at once worked out.

"Besides selecting content to meet general and specific responsibilities, those who frame a course of study should feel bound to *arrange* this content so that it may produce the desired effects. Some subjects are advantageously taken only when certain other subjects have already been studied. The value of any course depends somewhat upon what it added to. There has been too little careful attention to the ordering of our courses. By so much as this is true our work is not *organized*.

Especially in the required subjects there should be some sequence that is better than just any sequence. I shall not prolong this report by attempting to point out the *need of naming prerequisites* for certain courses. It is clear that for the professional courses an *academic* basis is *indispensable*. It should be named and *made elective*.

"Again, a course of study committee should probably assume the responsibility for the administrative work of scheduling the studies so as to make the program work as nearly automatic as possible. Here again I shall not go into detail. One illustration will do; e. g., Domestic Science people could work much better if their Chemistry were scheduled in the afternoon. As it is scheduled in the morning they sometimes have to try to schedule 8 hours in the afternoon. Laboratory courses thus often give the students very hard schedules.

"Summary:

The weaknesses of our present curricula show three main aspects:

1. Failure to work out consistently or completely the concrete implications of the general principles governing the selection of studies to cover both the general and the specific responsibilities of teachers.
2. Failure to consider the relations of subjects to each other—the sequence in which they should be most effectively studied.
3. Failure to set these studies in a schedule that would facilitate the operation of the program.

"Having thus in some detail called attention to deficiencies in our curricula, it is important once more to insist that the *first failure* is the fundamental one. No *arrangement* or scheduling of poorly chosen studies can excite much admiration. If our *general principles* are adequate they should be applied thoroughly. If they are not adequate, the attempt to apply them thoroughly will reveal quicker than anything else their *inadequacy*. Let us therefore complete our summary by bringing together in the form of a list of studies or unit courses the results of the foregoing criticisms—exhibiting the *responsibilities* to be met, the studies appropriate to them, and the *time* needed to make the studies effective all in conjunction in a Core group of studies.

I. THE GUIDING PRINCIPLES.

1. The professional responsibilities of teachers should determine the Core requirements.

These responsibilities are three:

- a. To adjust school work to individual differences.
- b. To adjust school work to social needs.
- c. To adjust existing school aims, subject-matter, organization of instruction, et seq, to the needs of society and the capacities of the individual.

2. The specific responsibilities of the different kinds of teaching position should determine all other course requirements.

These responsibilities vary with the age of the students, the composition of the population, the subjects of study involved, et seq.

II. APPLICATION OF THE PRINCIPLES TO THE FRAMING OF A CORE OF STUDIES.

The General Responsibilities.	The Topics of The Courses. Study	The Time Needed.
1. School adjustment to individual differences Involves knowledge of		
a. The nature of children's equipment for life in society.	Instincts; individual differences. Order of development. Conditioning factors. Situation, re- sponse.	5 hrs.
b. The method of mental growth.	Stimuli, the learning process. The organization of experience. Conditioning factors.	5 hrs.
c. The application of psychological knowledge to the school studies.	The psychology of the school subjects. The adaptation of material. Critical examination of text-book. Organization of knowledge for the different grades. Critical examination of school methods in the school subjects. Scales, measurements, tests.	5 hrs.
d. The testing of school work.	The relation of individual to society. The organization of society. The structural elements of society. Institutions as evolutionary products. The meaning of progress.	5 hrs.
2. School adjustment to social needs involves knowledge of		
a. The nature of society.	The methods of progress. The barriers to progress. The rival methods of organization, and the consequent problems of democracy.	5 hrs.
b. Present social strains and deficits.	Representative social problems. Origins and interrelations of social problems. The relation of change to social problem. The relation of change to institutions.	5 hrs.

Responsibility.	Topics.	Courses.	Time.
c. The bearings of Sociology upon the Course of Study and the organization of school activities.	The school as a social institution. The social theory of education and its implications for the Course of Study and the organization of school activities.	Educational Sociology.	5 hrs.
d. The formulated Educational thought of the time.	The persistent problems of education, and the widening horizon of explanation. The present centers of interest and conflict. The tendencies of effort.	Philosophy of Education (Ed. 11 and Ed. 8).	5 hrs.
3. The adjustment of school aims, subject-matter, organization of instruction, et. seq. to social needs and individual capacities involves knowledge of			
a. The evolution of the school. Use of the school subjects.	The social forces by which the subject became a part of the curriculum.	The Elementary School Curriculum.	8 hrs.

The whole social situation out of which the demand for the subject arose and in which the attitude of the school to the subject took shape: educational philosophy, science, industry, et seq.

The school refraction of the subject—its causes and results.

The evolution of aims and practices. The relation of text-book organization of knowledge versus psychological organization of experience.

The present status of opinion in regard to the values of the subject. The relation to these of the changing social situation. The changing character of text-books.

The standards of value in the subject as today evaluated. Their relation to established practices in the use of the subject.

The nature of the problem of the modern teaching of the subject—its factors. How to work on it.

“Such a comprehensive scheme would be feasible only in a four-year curriculum. Note that it covers 48 hours—one full year of work. Note also that the *scope* of the units is *widened*, and that the *content* of each is so defined as to eliminate overlapping. This would mean a sharpening of purpose in our required work—which could be secured absolutely by requiring *syllabi* of required courses. Spread over four years the enlarged core would not be disproportionate. It would not be heavier than

the present core is for a two-year curriculum. Note also that the present core is an attempt to meet *essentially the same general responsibilities* as the larger core: e. g.

PROPOSED CORE FOR FOUR YEARS	CONTENT	PRESENT CORE FOR TWO YEARS
Child Study. 5 hrs.	Instruct individual dif-	Educ. Phy. 4 hrs.
Educa. Psych. 5 hrs.	ferences conditioning	Biol. 2 4 hrs.
Psy. of School	factors.	Educ. Soc. 4 hrs.
Sub. 5 hrs.		Educ. 11 4 hrs.
Mental Tests and Measures 5 hrs.		16 hrs.
Social Organiza- tion. 5 hrs.		
Social Malad- justments. 5 hrs.		
Educ. Soc. 5 hrs.		
The Course of Study 8 hrs.		
The Philosophy of Education 5 hrs.		
48 hrs.		

PRIMARY GRADES COURSE

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16.—“As this course has been considered very little in the present year’s work, it is hard to criticise from experience—it must be mostly theoretical.

“First, if the object of this school is the *training of teachers*, there surely should be some means devised whereby the students may have at least the amount of teaching *required* in the year book. Is our aim to have the names of so many graduates to the credit of our school or are we endeavoring to graduate students who can *teach*? These points must be settled before a curricula can be intelligently discussed.

“If the former object be decided upon, it would seem to matter little *what* the course of study is—just so we are sure the students *earn* their credits.

“If we are really aiming to train students so they can really teach when they leave our school, then let us remember one of the first principles of life as well as of education, i. e. “We learn to do by doing,” and consequently let us include in our course of study sufficient teaching (not to be substituted by observation or methods) so the student can be reasonably sure that he can teach.

“Furthermore, if we hope to give to the educational world any teachers above mediocrity let us give the student who shows superiority an opportunity for superior development. In other words, shall we excuse a girl from the required amount of teaching because she shows superiority, and thus graduate one more ordinary teacher, or, shall we, because of this promise of superiority give her all the required teaching and make possible more—in order to help her to be superior. Let us consider it both from the standpoint of the reputation of the College and also from the good we hope to do in the educational world and for the individuals. I think we already have examples of such cases.

“Methods and observation should be included in the same course, and this course should be a required in the Junior year. Would it not be

better to make out the course of study for each year in place of having the course cover the two years almost indiscriminately.

"Music Methods for the Primary grades have been omitted from the catalog. It must be a type error, as it was included in the course which was approved last year. *Two* courses of Story Telling should be required as a large percent of primary work is based on Story Telling. Each course 2 hours. Training School 3 has not been offered this year. I should advise its being dropped from the requirements of the first two years. It should be in Senior College.

"We hear much about Training School 1 not being practical for Primary teachers. Might it be possible that Training School 5 and 6 would make it unnecessary for those specializing in Primary.

"Dr. Adams advises Nature Study 2 in place of Zoology 5."

THE EFFICIENCY OF COLORADO STATE TEACHERS COLLEGE GRADUATES IN THE FIELD OF PUBLIC EDUCATION

By S. M. HADDEN

A questionnaire to the county superintendents of the various counties of the State of Colorado and many of the leading superintendents of the State was sent stating that it is sent out for the purpose of finding out the efficiency of Colorado State Teachers College graduates. It is copied in full below, and I believe explains in sufficient detail the purpose of the questionnaire.

"A Committee of the faculty is trying to secure information regarding the efficiency of Colorado Teachers College as this is revealed in the work of its graduates. It is intended to make this study cover the entire period of the school's existence. You can greatly assist us in this work by giving frank and as complete as possible statements concerning the following matters. Your answers will be held strictly confidential.

Very truly yours,

(Signed) J. G. CRABBE,
President.

"1. State the length of your service in Colorado.

Place Date of service in each place

"2. Give names of graduates of this institution who have served or are serving, under your supervision and who, in your judgment, were, or are, successful teachers.

Name Place Reasons for success

"3. Give names of graduates of this institution who have served or are serving, under your supervision and who, in your judgment, were not, or are not, successful teachers.

Name Place Reasons for failure

"4. Give names of graduates of this institution who have served or are serving, under your supervision and who, in your judgment were, or are, of medium ability as teachers.

Name Place Reasons for ability designated.

Replies were received from practically all of the county superintendents and many of the city and large town superintendents in Colorado.

Number 1—State the length of your service in Colorado.

This was, from my standpoint, not a valuable question to ask these superintendents and principals and, as we expected, the results revealed nothing particularly worth while. We, however, thought it wise to put in the questionnaire some question that could be answered readily since those following require considerable time and investigation of the records of the various counties and cities in the State.

Ordinarily people in executive positions are not willing to take sufficient time to the answering of questionnaires of this kind, with the result that the findings become correspondingly less valuable. This first question gives us a fair idea of the length of service of each individual answering the question, which helps somewhat in our evaluation of the further replies to the more important questions following.

Number 2—Give names of graduates of this institution who have served, or are serving, under your supervision and who in your judgment were or are successful teachers.

Below, under the head "Reasons for Success" are a number of typical replies regarding the efficiency, etc., of individual teachers who have in the opinion of superintendents been successful. These replies are particularly valuable since they throw some very interesting light on what should be the required materials of the courses of study in order that teachers in service do their work in the most complete and most satisfactory manner.

"Neat, attractive, good disciplinarian; hard, conscientious worker."

"Patient, hard worker; discipline good; instruction and preparation good."

"She lacks animation but makes up for it in hard, conscientious work. Work well planned and is always looking for helpful suggestions."

"Secures interest of children. Gives a variety of work, but all is fairly well organized."

"Appeals to children because voice and manners are pleasant. Has her work well planned."

"Well poised, good control, quiet manner, firm. Well planned work."

"Understands how to gain confidence of children. Secures results. Good discipline."

"Children foreign and she is genuinely interested in them. Secures their confidence. Strong community interest."

"Genuine interest in the life of the children. Arouses ambition and gives children a broader outlook. Can teach children more than the work of their text-books."

"Well liked by children; good in discipline; works well with community. Secures results."

"Well poised, very pleasant voice and manner. Works in a foreign district and is particularly good in teaching language. Attractive to children. Discipline good and work well organized."

"Patient, conscientious, good worker. Discipline good. Work well planned."

"Only fair, weak in her subject-matter but anxious to succeed and works hard; pleasant manners."

"Had a definite aim and took most direct method to attain it. Good control."

"Exceedingly attractive, and secures immediate response from children. Gives any amount of time and effort to secure results from the most unpromising child. Community interest strong. Very original and resourceful."

"Children will be attracted by her voice and smile, at first; she holds their confidence and secures good results."

"Well trained mind, sureness in her subject, inspires confidence in her pupils. Secures order with ease."

"Good primary teacher. Pleasing voice and manner. Secured response from children."

"Neat; thorough in work; liked by children; secures results."

"Secured results in this school, which is something of a problem. Would not fit everywhere. A peculiar personality."

"Strong in administration. Good instructor. Knows his subject and presents it in a direct manner."

"Good grasp of educational principles. Willing to carry out instructions of superintendent to best of ability. A very able school man. Good judgment, unusually well prepared, open to suggestions, does not pretend to know it all. I have no stronger teacher than Mr Blank."

"Well prepared, good judgment, willing worker, open to suggestions, attitude of learner."

"Nice temperament for small children. Fair grasp of principles, willing worker, open to suggestions, attitude of learner."

"Complete success in the school room but a little careless socially. Nevertheless, I should not hesitate to recommend her re-election."

"The most original primary teacher it has been my privilege to meet. She not only works hard in the room but grows professionally all the time. True professional spirit."

"Sincere in purpose, and sympathetic and pleasant with third grade children."

"Cheerful disposition, good manager, good growth."

"Good instructor, enthusiastic, alert, good manager."

"Manual training teacher, pure gold, very successful, knew her work. Knew how to teach; also a refining influence upon her pupils and associates."

"None better. Perhaps a little conscientious; one of the best teachers I ever knew. A steady worker who secured good results. Excellent manager."

"Has the necessary qualifications of a teacher. Her Irish manner gets hold of all her pupils."

"Experience. Understands her pupils well. Uses a group study and group teacher plan in most of her work."

"Well informed primary teacher. Is known by every child and parent in the country and trusted. Has strong personality."

"Careful, alert, adaptable."

"(Commercial Teacher.) Successful because of the great amount of energy and enthusiasm that she puts into her work."

"Personally I feel that Greeley does train teachers. I do not know of a single graduate who has failed to make good in our county."

A list of replies from another group of questionnaires in which the replies were more general and referred to groups of teachers rather than to particular individuals:

"Ability as an instructor, ability as disciplinarian, community work, the rather indefinite answer 'Good training,' push and energy, method, artistic, good sense, hard worker, well prepared and conscientious, specially adapted and well trained, native ability and normal training, special training for particular grade or work, strong, well trained, earnest efforts, good mixer, gets along well with pupils, scholarship and personality, industrious, loyal, faithfulness, adaptability, painstaking, patient, determination, lover of children, progressive, quiet manner, neat, system-

atic, forceful, quiet, unassuming, good poise, tactful, resourceful, common-sense ability to do things, ability to control and influence for good, broad human sympathy, ability to meet emergencies, kind, original, knows how to teach, makes thorough preparation, alert, excellent manager, strong character, fitness, firmness, gentleness, knows material and means to make things go, able to interest and keep interested, takes suggestions, courteous, beautiful character, high ideals, confidence in own ability, natural aptitude for doing combined with adequate training,"—this in general comprises the terms generally used by the county superintendents in evaluating the ability of Colorado State Teachers College graduates who have made good.

A careful survey of the replies from all of the questionnaires gives some very interesting materials for consideration in the organization of courses of study for teacher training institutions. Logically, and we might say naturally, these replies fall into one of three groups and involve not only fields in which the College may hope to give training, but also other fields in which the larger environment plays a very important factor. We are listing these as we see them. We cannot cut a beautiful finished diamond unless we have the rough diamond materials with which to begin:

a. Personal qualifications and characteristics that are responsible for the success of individuals, and also characteristics that we will see upon further analysis are also responsible for individual failures.

The terms industry, loyalty, faithfulness, adaptability, personal neatness, gentleness, high ideals, common-sense, the dedication of one's ability to the best service of the community and many other qualities that make for personal charm and indefinable somethings that no amount of good learning can give.

The terms personal qualifications and characteristics we know are not capable of a definite definition. We do have a general understanding of and feeling for such a power in an individual that will attract to him the people he or she desires to attract. The individual that has these characteristics we are always glad to meet and are more than glad to have an opportunity to discuss viewpoints with them. They are the people that the children say can do anything. At one time I was taking with some eighth grade pupils who were discussing the rather serious and difficult problems involved in a contemplated undertaking and suggested that the problem as a whole was too difficult. The pupils replied: "Miss S— can do anything." With such confidence in their instructor pupils are able to reach unexpected and very difficult ends. The child must have confidence in the teacher's ability to do.

This again means that teachers must be trained in the fields that make for efficiency in the lives of people now, not in the fields that make for the training of teachers to understand the lives and experiences of long past civilizations, unless this is possible without materially shortening the course in the materials needed to be understood to interpret our modern civilization.

b. Social Viewpoint: Those teachers who are able to become important factors in the social life of the community, and who have ability to organize the school work of the children with a social background.

In this modern day when real education is more and more functioning from the standpoint of community needs, when educators go into the community and become worth-while factors it is highly essential that teachers graduating from Teachers College be given a broad understanding of the movements that are worth-while from the community standpoint; that are going to help in the general tone of these communities.

Young men and women graduates are very glad to assume their proper share of the burden, but in most cases they do not know they need people to direct them. Later if time and space permit, we will interpret the social viewpoint in the light of these questionnaires in a more extensive way.

6. Technical Training for Profession: Training for work undertaken, a lover of children, and special preparation for the particular job, were the types of replies the emphasis was placed on, plus association with people who would inspire the new teacher to do, and to become more efficient. In other words, a feeling and understanding that the educational problems have not been solved, that the organization and re-organization of the schools must, if to be most highly efficient, go hand in hand with the development of the civilization of the age; if a mechanical age, then the mechanical becomes an important factor in the development of the school work.

Under the third head: "Give names of graduates of this institution who have served, or are serving, under your supervision and who, in your judgment, were not, or are not, successful teachers," I find that the great majority of the students, and the number as a whole is exceedingly limited, who have not been entirely successful in their school work might be grouped under the following heads. These replies are from the questionnaires and throw an interesting light on why teachers fail:

"As a rule C. S. T. C. graduates have made strong teachers for me. I think of two or three who were only fair teachers, and in each case I attribute their failure to reach the highest efficiency to personal characteristics for which the school was not responsible. In twenty years experience in Colorado I have had only one teacher who was a real failure. Her failure was not due to her school but to personal traits of character that would not yield to treatment."

"Cross with children, untidy in appearance, work lacked organization, meddlesome with other teachers, ill health."

"Very nervous, voice sharp and hard on nerves, nags, always aroused antagonism in the children. Order very poor."

"Unreasonably severe, created fear in the children."

"Lax in discipline, poor in instruction, work unorganized."

"Unreliable, finally discharged because of continually coming to school late, and somewhat questionable conduct."

"Would not say that she is a failure but her success is a question. There seems to be quite a bit of dissatisfaction. When I saw her, her work was not well prepared, her room was untidy, her manner of dressing has been unattractive and sometime untidy wherever I have seen her."

"Wholly lacking in earnestness three years ago. Very indiscreet in conduct. Again the community may have been partly at fault."

"Unable to apply pedagogical principles, not fitted for teaching by nature."

"No stability, too flippant, no serious interest in teaching."

"Careless, no serious interest. "Did not like hard work."

Under the fourth head "Give names of graduates of this institution who have served, or are serving, under your supervision and who, in your judgment, were, or are of medium ability as teachers," we received a group of replies from which the list below is taken.

"Capable of *excellent* work. Is not dependable; one has to keep her under watch all the time. Not loyal, slights her work.

"Unwilling to put forth sufficient effort. Not especially fitted for teaching."

"Never willing to take suggestions. Knows it all; disloyal; a nasty disposition, says first thing that comes into her mind."

"Fails to command attention of grade pupils. Methods are better adapted for High School or College students. An earnest worker with high ideals, but lacks executive ability."

"Lack of experience but is improving nicely. Very enthusiastic and hard-working."

"Doing well in rural community. Needs experience before being better placed. A good earnest girl."

"Methods rather old fashioned. Not in sympathy with that particular community, but would suit nicely elsewhere. Morals and ideas of the highest class."

"New in the work since January 1st, but doing nicely. Good control of pupils, pleasing manner and seems thorough in her work.

"All those that I have classed as successful are, in my judgment, fairly entitled to be so ranked. Such shortcomings as a few of them may have had were not fatal and were overcome with a little experience. I refer to such matters as a lack, in a few instances, of management of a large group of pupils, a disposition again in a few instances, of attempting to fit the pupil to the method, and a disappointment at not finding ideal conditions. A little time and patience remedied these undesirable features."

"Not a failure by any means. Not so enthusiastic about her work as some others. No special community interest."

From a Superintendent graduate of the College: "Being very modest, of course I would not class myself with the list of experts and would dislike classing myself as a failure, therefore, I shall leave that part of our classification of teachers for Teachers College to do."

"A fair teacher and possibly will receive re-election if she wants it. Not very strong. Does not take care of her strength as much as she should. She is quite inclined to matrimony at present."

Questions number Three and Four, as interpreted in terms of answers submitted, imply a lack of personal characteristics that make for a professional attitude toward the teaching profession. A few outstanding ones are: Unwilling to put forth sufficient effort, unreliable, very indiscreet in conduct, voice sharp and harsh, ill health, no stability, flippant, and untidiness in dress.

Again from the social viewpoint there seems to be on the part of those who were a failure or only a partial success a lack of social responsibility, not in sympathy with that particular community, no special community interest, has other personal interests, disappointment of not finding ideal conditions, and many other shortcomings. Time and space do not permit enlarging on the terms in this list.

c. Training for Profession: Under this head we might enumerate such items as: needs experience, methods rather old fashioned, work lacked organization, work unorganized, lax in discipline, poor in in-

struction, order very poor, meddlesome with other teachers, created fear in children, and lacking in earnestness.

Conclusion: The training of an efficient teacher then, as interpreted in terms of the answers in the questionnaires sent out by our committee, seems without any doubt to imply that it is imperative that teachers be trained in the following needs:

Personal: I realize we are treading on thin ice when we are trying to define personal characteristics that make for efficient teaching, but we are trying to evaluate in terms of the questionnaires sent out. It seems to mean such an attitude of mind, such a sympathetic spirit, such a wholesome personality and such a broad, optimistic viewpoint coupled with an inquiry into the why that a student coming in contact with such a teacher will be inspired to make the best possible out of himself.

Social: Teachers should be trained in the social understanding in order that they may be able to intelligently interpret the best life of the community in which they are teaching in terms understandable by the pupils, that they become a factor for good in the social uplift of the community; that they be interested in worthy community undertakings of all kinds. In other words, that they become a live directing force for good in the community. This in itself implies a training of a type that is not common in all our teacher training institutions.

Later, if space permits, we hope to interpret this in terms of the curricula of this school, evaluating them from the standpoint of the terms of these replies.

Technical or professional: This we interpret to mean training, interpreted in terms of questionnaires, in the materials of understanding as applied to contemplated teaching work in particular teaching fields.

The individual trained for some particular work is of much more value than one trained in a general way, which in this day and age of specialization means nothing. Teachers must be specialists if they are to succeed. Leaders in education are more and more realizing that the field of human endeavor is so comprehensive that it is impossible for one individual to know any but a very small part of the complete activities of peoples. Replies to this section of the questionnaire seem to demand special training for service in whatever educational field an individual attempts to teach and points directly toward the modern movement in education as being along the right direction. I mean the Junior High school grouping especially.

QUESTIONNAIRE TO GRADUATES OF THE COLLEGE

By S. M. HADDEN

A questionnaire was sent out by the subsurvey committee on curriculum to all of the graduates in the state of Colorado, asking them to carefully fill in replies to the questionnaire below:

Dear Alumna (us):

In order that our school may render the best possible service to the people of our State, we beg leave to ask you for a very careful and frank reply to the following questions:

1. Are you married or single?
2. What course did you take in our school?
 - a. General
 - b. Special (specify which special course)
3. "On account of the deficiencies in the training received in our school, what positions did you,
 - a. Fail to secure?
State the deficiencies.
 - b. Refuse to accept?
State the deficiencies.
4. Have you been assisted in securing a position through the kind of training received here? Specify the kind of training.
5. Make a list of the positions you have held since graduation here.
 - a. Teaching:

	Place	Date	Salary	Grades
1.				
2.				
3.				
4.				
5.				
6.				
 - b. Other sorts of work:

	Place	Date	Salary	Sort of work
1.				
2.				
3.				
4.				
5.				
6.				
6. In regard to the positions of teaching listed under a in 5 please specify: the kinds of training:

	Found most useful	You felt most in need of	You have not found useful
a.			
b.			
c.			
d.			
e.			
f.			
7. In regard to the other sorts of work listed under b in 5 please specify the kinds of training:

	Found most useful	You felt most in need of	You have not found useful
a.			
b.			
c.			

8. Since graduating from our two-year course have you received, here or elsewhere, any training?

If so, state:

Place beginning work	Date of ending work	Subjects studied	Degrees Diplomas
a.			
b.			
c.			

9. Please give any additional information and suggestions which you deem of value to your College in its efforts to develop a curriculum well adjusted to the needs of its graduates.

We extend our sincere thanks and best wishes to you for a prompt and careful reply.

Very cordially yours,

J. G. CRABBE,
President.

The committee received replies from about 1,000 former students and graduates of the College. Question number 1, are you married or single, was sent out at the request of some of the members of the committee. This section of the questionnaire is of no particular interest to me in my study of the curriculum. It, however, shows some matters of interest to the authorities of the College, and if properly tabulated would show an interesting graph of the possibilities and opportunities that men and women students have in the teaching profession.

Number 2—What course did you take in our school? (a) General. (B) Special. Specify which course. This section of the questionnaire is not at all a fair measure from the beginning of the school of the number of people who have completed either a so called general course or a special departmental course.

For a number of years after the founding of the College the only course in the curriculum was a somewhat general course that seemed to be the best type of organized course known at that period for the preparation of public school teachers. With the evolutionary changes in education, along administrative and instructional lines, there were gradually added to the courses those we have been pleased to call special or vocational courses. The questionnaires have been sent out to all of the graduates we were sure were available in the State, that is those whose addresses were permanent at the time. The great majority of the graduates completed this so-called general course. Long before the special courses had developed into special courses for departmental diplomas there were courses offered in Manual Training, Domestic Science, Household Art, Art and Music. These I believe were at first departments that offered special departmental diplomas, and were also the first group of so called special subjects that had a place in the general course.

An interesting bit of information that persists in the reply to sub-head (b) is that with the advancement and addition of more special courses in the College, more and more people are becoming interested in the teaching of special lines of work. In other words they are beginning to realize that in the efficient organization of the modern public school, practically all of the teachers above the, say, first five grades must be specialists if they are to do the most efficient type of educational work, since the relation of public education to the future activities that children are going to enter is becoming a very much more important factor in the organizing of the preliminary school activities of children. The departments that stood out in the earlier plan of offering special courses were first, Music; second, Manual Training; now, Industrial Arts, Art, Arts and Household Science expanded into the two departments named, and the offering at a later period in the school of a course with the major in Agriculture. At one time it was the practice in the insti-

tution to give a general diploma to all graduates of the College and to those who had done efficient work in any of the other special departments named above, a special diploma that stated that the graduating student had become an especially proficient teacher in this particular field.

The organization of the material in the annual catalogs of the College from year to year shows a gradual addition of special courses with a corresponding decrease in students in the general course. At the beginning of this survey the Institution offered a general course, but offered twenty-six special courses that have a common educational core running through them all.

Number 3—On account of deficiency in training received in our school, what position did you (a) fail to secure? This section of the questionnaire we anticipated would have some interesting replies, but unfortunately, practically the entire group of graduates seemed to feel this particular question of no account, and in other cases the replies were of such a nature that they did not bear on this particular topic. I am inclined to think that in general graduates did not appreciate, or we were unable to ask the question in the proper way. To illustrate what I mean, here is a reply to this question: "I have no fault to find with the training as a whole. A few courses were not very helpful, but perhaps that was my fault. Geography was least helpful. My term in Greeley was not especially happy; perhaps that too was my own fault because I was shy and retiring. I never felt that the school took any interest in my receiving a position after I had received my training." That is one of a few replies received, as I said before. Most to whom questionnaires were sent either left this section entirely blank or wrote in the word "none" after this question. The same is true with regard to (b), refused to accept, and there were no worthwhile replies to this section. The implication would be either that students attending school did not know that they were receiving the best sort of training that best fitted them for what they expected to do or actually did when they entered the institution.

We always try to read only what we can in a questionnaire. The general fault to our mind with questionnaires is that generally the answers to the questions are implied in the questions asked.

In general the replies showed that the students had not really been at any time thinking of the things that were lacking in the course of study they took in the College, but when they found that they really wanted work of a kind not offered in the College when they graduated, they either came back and continued their educational training in this institution or attended another institution for further training generally along definite lines.

ANALYSIS OF THE COURSE OF STUDY

Year Book 1917-1918

By S. M. HADDEN

In an analytical survey of the Course of Study we must, of course assume

I. That a Teachers College is a professional institution and we are therefore correct in assuming that any course of study offered is for a definite purpose, occupying a definite place in the curricula and included because of a need for that particular type of course.

II. We think we are also correct in assuming that since all of the courses now outlined lead to training of teachers for only two years our school is fundamentally only preparing teachers for elementary schools. In other words, we have not as yet developed a four-year course of study that will prepare teachers for high school service.

Keeping in mind these two statements we wish to discuss the courses that seem to prepare for specific types of teaching.

General Course.

Our catalogue statement regarding the General Course is as follows: "A two-year course planned for those students who expect to become general grade teachers or who wish to become specialists in some subject in which they expect to major in the third and fourth years of their College Course. A student who expects to become a high school teacher of some one actual subject such as History, English, Mathematics, etc., should take the first two years in this group."

We can, then, expect in our analytical survey to find a very interesting course since it assumes to prepare teachers for almost all lines of work that are constantly offered in most elementary and high schools.

Since the core subjects have been discussed in another section of this report we are including in this report only the required subjects of this course.

III. Subjects of the General Course.

1. Child Hygiene. This course, in our opinion, seems to be very valuable because it deals with the health of children showing the teachers what should be done for the arrangement of the room and what to look for in the care of each individual child where corrections seem to be needed.
2. Education. (Selected) There are fifteen possible courses offered in Junior College according to directions given in the catalog. A student, then, we assume, may fulfill this requirement by taking any one of this group of fifteen courses. They are as varied as courses in Education could be, from the History of Ancient Education to the study of the most modern groups in modern Education. This indefinite way of selecting a course in Education to fill this re-

quirement can lead to only one conclusion from the standpoint of the Survey Committee, namely, that since no definite type of course is outlined we can assume that no course in Education is really necessary for the complete training of an individual who is taking this General Course.

This course then is very faulty in this particular and should be corrected. We would suggest that if some Education course is needed that such a course should be outlined definitely. It should state the needs for such a course and then outline in detail showing the material of this course that would cover that requirement.

3. General Science or Nature Study. These terms as suggested in the curriculum are so indefinite from the standpoint of the curriculum that they need a very definite analysis.
 - A. If we are to assume that General Science is selected by the individual student then Nature Study is not essential, or if Nature Study is selected by the student then General Science is not essential. We must assume, then, that Nature Study and General Science in their development lead to the same general conclusion, or point to the same road in education. As far as I am able to interpret these two subjects this is not true. The Nature Study work is for the most part seasonal as outlined and is offered during the times of the year when life is best studied, namely during the spring and summer quarters. There is, however, another Nature Study course that, in my opinion, *would be more valuable*. A course dealing with the teaching of Nature Study. The Nature Study course that I feel is the most valuable is Nature Study 2, Page 71, 1917-18 Year Book.
 - B. General Science. This course we find listed as General Science 4, Page 72 of the same Year Book. This course deals with general scientific phenomena. Comparing the material of this course with the material of the Nature Study course we do not see how it is possible for any one to assume that the taking of one of these courses equally well fills the requirement of the other. We are safe, then, in assuming that either both of these courses are necessary or that neither is essential to the complete development of a course of study of this kind.

We feel that this section of the course should be very much more carefully outlined in order that there might be a complete understanding of what is expected and why such a course if offered.

4. Observation, Methods and Teaching. This group deals with the application of the fundamental notions gathered from the historical setting or history of the subjects that are taught in the elementary school and I think we will all agree should be a part of the course in College.
5. We have, beside these, four courses that are special to deal with the teaching of Geography, Arithmetic, History and Reading. We assume that if these courses are to be given they should deal with the history of teaching of these subjects and should not be a rehash of the material the student has been studying for the past eight or ten years in the public school.

The Geography, judging entirely from the catalog material, seems to be only a general Geography course that we would call a rehash.

The Arithmetic, in our opinion, is somewhat more fully and definitely outlined and is quite a good deal better.

The History is the best outlined course in this group and, in my opinion, touches the point.

The Teaching of Reading course as outlined in no way touches the historic phase of reading and in the opinion of the committee misses the mark.

We now have to deal with the reason why this material was selected as part of the curriculum of the General Course of study in preference to many other groups of material that might have, in the opinion of many members of the faculty, just as well have been selected. In other words, it seems to me that there should have been a definite reason given why these four subjects were selected above all of the other rich fields in education. This would clear this entire field in the minds of not only the members of the faculty but would also outline for the people in general a definite reason why such courses occupy this distinguished place.

IV. Special Groups.

1. Kindergarten and Primary Grades Course.

We plan to discuss these two groups together since we can assume that because the kindergarten child is advanced into the first grade that there will be many like features that will persist through the two courses.

A. Educational Psychology.

Deals with the significance, prevention and detection of sensory defects, enlarged adenoids.

Treats the following topics: malnutrition; faulty posture and deformities and hygiene of the mouth.

If this is a good course for a Kindergarten teacher why is it not equally valuable for a Primary, Intermediate and Grammar or Country school teacher?

The course seems to have very important elements in it that were overlooked by all but the Kindergarten department. Who was responsible for this course in the groups dealing with public school problems. Kindergarten group? Who was responsible for its being left out in the other groups named?

It seems to your Committee that all grade teachers deal with the problem of child health and therefore if such a course is needed in the Kindergarten group it should also be incorporated in all of the other special groups.

- B. Training School 33 is a course offered for Primary and Kindergarten teachers and is listed in both courses.
- C. Training School 15 seems to be a very important course since it is listed in both groups but is not numbered or

described in the Year Book. The Kindergarten course allows as a substitute Training School 31 but the Primary group requires Training School 15. Again, 15 is scheduled as a 2-hour course in one place and as a 3-hour course in the other.

- D. Training School 5 or 6. Either may be taken in the Kindergarten group and both for the Primary group. Six seems to logically follow five in this plan. All feel, if the courses have been carefully selected, this is a good arrangement.
- E. Training School 32 is offered in both groups as a 2 hour course in the Primary and a 4 hour course in the Kindergarten.
- F. Training School 37 is purely a Kindergarten subject.
- G. Music 3 is planned especially for Kindergarten and Primary grade teachers but only required in the Kindergarten group. Why is this needed in one? Why eliminated from the other group?
- H. Physical Education 6. Singing and Rhythmic Play for children is in the Kindergarten group only. Why not in the Primary group?
- I. Physical Education 7. Folk Dancing. Offered in both groups.
- J. Art. I. Elementary Drawing and Design offered in both groups.
- K. Training School 1. Offered in the Primary group. Why not in the Kindergarten group?
- L. Training School 3. Elementary school supervision might best be as far as we know now in the Primary course.
- M. Art 13. Blackboard Drawing offered in the Primary group only.
- N. Zoology 5. Bird study offered only in the Primary Group. Why not in the Kindergarten group?
- O. English 3. Story Telling. Why not given in the Kindergarten group as well as in the Primary Group?

A rather hurried analysis of these two groups leads us to feel that

1. There has been very little association and discussion of the needs of student teachers in these two departments giving them a scientific back ground from which to begin to plan a course of study.
2. Where required courses are not listed or outlined in the catalog some very poor course making is illustrated.
3. The planning of these courses shows very careless and loose technic in every way.

2. Intermediate and Grammar Grade Course.

- A. Training School 1, 7, 8, 9 as listed and recommended fulfill necessary requirements in the opinion of your Committee.
- B. Training School 11 is not in the catalog so listed. Training School 111 may be the course, but it is listed as Senior College course.
- C. Psychology 4. The Psychology of the Elementary School subjects should be a very profitable course for this group and as far as I can see for any group in the College. But who would be able to give such a course?
- D. Physical Education Courses 5 and 7 are listed but 8 and 12 are not in the catalog.
- E. Select 12 hours from the following: Geography 12; Reading 9; Mathematics 8; History 13; Nature Study, Agriculture or Zoology 5; Civics; Music 2; Public Speaking or Story Telling 13.

While a number of these courses belong to the required group as outlined in the General Course we can expect if there is to be any logical scheme in the making of a course of study that these same courses will appear in a course that has to furnish the same type of teacher, but we can see no reason for arranging this group in such a way that it is possible to take ten hours of this work outside of this required group of the General Course.

3. County Schools Course.

This course exhibits some very interesting points that we hope to bring out in our discussion.

- A. Education 25. Rural School Curriculum and the Community seems to be a very interesting course but one would feel that the problems discussed largely belong to advanced or mature people.
- B. Education 6. County School Methods. A very interesting course is here outlined.
- C. The next group includes Nature Study, Teaching of Geography, Arithmetic, History and Reading, as outlined in the General Course.
- D. Agriculture 4 hours. No hint as to the Agriculture that might be needed and no plan given us that we might select the proper course.
- E. Public Hygiene 5. Why public hygiene in place of individual hygiene? Would not public hygiene be more important in congested districts? Are the parents of children in the country better able to direct their personal hygiene than those in the city?
- F. Elementary Woodwork and Household Science and Art are just a slight suggestion of what might be done for the rural schools along these lines. Courses should be more definitely defined and arranged to function in a definite way in rural life.

What is the use? We could go on analyzing and suggesting changes and corrections in the entire group of special courses but in the end

we would possibly be no further along than we now are. The only, to my mind, possible method of solution of the problem is to find out the possible community needs from the standpoint of individuals and individuals as members of a social group. The demands in general vary in various communities of the United States. We can not expect agricultural problems in Colorado to be similar to agricultural conditions, in many ways, in some of our southern states.

Many of our courses of study seem to be organized fairly well from the standpoint of an individual as a member of a social group, while no attention has been paid to individuals who are members of that social group and are going to function as valuable members of society; that is, those who help in the struggle for the uplift of mankind; they are going to be just self-supporting or a drag and a load for those who are trying to help make the world a better place in which to live.

Individual needs and demands are really very important in the organization of courses of study for communities. If the individual and the individual as a member of society are important viewpoints in the organization of courses of study for communities it should be doubly true regarding the courses of study that are outlined to prepare teachers to teach under somewhat special conditions. Often individual feelings and likes—I mean from the standpoint of the teachers in charge—are responsible for much of the material in the course. Talking over a Smith-Hughes course of study with a representative of the department at Washington, the representative suggested that history was needed in the course. To my interrogation "why?" she could only say, "Because I like it." I am inclined to think that much of the materials of courses of study are worked out in some similar sort of way.

We need to find out, not to guess or depend on feelings in our solution of problem needs in Teachers College, especially since they reflect on down through our public schools. Only when people in educational directive positions realize that organized and planned doing is as essential in the lives of children and teachers of children as so called academic instruction will we begin to see light in the organization of public school and teachers training courses of study.

DEPARTMENTAL ORGANIZATION OF SPECIAL SUBJECTS

By S. M. HADDEN

What is the effect of departmental organization based wholly on subject matter?

The College recognizes value of organization of a department or departments that have a technique peculiar to themselves. It does not allow this fact to obscure the less obvious but (for the purpose of education) more significant fact that all the fields classed as special, meaning possibly, those that have some vocational viewpoint, are:

1. Based upon certain fundamental arts and sciences to an extent rarely appreciated by the uninitiated.
2. Reach their ends by similar methods of work; and
3. Are to an ever increasing degree joined in practice, so that they are best acquired in an organization which keeps always in view their connections, displays their related applications as an organic whole never detached from community needs, but admit of varied emphasis according to community demands—all contributing where they can to the field of public education in so far as they relate to the fundamental activities of communities.

All special subjects must take into account two viewpoints or centers of interest:

1. (a) The schools in which they attempt to comply with the educational demands of an organized educational system; (b) the public demands in that they try to help the student to meet practical demands as they appear.
2. In many of our schools there is a definite demand for teachers who can teach two, three, and sometimes more of these special lines.

There should be within the institution as a whole a further unit capable of making a varied emphasis according to school, which means community needs. Otherwise there is a certain failure to give maximum service.

Any organization should look only to increased efficiency in the graduates of any group of related subjects. It in no way narrows the scope of any teachers in coordinate fields. What such an organization does is to insure that each shall have the full advantage of the constant reminder of the relation of this special subject to other subjects. At times we may feel that no relations exist, but this is because each special subject has, as it were, tried to go it alone and has never tried to find correlated and enriching factors in other so-called special subjects.

In other words, present organization of special subjects is an evolution from our experiences in an effort to meet the needs of the times most effectively. It is a product of our school experiences, with the relative inefficiency of the specialized lines, isolated from related lines

of work. It is not far from the old cry "Art for Art's sake," an impossible and perfectly ridiculous conclusion in this day of modern art applications. It is only, when the constructive features of other lines of work enter, that the art, or any other special field of work reaches its greatest influence for good.

Organization of Vocational work, or as some are pleased to call the field, special subjects, is not a matter of chance or opinion. It is not haphazard or accidental, but is a deliberately planned and calculated *adjustment* to the present educational situation. Briefly here we will state the underlying principles upon which it rests.

As a Teachers College has the function of training teachers for public schools it has inevitably the function of leadership in the educational systems. Among the duties implied in this function is that of analyzing the educational situation, determining the points of greatest weakness, needs and the like, and then in response to these, organizing its courses in such a way as to keep the public schools abreast of the best thought and practices of the time. One of the standing criticisms of the public school system is that it is not practical, that it is detached from life; that it does not fit pupils for the problems they must face. Modern educators freely admit the justice of this criticism, which has come mostly from laymen in business, on the farm or in the professions. Modern education has recognized in many ways that a part of this detachment of the schools from life conditions has been due to a failure to recognize the relationship of the various lines of school activities to each other. When each line of activity has tended to develop as an end in itself the tendency is to forget that it exists only for the improvement of life.

What is called the modern functional view of the school subjects definitely insists upon the full recognition of the interrelations of these school subjects.

The history of the teaching of special subjects would cast some interesting light upon the development of the interrelation of subjects in these fields. Witness the introduction of drawing in the schools of Massachusetts, the refraction from its original purpose when it became Fine Art or Aesthetic Art. "Art for Art's sake" was the slogan until the rise of the idea of Industrial Arts courses, in which eventually the two related fields were unified and applied to various phases of industry.

Without the refining influences of other related subjects, without the broadening of the subject's educational horizon with related materials, our special subjects courses become mere instruments of formal discipline. All of the illustrations we could enumerate, if the space permitted, would illustrate the tendency toward aloofness and a corresponding lack of service when they are separated in the schools. Nothing has, historically, even approached its maximum service until it was co-ordinated with its companion activities.

It is a matter of common knowledge that there is not and never was, a large growth or extension of any special line until there was a unifying organization. It is highly desirable then that there be a unifying force in related special subjects. At first thought special subjects that seem to be far removed from each other after a careful analysis become related in a very interesting way.

There is a two fold gain in efficiency in such an organization. It insures that each expert in the fields shall have the full stimulus of constant touch with experts, working towards the same large ends, applying different technic but employing the same *methods* of work. In a word, it insures a functional or utilitarian view of subject matter and course.

SUPERVISION COMPARATIVE

By S. M. HADDEN

V. Does the supervision of these special subjects in the Training School by the teachers of them result in better courses for normal school students than these students get in so called regular subjects? (Compare the serviceability of the courses in music and arithmetic.)

This is rather an interesting question, but unfortunately the implication regarding work in Arithmetic and Music is bad. It seems to be assumed that Arithmetic is an essential for all, and that Music is one of those fringe subjects that may or may not occupy a place in the development of an individual's needed educational experiences, depending largely on the amount of time that the school system may have to give to this type of training. In general, it is assumed that Arithmetic, years of it, is necessary in the training of an individual. That an individual can not be an efficient member of society unless he has devoted a large amount of time to this type of work is the assumption.

This premise in general seems to be false; the type of training given in Arithmetic by the ordinary grade teacher is far from the mark, as far as the arithmetics from which they get their materials.

In the first place, the new book on Arithmetic is generally a rehash of the old one and has no great value as a guide to our training of the children in Mathematics since the problems in general are not of a type to explain the value of mathematical work in public or private citizenship activities. As a rule they are never taught the simple problems of keeping accounts, buying, selling, etc. They do not know how to deposit or draw out money from a bank. They know little about such things as exchange, safe methods of carrying money or the equivalent of money when traveling, safety deposit, counting change, etc. About nine-tenths of students with whom I have carried on the experiment are not able to return the proper amount of change when I make a purchase, say of two dollars and thirty-seven cents and want my change. Generally they take a piece of paper and make the computations. This, if investigations were made, I am quite sure would also be true regarding most of the fairly experienced teachers out in real teaching life. They do not know the fundamentals necessary in mathematics where they touch *real life*.

The modern movement seems to be to make the mathematics real, make it touch all the phases of actual life. We believe with the tests, so called in Arithmetic, with the poorly selected materials of the grade text book, with a teacher that is ordinarily just a general teacher, that there is no field of public school education where the eight years of arithmetic is taught, and this suggestion is general, with any educational viewpoint that looks to a better understanding of simple business problems that should be every day experiences for every boy and girl.

We assume that students must dig through the so-called arithmetic course in the grade school under inexperienced teachers as far as applications of the underlying principles are concerned to real life. We assume that an individual can do almost nothing in after life of an advanced nature unless he take a further course in algebra and geometry, even if investigations have largely shown that practically all of

the students never use algebra outside of the schoolroom and that the demonstration of the various perfectly obvious problems in geometry are learned as we learn a poem.

The teachers who are teaching in our elementary, high schools, and higher institutions of learning know almost nothing of the mathematical computing tables, nothing of the precision instruments and their applications to life problems. They hardly know the name of simple measuring tools and instruments and the short cuts they make possible in actual life. For example the slide rule is an instrument in education generally only associated with engineering schools, and I suppose I am putting it high when I say one out of one hundred teachers in elementary schools who teach arithmetic know anything at all about such a tool, and a little higher proportion among high school and College professors. Still records of people in occupations show that men who have only completed the third grade are earning their living by using slide rules.

In general, then, we are not inclined to think that the teaching of arithmetic in our elementary schools is anything of which we should be particularly proud.

Our teachers of arithmetic, we might say in a general way, while they know mathematics as it is taught they do not know the application of mathematical principles to every-day needs. They do not associate with the people who, in public life activities, are accustomed to use mathematical formula and data evolved from mathematical formula. They do not know the tools and implements that apply mathematical principles they have been accustomed to teach as abstract things.

Arithmetic, so called (we prefer the word mathematics for our work with children), has in our schools become a thing to learn without any of the uplifting elements that come with its association with modern mathematical equipment that is perfectly clear and simple to even the very young child.

If we would eliminate the almost impossible applications found in all arithmetics and when possible make our arithmetic bubble with new life by bringing in live problems it would be in a class with the music taught by our special teachers of music.

A word now about our music teachers. In general they are musicians being able to do creditable work in some field of music. Only once in my career have I known of a piano teacher who could not play on a piano at all. Of course her teaching days were short and she was not a success in any phase of the teaching.

Again they are interested in the musical work of the community, have their pupils interested in musical organizations, conduct courses, organize choral societies, conduct orchestras, bring into the community festivals, performers, influence the community for better music in churches and various other organizations. They teach the children about great music, give them sufficient technic so they can understand and appreciate great music, which can be done without a great technical knowledge. They pick out from the musical materials of the ages that which has endured and is worth while, and give it to the children. The children are not held down to the technic of music but are allowed to spread their wings and try to appreciate and perform great worth while musical numbers. The technic in music is as great and varied as in mathematics but the special music teacher teaches applied music just as the mathematics teacher should teach applied mathematics and should be a specialist in such applied phases if we want real worth-while arithmetic for our children. In our own Training School our music is

very superior to music in public schools and also our mathematics for children in our grade school is very superior to mathematics work in public schools.

This is no reflection on individuals, for in general our arithmetic teachers have a hundred and one other duties, and arithmetic is only an incident in the day's work. In the case of the special music teacher, music and better music is his or her entire aim at all times. The one is a specialist and the other a general teacher, and we are rapidly reaching the point where we need no general teachers in our public schools.

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