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WILLIAM JOHN COOPER, Commissioner

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CURRENT PRACTICES IN THE CONSTRUCTION OF STATE COURSES OF STUDY

By

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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
OFFICE OF EDUCATION,
Washington, April 24, 1931.

SIR: Within the present decade we shall commemorate the centenary of the establishment of State departments of education in the United States. In this move, as in so many other school reforms, Massachusetts took the lead under the guidance of Horace Mann. Although every State now has such a department, there is great variation in the character of work done and the responsibilities discharged. There are many indications, however, of a tendency for all these departments to lead the teaching profession in establishing vital systems of education on a state-wide basis. Inherent in such a professional program are the study and measurement of children's capacities and some control of their environmental experiences. The latter, so far as the school is concerned, are commonly set forth in a book of directions to teachers called the course of study. For several months Miss Langvick has been engaged in collecting State courses of study and in analyzing them. We find that practices vary, as might be expected.

It is possible that some of the States may obtain better results than the others. It is likely that in all States present techniques will be refined and improved. That each State may be made fully aware of what the others have been doing and of how they have been doing it, the manuscript herewith transmitted has been written.

I respectfully recommend its publication as a bulletin of the Office of Education.

Respectfully submitted.

WM. JOHN COOPER,
Commissioner.

The SECRETARY OF THE INTERIOR.

INTRODUCTORY STATEMENT

Courses of study have been revised in whole or in part in 31 States within the period of 1928–1930. Eight of the States have determined upon a policy of continuous curriculum construction. This focusing of attention upon such a vital and determining factor in the educational process is significant. Whether the course of study has been revised to fit the adoption of a new textbook, to incorporate new legislative requirements, to utilize the findings of scientific research, or has been reconstructed to embody a broader conception of education, efforts to facilitate the educational progress of children and to evolve constructive educational practices are evident.

The purpose of this study is to analyze current practices in the construction of State courses of study. Available State courses of study, reports of survey commissions and educational officials, and other State educational publications have been examined to discover the problems considered significant by State educational officials and the methods of procedure which they have employed.

The reports indicate that in a few of the States preliminary to curriculum revision the causes of pupil failure have been analyzed, and data for desirable changes in time allotment, in grade placement of subject matter, and basis criteria for determining promotion have been sought.

Among the problems of curriculum construction which are considered in the publications analyzed are: Should the State department of education publish state courses of study? If so, will one course of study fit the different types of school organization represented in the State? Should programs for curriculum revision be continuous? Should they precede textbook selections? Who should construct State courses of study? How should the work of state-wide curriculum commissions be coordinated and integrated?

CURRENT PRACTICES IN THE CONSTRUCTION OF STATE COURSES OF STUDY

Chapter I

Legal Provisions which Affect Curriculum Construction

Legislation with respect to the curriculum has been enacted in each of the States. These laws place upon the curriculum makers certain requirements which determine to a degree the selection and organization of subject matter, time distribution, and methods of classroom procedure. The laws which have a direct or indirect effect upon the construction of the curriculum may be classified as laws which (1) provide for continuity in curriculum construction, (2) specify the subject matter to be taught and certain aspects of the organization of content, and (3) require State and county or district adoption of textbooks.

WHAT CURRICULUM REQUIREMENTS ARE PRESCRIBED BY LAW?

A State curriculum commission was created by law in the State of California. The law designates that the personnel of the State curriculum commission shall consist of the superintendent of public instruction and 10 additional appointive members to include at least 1 county superintendent, 1 city superintendent, 1 high-school principal, 1 elementary-school principal, 1 college teacher of education, and 1 class-room teacher.

The statements in relation to State laws [1] which prescribe curriculum content are based upon data in the investigations of Cralle, Flanders, and Lide and in the studies in State educational administration for 1929 by the research division of the National Education Association.

Most of the laws enacted in relation to the subject matter of the curriculum vary in nature from general statements requiring the inclusion of a subject in the curriculum to rather specific details. The number of subjects and activities prescribed ranges from 5 in the State of Arizona to 29 in the State of Wisconsin, according to Lide

[1] The more detailed report is being written as a master's thesis by R. E. Cralle, University of California.
California Curriculum Study, 1926, by Bagley and Kyte.
Legislative Control of the Elementary Curriculum, by J. K. Flanders. Teachers College, Columbia University, Contributions to Education No. 195, 1925.
Legal Basis of the Organization, Support and Control of City Schools, by Edwin S. Lide. (Unpublished doctor's dissertation, department of education, University of Chicago, 1930.)
Studies in State Educational Administration. Research Division, National Education Association, Washington, D. C., December, 1929.

and the report of the research division of the National Education Association. According to Flanders, prescriptions totaling 926 were in force in 1923.

In the study of the evolution of the elementary-school curriculum in California Cralle found that 16 subjects were required by legislative enactment in 1851, that 31 requirements were in force in 1921,[2] and that during the period included in his study, 1851–1925, 53 subjects or topics had been added to the curriculum by law and that 22 had been withdrawn.

The following statements and illustrations will indicate to a degree the range, character, and increase of legislative action with respect to the subject matter of the curriculum.

According to Flanders there were in effect in the several States 304 laws relating to nationalism in 1923. Recent legislation indicates an increase of laws on the teaching of nationalism. Laws requiring the teaching of Federal and State Constitutions were added in the States of North Dakota and Texas in 1929. Laws permitting or requiring the observance of three holidays in Wisconsin and one holiday in each of the States of Delaware, Indiana, and Michigan were enacted in 1929.

Teaching in relation to stimulants and narcotics was mandatory in 43 States in 1923, and in 46 States in 1927. Two more States, Delaware and New Mexico, were added in 1929, making a total of 48. Physical education was required in 25 States in 1923 and in 30 States in 1929.

The fundamental subjects, arithmetic, English, geography, penmanship, reading, and spelling, were required in 36 States in 1923. The States in which no requirement is specified are Arizona, Delaware, Illinois, Michigan, Mississippi, Missouri, Oregon, and West Virginia. The special subjects required in 1923 were agriculture in 19 States, drawing in 10, and music in 8; in 1927 agriculture in 14 States, drawing in 13, and music in 9. Household arts was required in 7 States in both periods.[3] The teaching of art was required only in Pennsylvania.

Some laws relating to religious and ethical subjects were in effect in all States in 1923 except in Connecticut and West Virginia. The teaching of morals was required in 7 States and manners in 8 States. The teaching of sectarian doctrines is expressly forbidden in approximately 40 States. According to Keesecker[4] reading of the Bible is required in 11 States, permitted in 5 States, and generally considered as permissible in 20 States. In the 12 remaining States Bible reading is generally regarded as unlawful.

[2] The number of subjects was reduced to 12 in 1925.

[3] Iowa designated that domestic science be taught except in rural schools.

[4] Legal Status of Bible Reading and Religious Instruction in Public Schools. By Ward W. Keesecker. Office of Education Bulletin, 1930, No. 14.

In Tennessee the following law was enacted in 1925: [5]

> It shall be unlawful for any teacher in any of the universities, normals and all other public schools of the State which are supported in whole or in part by the public-school funds of the State, to teach any theory that denies the story of the divine creation of man as taught in the Bible and to teach instead that man has descended from a lower order of animals.

Arkansas, Florida, and Mississippi have similar laws.

It is designated by law that the books or bulletins to be used as texts for the prevention of fires were to be prepared by State officials as follows: In Iowa, Kansas, and Ohio by the State fire marshal; in Montana by the commissioner of insurance; in Nebraska by the deputy fire commissioner and the superintendent of public instruction; in Oregon by the superintendent of public instruction; and in Pennsylvania the law stated that "Department of state police in consultation with the superintendent of public instruction shall prepare books of instruction." In Montana, Ohio, and Oregon the content was to be conveniently arranged in chapters or lessons sufficient in number "to provide a different chapter or lesson for each week of the maximum school year, one of such lessons to be read by the teacher each week."

Flanders says: "The legal provisions * * * illustrate * * * a characteristic which is common to much of the legislation affecting the curriculum, namely, a tacit disregard of the laws of learning and an implicit faith in the efficacy for character formation of mere exposure to ideas."

Thirteen States had specific time requirements ranging from one hour to two and one-half hours per week in the study of health and prohibition in 1923. In California one-half of the school day is assigned to the study of the fundamental subjects.

The following tables present a recent summary of the subjects and activities of the curriculum required by legislation.[6]

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[5] Ch. 27, Public Acts of Tennessee, 1925.

[6] Legal Basis of the Organization, Support, and Control of City Schools, by Edwin S. Lide, pp. 149 and 155. (Unpublished doctor's dissertation, department of education, University of Chicago, 1930.)

TABLE 1.—*Activities required by legislative authority*

State	Arbor day	Bird day	Dental inspection	Display of flag	Fire drill	Library	Medical inspection	Playgrounds	Prominent birthdays	Temperance day	Total
1	2	3	4	5	6	7	8	9	10	11	12
Alabama	x			x						x	3
Arizona				x							1
Arkansas	x			x					x		3
California	x	x		x	x		x		x		6
Colorado	x			x			x		x		4
Connecticut	x	x		x	x		x		x		6
Delaware				x						x	2
Florida					x		x				2
Georgia	x	x							x	x	4
Idaho	x			x			x				3
Illinois	x	x		x							3
Indiana	x										1
Iowa				x	x				x		3
Kansas			[1] x	x	x				x	x	5
Kentucky										x	1
Louisiana		x							x		2
Maine				x			x		x	x	4
Maryland	x								x		2
Massachusetts	x	x		x			x		x		5
Michigan				x	x		x		x		4
Minnesota				x					x	x	3
Mississippi	x			x			x		x		4
Missouri			x				x			x	3
Montana	x			x	x				x		4
Nebraska				x	x		x				3
Nevada	x			x	x		x		x	x	6
New Hampshire				x			x		x		3
New Jersey	x			x	x		x		x		5
New Mexico	x			x							2
New York	x			x	x		x		x		5
North Carolina	x				x		x		x	x	5
North Dakota				x	x		x		x	x	5
Ohio	x			x	x		x		x	x	6
Oklahoma	x			x				[1] x	x		4
Oregon	x			x	x		x		x	x	6
Pennsylvania				x	x		x				3
Rhode Island	x			x	x		x		x		5
South Carolina	x				x				x	x	4
South Dakota				x					x	x	3
Tennessee	x	x		x	x		x			x	6
Texas				x							1
Utah	x	x		x			x				4
Vermont				x	x		x		x		4
Virginia				x							1
Washington				x	x				x	x	4
West Virginia			x	x	x		x		x		5
Wisconsin				x	x	[1] x		[1] x	x	x	6
Wyoming	x			x			x				3
Total	26	8	3	39	23	1	26	2	31	18	177

[1] Upon application specified number.
[2] On majority vote electors.

TABLE 2.—*Subjects required by legislative authority*

States	Agriculture	Algebra	Arithmetic	Bible	Citizenship	Civil government	Composition	Constitution [1]	Domestic science	Drawing	Elementary science	Forestry	Geography	Grammar	Health	History (State) [1]	History (United States)	Humane treatment of animals [1]	Hygiene and sanitation	Industrial work	Language	Literature	Manual training	Morals	Music	Nature of alcoholic drinks [1]	Physiology and hygiene	Physical training	Preservation of birds and game [1]	Prevention of communicable diseases	Reading	Safety [1]	Spanish	Spelling	Thrift [1]	Writing	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Alabama			x	x			x	x			x		x			x	x	x	x		x		x			x		x		x	x			x		x	18
Arizona					x			x	x														x			x											4
Arkansas	x	x	x	x	x	x			x				x	x		x	x				x			x		x	x				x			x		x	17
California			x		x			x		x			x		x	x	x	x			x			x	x	x					x			x	x	x	18
Colorado						x		x								x										x	x										5
Connecticut			x		x						x		x	x	x		x	x					x			x	x	x		x	x			x		x	16
Delaware				x				x																		x											2
Florida	x		x	x	x	x	x	x			x		x	x			x	x						x		x					x			x	x		17
Georgia	x		x	x	x	x	x	x					x	x			x									x	x	x			x			x		x	16
Idaho			x	x	x			x						x	x		x									x	x				x			x		x	12
Illinois								x							x			x						x		x	x	x									7
Indiana			x					x					x	x			x									x	x	x			x			x		x	11
Iowa	x		x	x		x		x	x				x	x	x		x						x		x	x	x	x			x			x		x	18
Kansas			x		x			x					x	x		x	x									x	x				x			x		x	12
Kentucky			x	x		x	x	x					x	x	x	x	x	x							x	x	x	x			x			x	x	x	[2] 19
Louisiana	x		x		x			x	x	x			x	x	x		x	x								x					x			x		x	15
Maine			x	x		x		x					x				x	x	x		x			x		x	x	x			x					x	15
Maryland			x		x		x						x	x	x	x	x		x		x			x		x		x			x			x		x	16
Massachusetts			x	x	x			x	x	x			x	x			x				x		x	x		x	x			x	x			x		x	18
Michigan						x		x										x								x	x	x		x							7
Minnesota								x							x									x		x	x										5
Mississippi	x	x	x			x	x				x		x	x		x	x					x	x			x	x	x		x	x			x			18
Missouri								x									x									x	x			x							5
Montana	x		x			x							x	x		x	x							x		x	x	x		x	x			x		x	15
Nebraska					x	x		x									x							x		x	x										7
Nevada			x		x	x		x		x			x	x		x	x			x					x	x	x	x	x		x			x	x	x	19
New Hampshire			x			x		x		x			x	x	x	x		x							x	x	x	x		x	x			x		x	17
New Jersey			x	x	x			x					x	x												x	x	x			x			x		x	12
New Mexico			x			x		x	x	x			x	x	x	x	x			x	x		x	x	x	x	x	x			x		x	x		x	22
New York			x		x		x						x	x	x		x	x								x	x	x			x			x		x	14
North Carolina	x		x		x		x			x			x	x	x	x	x				x					x					x			x		x	15

[1] To be taught in connection with other subjects.
[2] In addition, the Kentucky Legislature enacted in 1928 that public speaking, debating, and parliamentary law shall be taught in grades 7 to 12.

TABLE 2.—*Subjects required by legislative authority*—Continued

States	Agriculture	Algebra	Arithmetic	Bible	Citizenship	Civil government	Composition	Constitution	Domestic science	Drawing	Elementary science	Forestry	Geography	Grammar	Health	History (State)	History (United States)	Humane treatment of animals	Hygiene and sanitation	Industrial work	Language	Literature	Manual training	Morals	Music	Nature of alcoholic drinks	Physiology and hygiene	Physical training	Preservation of birds and game	Prevention of communicable diseases	Reading	Safety	Spanish	Spelling	Thrift	Writing	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
North Dakota	x		x			x				x			x	x			x	x			x					x	x	x		x	x			x		x	17
Ohio			x		x	x	x	x					x	x			x				x			x		x	x	x			x	x		x	x	x	18
Oklahoma	x		x					x	x				x	x			x	x						x		x	x	x			x			x		x	15
Oregon								x									x	x								x	x	x									6
Pennsylvania			x	x	x	x	x	x		x			x	x	x	x	x	x							x	x	x	x		x	x	x		x		x	22
Rhode Island			x		x	x		x					x			x	x							x		x	x	x			x					x	13
South Carolina	x	x	x		x			x					x	x		x	x					x		x		x	x	x			x			x		x	17
South Dakota			x		x			x		x			x	x		x	x	x			x			x	x	x	x	x			x			x		x	18
Tennessee	x		x	x	x			x		x		x	x	x		x	x		[illegible]						x	x		x			x			x		x	18
Texas			x		x	x	x						x	x		x	x	x								x	x				x			x		x	14
Utah								x							x									x		x	x			x							6
Vermont	x		x		x			x		x			x	x		x	x							x		x	x				x			x		x	15
Virginia			x		x	x		x		x			x	x	x	x	x									x	x	x			x			x		x	16
Washington			x										x	x			x	x						x		x	x	x			x			x		x	12
West Virginia						x		x									x									x											4
Wisconsin	x		x		x	x	x						x	x	x	x	x	x						x		x	x	x		x	x	x		x		x	20
Wyoming								x										x								x	x					x					5
Total	14	3	36	13	26	22	12	37	7	13	4	1	35	32	17	22	38	20	4	2	11	2	7	20	9	46	38	29	2	12	36	4	1	34	5	34	648

In the study of the development of legislation with respect to the elementary-school subjects Cralle says in effect that social, economic, vocational, and civic needs found expression in early legislation in the State of California. For example, the need of assimilating native and foreign-born citizens unfamiliar with American institutions and the English language led to the requirement of the teaching of the Constitution of the United States and of the State of California in 1851. He writes: "Subjects which rightfully belonged in secondary or higher schools—astronomy, chemistry, and the like—were added to the list of the elementary-school subjects because there were no secondary schools," and that "when insect pests had first begun to make serious inroads into the California crops, 'practical entomology' was added to the list of requirements. This highly technical subject, far beyond the comprehension of the children who were expected to study it, remained a requirement for six years." Cralle concludes as follows:

> Representatives of the educational groups have rarely influenced legislators in the making of requirements affecting the curriculum of the elementary schools. The group of 16 subjects listed in the law of 1851 was prescribed as a result of influential work of pioneer American educators in California. * * * In the 1925 revision of requirements the legislative representatives, the lay public, and the professional educators worked together to bring about the very extensive reorganisation of curriculum requirements. For a period of almost 75 years we have to seek for other sources of influence responsible for the changes in the requirements.

Cralle further says: "A number of subjects have been added to the list or withdrawn therefrom because of the pressure of organized minorities."

The report of the Florida survey [7] includes the following statements:

> It is noteworthy that in recent years the legislatures in Florida have assumed this most important responsibility for the choice of subjects that must be taught in the elementary schools. Acts have been adopted making the teaching of agriculture and civil government, humane treatment of animals, the harmful effects of alcoholic beverages and narcotics, the observation of Mother's Day, and the reading of the Bible without sectarian comment compulsory in the schools. * * *
>
> It is agreed by all who have given serious thought to the matter of elementary education that it is unwise to add new subjects to the already overcrowded curriculum. The attempt among educational leaders everywhere is in the direction of combining and fusing subjects.
>
> The legislature should provide for a competent State board of education and leave to this body all matters relating to the selection of subject matter and method of teaching in the elementary schools. This State board will of necessity employ those who are trained in the elementary-school work and who can be relied upon to achieve the purposes that the State has set.

[7] Educational Commission and Survey Staff. Report to the Florida State Legislature, 1929, p. 246.

HOW DOES STATE ADOPTION OF TEXTBOOKS AFFECT CURRICULUM REVISION?

State-wide adoption of textbooks is required in 26 States. The State printing of textbooks is required in the States of California and Kansas. The practice of uniform selection of textbooks throughout the State has exercised a dominant influence upon the curriculum. This influence may seriously affect the educational progress of children (1) by limiting the source of selective material, (2) by the legal determination of the length of time for which a given book is educationally useful, (3) by the legal designation of the personnel which is to make the selection of textbooks.

According to Tidwell [8] the term of adoption of textbooks ranges as follows:

Term of adoption	Number of States	Term of adoption	Number of States
Indefinite	10	6 years	9
3 years	2	8 years	2
4 years	3	10 years	1
5 years	21		

New methods of teaching and new materials of instruction are constantly being developed. In States in which terms of adoption extend over several years, the use and purchase of new copies of a given textbook may be required beyond the time when books embodying newer material and methods of instruction are available, as illustrated in the report of the California curriculum study.

When these spelling books were adopted almost a decade ago they represented one of the most progressive organizations of spelling materials developed up to that time. The many scientific investigations regarding spelling materials which have been carried on since 1918, however, make necessary a marked revision of these textbooks.[9]

In his discussion of the school textbook problem Cubberley says:[10]

Still worse, however, is the limitation of the schools of a State, under State publication, to one text in each subject, whereas all educational considerations point to the desirability of the local adoption of multiple lists.

It is immaterial whether 1,000 books of one kind are purchased by a school system or 250 books each of four kinds, as far as cost is concerned, while there are many advantages in having a variety of tools with which to work. Neither should the supervisory unit be required to adopt its textbooks for a definite number of years. The usable life of different kinds of textbooks varies, as does the frequency with which new and better books appear. A textbook should be used until it is worn out, be it three years or six, or until a much better book on the same subject appears.

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[8] State Control of Textbooks, by C. J. Tidwell, p. 20.

[9] The California Curriculum Study, p. 20.

[10] The School Textbook Problem, by Ellwood P. Cubberley. Educational Progress, March, 1927; pp. 20-21, 26.

In some schools, books, maps, pictures, and raw materials recognized as valuable sources of subject matter are furnished for school children and are made accessible through the extension of library facilities, the use of excursions, and other methods of educational procedure. Where the use of these resources is limited the textbook is the main source of subject matter.

State publication of supplementary textbooks limits the source of selection according to the State superintendent of public instruction of California:[11]

> Among the outstanding publishers of educational material many will not submit bids when their plates must be leased. The schools would be denied the publications of these firms under a plan of uniformity.
>
> The publisher serves as an agency for the preliminary selection of material. A reputable publisher stated that of 100 manuscripts submitted only 5 were accepted for publication. Of these five only one was destined for success. Under a system of State publication of supplementary books, there would be a decrease in the list of available books because publishers would lose the stimulation which producing a successful book is to publication. Available sources of material being cut off, the schools would suffer for needed educational equipment.
>
> The experience of this publishing house makes it apparent that a book can not be ordered like a suit from a tailor. Since only one book in a hundred is successful, the possibility of local authorship resulting in effective materials is negligible.

BY WHOM ARE TEXTBOOKS SELECTED FOR STATE ADOPTION?

A study of State laws was made to discover by whom the textbooks for use in the elementary schools were to be selected. In 11 of the 25 States in which State uniformity of textbooks is required the State board of education is authorized by law to make the selection. In the other States special textbook commissions are appointed or elected to adopt textbooks for use in the elementary schools.

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[11] Biennial Report of the State Department of Education, for the school years ending June 30, 1927, and June 30, 1928. Pt. 1, p. 87.

TABLE. 3.—*The composition of State boards for the selection of textbooks, including term of adoption*

State	Title	Recommended	Selected	Personnel	Appointed by—		Term of adoption
					Governor	State superintendent	
1	2	3	4	5	6	7	8
Alabama	Textbook commission	x		State superintendent ex officio chairman; 7 well-known educators engaged in public school work, appointed by the State board of education.		x	6 years.
	Textbook purchasing board		x	Governor, State superintendent, and president of State board of administration.			
Arizona	State board of education		x	8 members—governor, State superintendent, president of university, principals of 2 State normal schools; and 1 city superintendent, 1 high school principal, 1 county superintendent, appointed by the governor.			5 years.
Arkansas	Textbook commission		x	9 members—governor, State superintendent, 4 teachers of recognized ability, 3 business men, one of whom must be a lawyer.	x		6 years.
California	State board of education [1]		x	10 members	x		4 to 8 years.
	State curriculum commission	x		11 members, including the State superintendent, 1 county superintendent, 1 city superintendent, 1 high-school principal, 1 elementary-school principal, 1 college teacher of education, 1 classroom teacher.		[2] x	
Delaware	State board of education	x		4 citizens	x		4 years.
Florida	Textbook commission		x	7 members—the board of commissioners of State institutions consisting of the governor, the secretary of State, the attorney general, the treasurer, the comptroller, the commisioner of agriculture, and the State superintendent of public instruction.	x		8 years.
Georgia	State board of education subcommission [3].		x	Governor and State superintendent, 4 members, 3 of whom shall be men of practical experience in education.	x		5 years.
Idaho	State board of education	x		State superintendent and five citizens	x		
Indiana	do		x	State superintendent of public instruction; presidents of State university, of Purdue, and of the normal school. Six citizens—3 to be actively engaged in educational work, 1 of whom shall be a county superintendent; 2 persons actively interested in and of known sympathy with vocational education, 1 of whom shall be a representative of employees and 1 of employer. Three superintendents of schools of cities having the largest enumeration of children for school purposes.	x		5 years.
Kansas	State school book commission		x	State superintendent; president of Kansas State teachers college of Emporia; president of State agricultural college; State printer; 1 person elected by members of State board of agriculture from their own membership; 2 citizens appointed by governor.			5 years.
Kentucky	Textbook commission		x	Superintendent of public instruction, ex officio member and secretary, and 8 members appointed by the State board of education.	x		10 years.

Louisiana	State board of education		x	3 citizens appointed by the governor, and 8 elected from the 8 congressional districts.			6 years.[1]
Mississippi	State textbook commission			8 educators	x		5 years.
Montana	do		x	7 citizens, 5 of whom shall be actively engaged in public-school work	x		6 years.
Nevada	do		x	Governor, State superintendent, president of State university, 4 citizens actively engaged in school work.	x		4 years.
New Mexico	State board of education		x	Governor and State superintendent; 5 others appointed by governor	x		6 years.
North Carolina	do		x	7 members—governor, lieutenant-governor, secretary of State, treasurer, auditor, superintendent of public instruction, and attorney general.	x		1 to 5 years.
Oklahoma [2]	Textbook commission	x		7 members	([3])	([3])	
	do		x	State superintendent and 6 citizens. One or more of the members shall be women. Four of the six shall have been actively engaged in education in the public schools of the State within 3 years.	x		5 years.[4]
Oregon	State textbook commission		x	5 citizens of recognized scholarship and professional standing who shall have been actively and continuously engaged in teaching or in supervision of schools in this State for the 5 years preceding the date of appointment.	([7])	([7])	6 years.
South Carolina	State board of education		x	Governor, State superintendent, and 7 citizens	x		5 years.[1]
Tennessee	State textbook commission		x	Governor, commissioner of education, and 5 members, 4 of whom must have engaged in school work in this State as teachers, superintendents or supervisors for a period of 5 years next preceding appointment.	x		Do.
Texas	State board of education		x	9 citizens. No member shall be engaged as a professional educator	x		6 years.
Utah	State textbook commission		x	State superintendent; presidents of university and agricultural college; dean of State normal school; 5 citizens, 3 of whom shall be district school superintendents	x		Do.
Virginia	State board of education		x	7 citizens. (Committee for selection, 2 members of the State board of education who are trained educators and the state superintendent.)	x		8 years.
West Virginia	do		x	State superintendent and 6 citizens	x		5 years.

[1] It shall be the duty of any board of education vested with the power of designating textbooks to give preference to any textbook on any given subject written entirely within, compiled, printed, and published in the State of California. Legally the power of selection rests in the State board of education; practically the selection is made by the curriculum commission.

[2] With approval of State board of education.

[3] State board of education determines.

[4] Provided that any book may be changed any time by two-thirds vote of the members of the State board of education.

[5] Appointed by governor and State superintendent.

[6] Books of Oklahoma authors shall have preference, merit and price being equal.

[7] Appointed by State board of education.

The selection of textbooks is regarded as a highly specialized responsibility. In those States in which the personnel of State boards for the adoption of textbooks are designated by law there is no assurance that the members of textbook commissions are by learning or experience qualified for the responsibility which is placed upon them. This situation is illustrated by the law of Florida.[12]

In Florida, authority over textbooks is vested in the board of commissioners of State institutions. A subcommission composed of seven educators recommends to the board of commissioners, but the latter body may disregard such recommendations if it chooses to do so. The board of commissioners of State institutions is composed of six members appointed by the governor. The State superintendent of public instruction is not a member of this board. None of the members is engaged in or professionally trained for educational work. * * *

Just what advantage Florida gains from an 8-year adoption period is not clear. The cost is not less than it would be under a much shorter adoption term. Books are worn out and must be replaced without reference to the adoption period. It is true that the adopting body is relieved of the burden of making new selections to some extent, but it is at the expense of the school children of the State, who are in effect denied the use of improved textbooks which may be published during the life of the long adoption period.

Chapter II

Policies of State Educational Officials with Respect to the Publication and Revision of State Courses of Study

Policies differ with respect to the preparation and publication of State courses of study on the part of educational officials of the various States. This variation in policies is due in part to differences in legal requirements affecting the curriculum, administrative provisions for the supervision of instruction, and the educational philosophies held by the chief administrative officials.

DO ALL STATES ISSUE STATE COURSES OF STUDY?

With the exception of California, Delaware, and Maryland courses of study are published by State departments of education.

The State law of California provides for a State curriculum commission.[1] The policy of the State Curriculum Commission of California is defined as follows:[2]

The function of the curriculum commission being to study problems of courses of study in the schools of the State and having power to recommend to the State board of education the adoption of minimum

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[12] State Control of Textbooks, by Clyde J. Tidwell. Contributions to Education, No. 299, Teachers College, Columbia University, 1928, pp. 64, 66.

[1] Biennial Report of the State Department of Education, June 30, 1927, and June 30, 1928. Pt. I, pp. 43-45.

[2] Bulletin B-2. Tentative Course of Study in Music for Rural Schools. State Department of Education of California.

standards for courses of study in kindergarten, elementary, and secondary schools, it shall be the policy of this commission—

1. To encourage and initiate state-wide curriculum studies in all departments for both elementary and secondary schools.
2. To appoint committees of the commission to review and pass upon all studies and tentative courses presented for the approval of the curriculum commission.
3. To regard all such studies as tentative and subject to later change.
4. To encourage suggestions from teachers in the field as to changes in the suggested studies, these suggestions to be made to the secretary of the commission.
5. To approve of no course of study presented for the approval of the commission without sufficient advance study thereof.

The State Department of Education of Delaware adopted the curriculum for the elementary schools of the State of Minnesota, published in 1928. It has published an outline to supplement this curriculum in response to changes in the adoption of State textbooks.

The policy of the State superintendent of education in Maryland is stated in the following excerpt: [3]

> Maryland has no State course of study. A State department has no laboratory to test out a course of study. *The making of a course of study is one of the most important instruments of county supervision.* At the present time each of the counties is in a different stage of curriculum revision. The State sets up goals of accomplishment in the several subjects which are useful to the counties in developing their local courses. The State department helps and encourages the counties through conferences. Two State-wide conferences and one regional conference are held each year for superintendents and supervisors. Each county has a series of not less than four group meetings for teachers, part of the time of which is devoted to the topic of course of study revision. At these meetings mimeographed course of study material is provided for discussion.

IS CURRICULUM CONSTRUCTION AN INTERMITTENT OR A CONTINUOUS PROCESS?

The educational process is regarded sufficiently dynamic to require a program of continuous reconstruction of the curriculum in the States of California, Indiana, Maryland, Massachusetts, Minnesota, New York, North Carolina, North Dakota, and South Dakota. *

The program of curriculum construction of the State courses of study in California and Indiana precedes the adoption of textbooks which in these States is required by law.[4] This policy permits of the selection of books which may best contribute to the realization of the desired outcomes rather than courses of study which conform to the

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* Data for this State supplied since manuscript was prepared.

[3] Sixty-second Annual Report of the State Board of Education Showing Condition of the Public Schools of Maryland, July 31, 1928, p. 265.

[4] The State Department of Education of California is required by law to print the textbooks for use in the elementary schools and to give preference to California authors.

textbooks selected. The school law of California of 1927, creating a State curriculum commission, states:

> The commission shall recommend to the State board of education specifications for textbooks for uniform use in the schools of the State so that the textbooks adopted shall conform to the minimum standard for courses of study adopted as herein provided.

The introductory paragraph of the report of the elementary curriculum revision in Indiana states:[6]

> In anticipation of the adoption of textbooks in reading, writing, and arithmetic, and the necessity of preparing State courses of study in these fields, a general program of elementary curriculum revision for the State of Indiana was formulated in the fall of 1928.
>
> The guiding principles of elementary curriculum revision formulated for the work indicate plans for a program of continuous construction.
>
> 1. Administrative principles: (*a*) Curriculum construction and revision should be comprehensive and carried on continuously. (*b*) The existence of distinct administrative units or periods in the State public-school system should not be allowed to interrupt the continuity of the curriculum, which should provide an unbroken growth and development for every child.

In a letter to the United States Commissioner of Education, dated May 1, 1929, Burr F. Jones, of the Massachusetts State Department of Education, says:

> This work has already been in progress three years and will doubtless cover a 5-year period before the new courses in the elementary and junior high school field are completed. I anticipate that this work will be to a considerable extent continuous.

In the general statement introductory to The Curriculum for Elementary Schools of Minnesota, 1928, these statements appear:

> The department has fully recognized the fact that besides the need for corrections which would be certain to appear the present era is one of great progress in curriculum making. * * * The policy which it has adopted, therefore, is one of continued effort in the curriculum field. * * *
>
> Nor should this revision be considered otherwise than as a next tentative forward step for keeping the curriculum in harmony with advancing educational practices. A curriculum must always be a growing thing continually in the making if it is to keep pace with the dynamic nature and needs of modern society and contribute to more intelligent and more abundant living.

In Volume I of the Twenty-fourth Annual Report of the University of the State of New York (pp. 23–24), Doctor Graves says:

> To promote all these advanced steps which are being taken toward improving the content and organization of the curriculum, arrangements for a continuous study and careful revision of existing materials have been found essential. * * * The curriculum is constantly becoming obsolete and should be continually in the educational melting pot. * * * In all this investigation objective methods and quantitative measurements have gradually become determining factors for

[6] Guiding Principles of Elementary Curriculum Revision for the State of Indiana. Bulletin 107, State Department of Public Instruction of Indiana.

the selection and organization of materials. A constant and scientific procedure in revision must soon come to be carried on everywhere.

In a letter dated September 26, 1929, A. T. Allen, State superintendent of public instruction of North Carolina, says:

> The matter of curriculum making is a continuous process. Of course, every once in a while we must go to print with something, but before we get it back from the press we are beginning to plan to modify it. It is a continuous matter of study and rearrangement.

The elementary course of study for North Dakota (1929 revision) includes this statement:

> All committees are being continued and will consider such revisions and additions as use of the course makes advisable.

In those States which do not have programs of continuous curriculum construction, and particularly in the States in which a policy for the construction of courses of study in advance of textbook selection is not in operation, curriculum revision is both partial and intermittent.

WHO CONSTRUCT THE STATE COURSES OF STUDY?

State officials no longer limit the entire responsibility for the construction of the curriculum to the members of their own office or assign it to a subject matter or educational specialist. Active cooperation in curriculum construction by all educational agencies in the State is gaining in practice if we may judge by programs of curriculum construction in operation in some of the States and by the personnel of the state-wide committees.

The personnel of state-wide curriculum committees which have recently constructed State courses of study include representatives of educational agencies within each of the States. The relative numbers of representatives distributed among the various agencies indicate that there are differences of opinion as to who may contribute most or should actively participate in the work of curriculum construction.

The State Department of Education of Minnesota places the responsibility of curriculum construction primarily upon its own membership. The largest representative groups participating in curriculum construction in California are supervisors and directors of instruction and classroom teachers; in Iowa, heads of departments, directors, professors of education in universities and colleges, and city and county superintendents of schools; in North Dakota, county superintendents of schools and directors and professors of education; in South Dakota, city and county superintendents of schools, directors and professors of education, and teachers; in West Virginia, teachers in elementary grades and in 1 and 2 room schools, and principals of high schools, elementary, and 2-room rural schools.

The distributions of representative educational agencies in these States are tabulated as follows:*

Minnesota curriculum committees

Members of the State department of education	12
President, State teachers' college	1
Professors in State teachers' colleges	9
City school superintendents	6
Principal, city school	1
Elementary supervisors	4
	33

A permanent curriculum committee is responsible for curriculum construction in the State of Minnesota, as indicated in the preface to the Curriculum for Elementary Schools, June, 1928.[6]

The committees as organized in the preparation of the original curriculum, with only necessary changes in personnel, have been kept intact. They have continued their study and have conferred from time to time concerning the problems involved, taking advantage of whatever new light has appeared.

California curriculum committees

Member of State department of education	1
Professors of education	5
Supervisors and directors of instruction	38
School principals	2
Classroom teachers	76
	122

Iowa curriculum committees

Member of the State department of education	1
Heads of departments, directors, and professors of education in universities and colleges	42
Directors of instruction and supervisors of special subjects	10
Supervisors, elementary education	6
City superintendents of schools	22
County superintendents of schools	13
Principals of high schools and one consolidated school	6
Principal, elementary school	1
Teachers, senior high school	3
Teachers, elementary school [7]	6
Member of State library commission	1
Member of tuberculosis association	1
Member of State board of health	1
	113

* For the South Dakota curriculum committee, see p. 47, footnote.

[6] Curriculum for Elementary Schools. State of Minnesota, June, 1928, p. 3 (preface).

[7] With one exception these teachers were employed in the State university elementary school.

North Dakota curriculum committee

Members of State department of education	3
Directors and professors of education	10
Specialists in subject matter	9
County superintendents of schools	11
City superintendent of school	1
Senior high school principal	1
Senior high school teachers	3
Elementary-school principals	3
Supervisor of music	1
Elementary teachers	7
Elementary teachers (rural)	2
Laymen	3
	54

West Virginia curriculum committee

Professional advisor	1
Members of State department of education	7
Members of State and county department of health	3
Secretary State education association	1
President State normal school	1
Professors of education and of special subjects	15
City, county, and district superintendents	29
Principals, high schools, elementary, and 2-room rural schools	79
Teachers in high schools	6
Teachers in elementary grades	79
Teachers in 1 and 2 room schools	61
Teachers (grade of work not designated)	34
State agent (title not designated)	1
Supervisors and specialists in subject-matter fields	13
	330

Participation by the classroom teachers is recognized in programs of curriculum construction which include representatives of educational agencies of the State. In the State of Louisiana all teachers were given opportunity to cooperate in the construction of courses of study in arithmetic and language. In the State of California 76, or 62 per cent, of a curriculum committee of 122 members were classroom teachers in the elementary grades. In Iowa 6, or 4 per cent, of 112 members; in North Dakota 9, or 16⅔ per cent, of 54 members; and in West Virginia 140, or 42 per cent, of 330 members were teaching in the elementary school.

In a letter to a group invited to serve on a "steering" committee for a program of curriculum construction in Florida the State superintendent specifies that the personnel of the subcommittees be "persons actually engaged in supervision or classroom work."[1]

[1] Journal of the Florida Educational Association, October, 1929, p. 13.

ARE VARYING NEEDS OF PUPILS MET IN CONTENT AND ORGANIZATION OF THE CURRICULUM?

The geographical influences which affect the distribution of population determine the types and location of schools. These conditions vary within each State, but the types of schools which have developed in response to the situation are with few exceptions common to all States. They range from the 1-teacher school, in which all of the eight grades may be represented and the enrollment is small, to schools employing one or more teachers for each grade.

Many children enrolled in the public schools express individual difference in kind and in degree sufficient to require adjustments in administration relative to pupil placement, and in the selection of subject matter and its organization with respect to the learning process, if superior children, immature children of kindergarten age, children of physical or mental handicaps, of language difficulties and other specific needs are to have equitable opportunities for education.

Are administrative conditions peculiar to 1 and 2 teacher schools met in State courses of study?—Of all the types of schools represented in the States the 1 and 2 teacher schools present the most difficult problems in respect to the organization of the curriculum. Attempts to equalize the educational opportunities of children in the more sparsely settled areas have led to the organization of larger units of school districts, but despite the progress made in consolidation there are still 153,306 one-teacher schools in the United States.

State courses of study have not been constructed or "made to order" for 1 and 2 teacher schools. Consistent efforts to graft upon the 1 and 2 teacher schools courses of study designed on an 8-grade basis of organization have been and are to-day predominant in practice. These administrative attempts to adapt courses of study planned for the 8-grade organization have led into various plans for the solution of the problems inherent in the organization of 1 and 2 teacher schools.

The difficulty of using a course of study organized for schools in which a sufficient number of pupils are enrolled to employ a teacher for each grade in 1 and 2 teacher schools is recognized by the educational officials of the States of California, Illinois, Kansas, Montana, New York, North Dakota, Vermont, Virginia, and Wyoming in the publication of separate bulletins or courses of study for the rural schools.

The separate courses of study offer more extensive and complete plans for adaptations, alterations, and combinations of grades and of subject matter than is provided in single publications intended for all types of schools.

The following statement in the introduction to the Iowa State course of study indicates the situation in general with respect to the construction of courses of study for rural schools:

The difficulty of making a course of study to serve both rural and graded schools arises not so much out of differences in the subject matter which should be taught in these two types of schools as out of the differences in the administrative problems involved in teaching in the two types of schools. All committees have been constantly alert to make special adaptations to the needs of teachers in rural schools. While this course of study will be of real service to teachers in both city and rural schools, it is the belief of the executive committee that those responsible for making the course of study which succeeds this one should consider seriously the plan of issuing a separate course of study for rural-school teachers, and one for teachers in graded schools.[9]

The experimental development of the curriculum for rural schools is practically virgin territory. In one of the recorded experiments[10] the resources of environment, interests, and needs of children living on farms and the peculiar problems inherent in the process of organization of the curriculum required in the 1 and 2 teacher schools were recognized as basic to the development of the curriculum. A few other experiments seeking to evolve a new curriculum for rural schools out of the existing organization of the school and the State course of study have been carried out for short periods and are now in progress. They are the demonstration schools directed by the State department of education in California; the schools of Wilton, Conn.; the demonstration school of Georgetown, Del.; the Rogers Clark Ballard Memorial School of Louisville, Ky.; the Porter School of Kirskville, Mo.: the Quaker Grove School of Warren County, N. J.; and the schools of Cuyahoga County, Ohio.

Are State courses of study provided for children of kindergarten age?—The problem of providing educational opportunities for kindergarten children in the public schools of the States is in many instances administrative. To provide a trained teacher for children of kindergarten age in a small school is expensive. To secure a teacher who has both the training and the ability to include a kindergarten group in addition to an already overweighted schedule of from three to eight grades is difficult.

The legal age of admission to school ranges from 4 years in Wisconsin to 7 years in Texas. The following States admit children to school at 5 years of age: Iowa, Maine, Michigan, Minnesota, Mississippi, Nebraska, New Jersey, New Mexico, and New York. In Connecticut children are required to be over 5 years of age; in Washington they are admitted at 6 in some parts of the State and at 5 in certain districts; in Massachusetts and Nebraska children may be admitted at any age. No age is specified in Rhode Island.[11] And yet curriculum content for immature and young children unable to do regular first grade work has been provided in the courses of study only

[9] Iowa Course of Study for Elementary Schools (1928), p. 10.
[10] Collings: An Experiment with a Project Curriculum.
[11] Bulletin, 1928, No. 28, U. S. Bureau of Education. Laws Relating to Compulsory Education, by Ward W. Keesecker.

in the States of California, Minnesota, Nebraska, New Hampshire, New Jersey, and Ohio. The commission of the California curriculum study recommends:

> In the lower grades especially curriculum organization should be carefully planned to meet the needs of a large number of children who are immature. The introduction of the kindergarten in school systems where it is not found at present will result in providing one educational means for partially meeting this problem . It is also possible to develop a modified program of primary grade organization which will take care of immature pupils.[12]

What provisions are made to meet needs of individual differences of children?—The developments of intelligence and educational achievement tests have made it possible to determine certain individual differences in children, yet few States have undertaken to provide courses of study to meet the specific needs of groups of children. Some suggestions for adaptations to individual differences in degree of difficulty are included in the contents of courses of study, but they are incidental and do not offer any consistent plan for adjustment of the curriculum to the varying needs of children. Children who are normal but who upon entrance to any grade, for a number of plausible causes, or whose learning rates are slow and upon whom weaknesses of the curriculum due to lack of proper grade placement of subject fall most heavily, must on the whole shift for themselves. Apparently no policy other than the repetition of a year's work is provided for the progress of children who have not been promoted.

When the percentages of failures range from 12 to 16 per cent [13] there are groups of children of sufficient number enrolled in most who require a wealth of educational material and new methods of instruction to fit individual needs both of degree and of kind if equitable educational opportunities are to be provided for them.

Courses of study for handicapped children.—Mentally retarded children are provided for in the publication of separate courses in the States of Massachusetts, New Jersey, and Wisconsin as follows: Massachusetts—Special classes for children three or more years mentally retarded, 1927; New Jersey—The teaching of children mentally three years or more below normal, 1918; New York—Special class curriculum study, 1930; Wisconsin—A course of study for classes for mentally handicapped children in the public schools of Wisconsin, 1927 or 1928.

The State of Texas prepared a course of study in 1930 for non-English speaking pupils.

Course of study for colored schools.—The State Department of Education of Louisiana published a State course of study in 1926 for negro schools.

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[12] California Curriculum Study, pp. 28–29.
[13] According to summary reported, pp. 44–46.

Chapter III

Findings of Recent State Educational Surveys in Relation to the Development of the Curriculum

In recent State educational surveys [1] increasing attention is given to the factors which affect the elementary-school curriculum and the problems in elementary education which should be considered in its development. These surveys include reports of research studies and investigations of educational problems peculiar to the States in which they are made, recommendations and principles based upon these findings, principles of educational philosophy which may be employed in the development of the elementary-school curriculum, and available research studies in the fields of subject matter and educational method.

In those States in which surveys have been made and in States in which similar conditions exist the findings and recommendations of survey reports may serve to bring about constructive educational measures which contribute to the improvement of the curriculum. The State law which reduced the number of required subjects in the elementary schools of California is attributed to the results of the California curriculum study.

"Because of the weight of data accumulated in making this study the Legislature of California in 1925 passed a law reducing the number of subjects required to be taught in the elementary schools from 33 to 12, with provision for three additional subjects to be selected by local boards of education."

A summary of the findings of investigations and the recommendations presented in the State surveys listed above with respect to legislation will be found in Chapter II. Recommendations in relation to classification and promotion, length of school year, examinations, and the kindergarten are included in the discussion of the practices employed bearing upon these topics. Conclusions and recommendations based upon educational theory with their implications for improvement in methods of curriculum construction, pupil failure and their causes, time allotment and the attitude of the public toward the elementary-school curriculum will be discussed here.

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[1] California Curriculum Study, by William C. Bagley and George C. Kyte. Berkeley, Calif, 1926.

Report of the Educational Survey Commission and Survey Staff to the Legislature, State of Florida, 1929.

Report of a Commission Appointed to Make a Study of the Entire Public Education System and Suggest Improvements. State of Mississippi [1925].

Eightieth Report of the Public Schools of the State of Missouri, June 30, 1929, Pts. I and II. Jefferson City, Mo.

Report of the Commission to Survey Public Education. Authorized by the State Legislature, New Jersey, 1928.

Rural School Survey of New York State. Ithaca, N. Y., 1922.

Texas Educational Survey Report. Course of Study and Instruction. Vol. V. Austin, Tex., 1924.

Report to the Educational Commission of Virginia of a Survey of the Public Educational System of the State. Richmond, Va., 1928.

WHAT EDUCATIONAL THEORIES WITH SUGGESTIONS OR IMPLICATIONS FOR CURRICULUM CONSTRUCTION ARE OFFERED?

With respect to the elementary-school curriculum the Mississippi and Texas survey reports present educational theories and offer suggestions for the practical application of basic educational principles to the construction of the curriculum.

In the report of the Mississippi Commission [2] a number of questions are interpreted in terms of educational theory. The questions which bear directly upon the curriculum with some interpretations are quoted here:

What positive contribution to society is being made by the elementary schools of Mississippi?

The schools are to be judged on the basis of their success in fitting persons of all ages properly to perform the activities which ought to make up human living. The cultivated man is one who does all the kinds of things which human beings ought to do, who holds always to high standard, and who does the things well. Culture, as a process and as applied to human beings, is nothing more than bringing persons to perform all desirable human activities in a proper way. * * * Culture is not a static condition; it is rather a way of doing things.

Some of the activities in which elementary education is or might be giving considerable conscious practice are writing letters, papers, reports, etc.; pronouncing one's words; social meeting and mingling; forms of courtesy; viewing appreciatively the world of nature; in one's thought, conduct, and aspirations, following the leadership of the world's men of vision; maintaining a good personal appearance; viewing directly and through reading the world economic institutions * * * and the other social agencies; looking up information to be used in guiding one's work; entering vicariously into the experiences of others in the reading of great literature.

Are the elementary schools of Mississippi providing a sufficiency of practice in the desirable activities?

Do the teachers in Mississippi schools see education as simply the practicing of the younger generation in high-grade performance of human activities?

Are the children of Mississippi being consciously practiced in the performance of life's activities?

Awakening boys and girls to the meaning of cultivated living and bringing them to self-watchfulness in guiding that living is a very different thing from a dreary filling of their minds with cold-storage, mostly repellent, textbook information, and from a development of merely academic skills which function in the classroom for a brief time and then evaporate. Whatever be the value of the latter things, they are not the substance of education.

Are teachers and supervisors of Mississippi elementary schools favorably disposed toward increased practice in normal activities as the substance of education?

Are the elementary schools of Mississippi trying to provide practice in all kinds of needed activities?

Are the elementary schools of Mississippi practicing the children in the performance of any needless kinds of activities?

Is the large amount of elementary-school drill an integral portion of the practice in normal activities?

Have the elementary schools of Mississippi formulated a list of the activities in which the pupils should be practiced?

[2] Report of a Commission Appointed to Make a Study of the Entire Public Education System and Suggest Improvements. Published by the State of Mississippi [1925].

The Mississippi Survey Commission [3] recommends that an analysis of the activities which constitute human living of good type on the part of children of elementary school age be made. For example, it raises the question, "What ought [a child of 6] do by way of fully and properly living the life of a child * * * and thus getting practice in doing the things that should make up the life of the 6-year-old?" It concludes that this "practice in doing all the things that should make up [a child's] life at [the] age [of 6] is the thing which will properly educate him." And that "it is * * * also the thing which best fits him for the next stage of the journey."

It admits that "this is calling for a new type of educational program; children are to be trained to do well the things which make up their lives in the active world of to-day."

The Texas survey report presents a number of guiding principles for evaluating the rural-school curriculum which imply recommendations for curriculum construction. The theory of education basic to these principles is defined as follows: [4]

> The scope of the curriculum and the nature of the guidance given will depend upon one's conception of the purpose of education and the nature of the learning process. These in turn depend upon one's belief as to the nature of the individual and the nature of the social order. Each particular judgment about the curriculum, whether it be concerning major objectives, specific objectives, selection of content, or method of teaching, should spring from and be consistent with a comprehensive theory of education. * * *
>
> The * * * theory * * * accepted as a basis for this report holds that the child is active and not passive. He is a dynamic force, a bundle of impulses seeking expression in various ways. He uses the environment, physical and social, as a means of realizing this self-expression. He finds satisfaction in self-directed activity in attaining his ends and purposes. Mind is a way of behaving. One has a mind or uses his mind when he faces a problematic situation, stops to consider his purpose, his plan, and the facts in the case, before acting, in order that his conduct may most fully satisfy all interests involved, both present and future. * * * To the extent that one behaves in this way he is intelligent. It is the school's task, from this point of view, to provide the child with occasions where impulses may be stimulated, self-expression promoted, and intelligent behavior made possible, encouraged, and demanded.
>
> The guiding principles offered are:
>
> The curriculum should be guided by some clearly defined purpose of education. * * *
>
> The curriculum should state the specific objectives or preferred values for each subject and grade. * * *
>
> These specific objectives or standards should be suggestive and tentatively held rather than fixed goals. * * *
>
> These specific objectives or purposes should be consistent with the major purpose of education. * * *
>
> These desired results of education are best achieved through the medium of real and vital experiences. The curriculum must not only list these objectives

[3] Report of a Commission Appointed to Make a Study of the Entire Public Education System [1925], pp. 89, 91, 95, 96-97, 98.

[4] Texas Educational Survey Report, Vol. V, 1924. Rural Elementary School Curriculum, pp. 245, 247, 251-260.

or preferred values but must suggest the activities through which they may be realized. * * *

The curriculum should guide the teacher in the selection of subject matter that will effectively promote the child's experiences and enrich his life with meaning. * * *

The curriculum must be specifically adjusted to growth needs and experiences of the social group for which it is intended.

Before a curriculum can be constructed to meet the "growth needs" of any group and organized in terms of available pupil experiences, it is necessary to determine what these needs and resources are. * * *

The curriculum should give the teacher abundant suggestions and guidance as to the approved methods of promoting effective learning in its several aspects.

The curriculum must be suited to the school organization and to the teacher for whose use it is intended. * * *

WHAT FINDINGS AND RECOMMENDATIONS SUGGEST CURRICULUM ADJUSTMENTS AS A MEANS FOR REDUCING PUPIL FAILURE?

Specific inquiries into the extent and causes of pupil failure were made in the State surveys of California, Florida, New Jersey, and Virginia. According to the report of these surveys the per cent of failure of pupils approximated 16 per cent in California in 1925,[5] 12 per cent in 32 representative districts of New Jersey in 1928,[6] 13 per cent in Florida in 1927,[7] and 16 per cent in Virginia in 1926.[8] All of these studies attribute the lack of adjustment of the curriculum to the needs and capacities of pupils as the major cause of pupil failure.

From the findings of two studies,[9] Causes and Subjects of School Failure and Pupil Progress in the Elementary Schools, reported in the California curriculum study, the conclusion is reached that the contents of the curriculum are not adjusted to the needs of the normal children and of those not likely to make normal progress.

In The Study of the Causes and Subjects of School Failure the teachers were asked to list pupils who had failed and among other questions to be answered to give the reasons for nonpromotion in each case of failure listed. Fifteen causes were listed by the teachers. The most frequent causes offered in 9,342 failures reported were: Learns very slowly; lack of application, attention; entered with weak foundation; change of schools during year; absent (illness); foreign-language handicap; intelligence tests show pupil subnormal; immaturity. Each of these causes of failure suggests significant problems to curriculum makers.

A further analysis of failures by grades and by subjects was made by Percival. The table tabulating the percentage of failures for each

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[5] California School Curriculum, 1926, by Bagley and Kyte, p. 332.

[6] Report of the Commission to Survey Public Education. New Jersey, 1928, p. 48.

[7] Report of the Educational Survey Commission and Survey Staff to the Legislature, State of Florida 1929, p. 216.

[8] Report to the Educational Commission of Virginia of a Survey of the Public Educational Systems of the State. Richmond, Va., 1928, p. 124.

[9] California School Curriculum, 1926, by Bagley and Kyte, Chaps. XVIII and XIX.

grade is included here. It points specifically to the need of determining grade placement of subject matter, if the curriculum is to serve as a contributing factor in the elimination of failure.

TABLE 1.—*Grade placement of specified subjects of failure showing per cents under each subject* [1]

Subject	Per cent of times each subject is assigned as a cause of failure, by grade							
	I	II	III	IV	V	VI	VII	VIII
Arithmetic	22.7	50.3	68.4	80.4	90.0	75.6	73.2	76.4
Art	.6	.6	1.2	3.3	1.8	.....	.7	1.1
Civics	.....	.....	.....	.....	.....	.....	2.8	13.5
Geography	.3	.....	3.5	29.4	51.2	44.6	62.0	41.6
Grammar	.....	.....	.....	.....	1.2	11.9	32.4	56.2
History	.....	.....	.6	10.5	47.9	39.4	66.2	55.1
Hygiene	.....	.....	.....	2.0	4.2	6.2	14.8	2.3
Industrial arts	.....	.....	.....	.....	.....	.....	.7	.....
Language	9.6	2.9	28.1	34.7	29.4	32.1	22.5	28.1
Music	.3	.6	4.7	4.6	9.4	.....	1.4	2.3
Reading	95.0	87.9	66.1	45.8	29.4	35.2	33.1	18.0
Spelling	7.1	23.2	40.4	23.4	33.5	29.0	26.7	29.2
Writing	6.5	7.5	2.9	5.2	8.2	3.1	1.4	1.1
Total number of pupils failing	322	173	171	154	170	193	142	89

[1] California Curriculum Study, by W. C. Bagley and G. C. Kyte. Berkeley, Calif., p. 359.

The computations of percentages of failures in each of the grades for the State of Virginia [10] were based upon the report of the State superintendent of public instruction for 1925–26. Such high percentages of failure indicate that the learner needs consideration in the selection and organization of subject matter. The following shows the percentages of failures by grades: Grade 1, 18.1; grade 2, 13.1; grade 3, 13.4; grade 4, 17.1; grade 5, 15.4; grade 6, 16.4; grade 7, 17.0; grade 8, 17.7.

Similar conditions exist in Florida. The report [11] indicates that "approximately 63 per cent of all 5-year-old white children and 14 per cent of all 4-year-old children are in school." These children were enrolled in chart classes. Twenty-four per cent of the children enrolled in these same chart classes were of first-grade age or older, and that of the 66,000 children enrolled in the elementary grades, 4,172 children were of junior or senior high-school age. The following statement presents the situation:

> The accumulation of such retardation indicates that in the 10 counties approximately one child in three has been required to repeat at least one term's work by the time he attained the fifth grade. In two counties every child has been failed at least once. In the third grade the percentage of children who had already been required to repeat a term's work ranges from 16 to 40.

The causes for failure estimated by the teachers and supported by the survey staff of Florida were deficiency in tool subjects, low mentality, and late entrance to a grade.

[10] Report to the Educational Commission of Virginia of a Survey of the Public Educational System of the State. Richmond, Va., 1926, p. 124.

[11] Official Report of the Educational Survey Commission to the Legislature, 1929.

Mobility (transfer of pupils from one school to another) is considered as a significant cause of failure in California and in New Jersey. In 1924–25 [11] 18 per cent of failures were contributed to mobility.

The Report of the Commission to Survey Public Education in New Jersey gives two basic causes for pupil failures, "courses of study not adapted to the abilities and interests of below-average children; and teaching that fails to stimulate and direct them in using the abilities which they have"; and indicates three other associated factors: (1) Mobility of families, in which cases pupils are often unwisely and unjustly penalized by assignment to a lower grade; (2) wide range of ability of pupils in the same class; (3) marked unevenness in age on entrance to first grade.

CURRICULUM REVISIONS RECOMMENDED AS A MEANS TO OVERCOME PUPIL FAILURE

Recommendations offered in State surveys to reduce pupil failure relate to school organization, promotion, methods of teaching, and the adjustment of the curriculum to the individual needs of children. The suggestions which bear directly upon the construction of the curriculum and its contents are quoted below.

In the California curriculum study suggestions are offered for curriculum adjustments and investigations. Summarized, they are as follows:

Curriculum adjustments.—The curriculum should be revised to provide a core curriculum which definitely indicates the minimum essentials; the right kind of material for each grade; adjustments in content and organization to meet the capacities of large numbers of pupils who fail in subject matter and who are not likely to reach average achievements; better articulation between grades to remedy conditions due to entrance with weak foundations, and to provide a suitable program for immature pupils.

Curriculum investigations.—Research to discover bases for determining minimum essentials and their grade placement in a core curriculum, the limits that can be attained by children in specific subjects each year, and the optional age for first grade entrance is recommended.

The Florida educational survey report states:

> Low mentality is not failure. It should be met by offering the children school courses in which they are able to succeed (p. 218).
>
> It is certain that some of the children in Florida are bright and some are dull, yet the courses do not make provision for this difference. Some children come from the country and others live in the cities, yet each receives the same treatment in the course of study. * * * Each county should be encouraged to develop courses that will more nearly meet its own needs (p. 245).

[11] California School Curriculum, 1926, by Bagley and Kyte, p. 26.

The report of the New Jersey survey concludes that most of the children who fail have abilities to engage in practical activities of fundamental importance, and that many of them have specialized abilities of superior quality. On this basis the commission recommends that the course of study provide adequate opportunity for the use of the environment and of concrete activities in the study of arithmetic, English, geography, etc., full opportunity for children to "express initiative, originality, and creativeness in all kinds of work that are of value—in art, music, constructive activities, dramatization, writing, experimenting, collecting, or any other forms that represent invention or productive ability" and that the requirements in formal techniques be reduced in the fifth and sixth grades to "cultivate permanent interests and to learn to use whatever is studied in interpreting present-day life and solving its problems." Such a curriculum, they say, will "offer work which evokes the use of all kinds of desirable ability that children possess" (pp. 52, 54).

The Educational Survey Commission of Virginia states:

> When emphasis is persistently placed upon the mere learning of facts and the forming of the specific habits making up the language arts, and arithmetic, there is little place left for the cultivation of the imagination; the development of initiative, inventiveness, and other creative capacities; for training in forming judgments, making choices, and acting upon decisions; for individual and group planning and cooperative acting; or for developing powers of independent self-direction and self-reliance. These are the qualities and the activities out of which life itself is made (p. 130).
>
> To be sure, the State courses of study do mention the importance of these qualities, but actually in the work they are not adequately provided for (p. 130).
>
> The great need in curriculum revision is that of placing altogether more emphasis upon the practical, social, civic, recreational, and esthetic phases of life, developing the formal subjects much more largely in relation to the situation out of which needs for them arise and the needs which their uses serve (p. 130).

WHAT DESIRABLE CHANGES IN TIME ALLOTMENT AMONG THE SCHOOL SUBJECTS ARE INDICATED?

The question of time allotment was studied in the educational surveys of the States of California, New Jersey, and Virginia.

In the California curriculum study the distribution of time allotment in each of the elementary-school subjects was made and a comparison drawn with available research studies of time allotment.

TABLE 2.—*Suggestive schedule of weekly time allotments distributed among the elementary school subjects as reorganized to conform to the 1925 law*

(From California Curriculum Study, by William C. Bagley and George C. Kyte, p. 75)

Subjects	Grade								Total
	I	II	III	IV	V	VI	VII	VIII	
Arithmetic		140	215	215	220	220	220	220	1,450
Language study	120	125	165	170	185	190	205	215	1,380
Reading	435	395	325	245	190	160	145	140	2,035
Spelling	30	80	85	85	90	80	75	75	600
Writing	70	70	75	80	75	70	60	60	560
History	30	30	45	75	90	110	150	170	640
Civics [1]					20	20	30	35	165
Geography			60	130	150	150	120	75	685
Science [2]	25	25	25	25	20	20	20	25	185
Art	90	90	90	90	80	75	75	75	665
Healthful living	120	120	120	120	125	125	135	135	1,000
Practical arts [2]	25	25	25	30	45	60	85	100	395
Music	75	75	75	75	75	75	70	70	590
Opening exercises	20	20	20	20	20	20	15	15	150
Miscellaneous					50	75	80	90	295
Recess	100	100	110	110	110	110	100	100	840
Total	1,140	1,295	1,445	1,465	1,545	1,560	1,585	1,600	11,635

[1] Including morals and manners.
[2] Optional subjects; not included in the list of the prescribed 12.

According to the report of the Survey Commission of New Jersey in 1928, the per cent of time allotted to the various subjects in the grades was distributed as follows: Traditional three R's, including spelling and language, about 50 per cent; history and geography, 12½ per cent; subjects required by special legislation (physical education and hygiene with special reference to narcotics; civics, including United States Constitution, and opening exercises including Bible reading), about 12 per cent. Supervised play and recess, 5 per cent; music and drawing, 9 per cent; industrial arts and sciences, 5 per cent; and miscellaneous activities, 3 per cent. The commission recommends that the time devoted to industrial arts and related subjects, which is about 5 per cent, be extended rather than curtailed.

A summary of time allotment in Virginia states that 49.5 per cent of time is given to formal subjects, but 17.4 per cent of time to the content subjects, 5.6 per cent of time to spelling, 5.9 per cent of time to history and civics, 4.9 per cent of time to penmanship, 3.5 per cent of time to nature study or science, and 6.8 per cent of time to geography. The comparison drawn between the distribution of time allotment in Virginia in 1928 and reported in Keeping Pace with the Changing Curriculum, by the National Education Association in 1924, is quoted:

> In 1904 * * * spelling and penmanship each received 4.4 per cent of the total elementary school time. Despite the reduction of the spelling lists * * * and the improvement in methods of teaching developed since that time in both spelling and penmanship, the city schools of Virginia are to-day devoting more time to both subjects than the city schools of the country in general devoted to them in 1904. In 1904 the time allotted to industrial arts by the same city schools was 2.2 per cent and to nature study or science 3.7 per cent. To-day the time

given to these subjects in Virginia is not up to the allotments of over 20 years ago, despite the fact that we think of this as an industrial age and recognize that it is a period in which every phase of our lives is increasingly dependent upon science and influenced by it. With all of the developments brought about by the World War and our growing world-wide relationships, and with all of our emphasis upon the importance of a more intelligent and efficient citizenship, the city elementary schools give less than 1 per cent more time to geography, history, and civics combined than to arithmetic.

* * * Is not this very distribution of time among the school subjects the revelation of a need for a thoroughgoing inquiry of what is really meant by education and how education is to be developed?[18]

WHAT CHANGES IN THE ELEMENTARY SCHOOL CURRICULUM ARE DESIRED BY THE PUBLIC?

In the surveys of the States of California and Virginia an attempt was made to determine the attitude of the public toward the curriculum.

In the California curriculum study questionnaires were sent to two groups of laymen, a selected list prepared by school officials which includes "representative men and women * * * who can bring to us frank, thoughtful criticisms with respect to the elementary schools as they are now operating" and a random list made up from telephone directories. For comparative purposes questionnaires were also sent to all city and county superintendents, samplings of elementary and high-school teachers and principals, and all members of the National Society of College Teachers of Education. Among other questions these representative groups were asked to indicate the relative importance of subjects for the elementary school and to make suggestions regarding the addition of subjects to the regular lists. (California Curriculum Study, by Bagley and Kyte, Ch. 15.)

In the State survey of Virginia questionnaires including the question, "What subjects do you think should be taught in the elementary school?" were sent to two groups of laymen, a list of the 383 Virginians listed in "Who's Who" and every fifteenth name from a mailing list of the University of Virginia representing every trade and calling. The replies received represented the professions of teaching, ministry, medical, legal, engineering, nursing, writing, manufacturing, trade, agriculture, and personal service.

In both studies the conclusion is reached that the public is on the whole interested in, and sympathetic with, the work of the school, and that it regards the "three R's" of greatest importance, but that it does not fully appreciate some of the educational ideals held by the profession. The conclusions drawn as to the attitudes of the public in regard to the demand for new subjects are quoted.

[18] Report to the Educational Commission of Virginia of a Survey of the Public Educational System of the State, by M. V. O'Shea, Director, 1928, p. 129.

From the California curriculum study:[14]

The reactions of the public to the relative importance of the required subjects and the limited suggestions regarding additions to be made * * * constitute strong evidence that some of the subjects which have been legislated to the curriculum through the pressure of organized minorities would have met a different fate had they been submitted to a popular referendum. * * * The comments of the citizens about many subjects required until recently by law contain further proof that the public attitude toward these subjects is not what minority organizations believe it to be.

The per cent of each group commenting upon subjects to be added are meager, but are not without their significance. * * * These judgments throw some light upon the gaps in the present curriculum. They indicate points at which a serious student of the problem would be likely to find the most serious lacks or deficiencies. * * * From this point of view they provide for the curriculum maker information to be taken into account in revising courses of study.

In the Virginia survey[15] the following comparison of the reaction of the lay public was made:

Their answers to the various questions correspond almost exactly in order of the emphasis placed on the different objectives, offerings, etc., with both the opinions of teachers themselves and with educational experts in the field of public education. Indeed, it seems probable that general public attitudes toward and demand for education have been the bases from which educators of to-day have built an educational theory and practice.

Chapter IV

Plans and Techniques Employed in the Process of Curriculum Construction

Techniques of curriculum construction are in the making. Educational literature contains a number of research studies[1] which contribute statements of educational theory, principles of curriculum construction, and sources of research material which may contribute to the process of curriculum construction.

The educational officials in a few of the States have initiated and participated in State surveys and investigations which contribute to the literature of curriculum research. The contents of courses of study also indicate that the results of research have been utilized in the development of the curriculum.

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[14] California Curriculum Study, by Bagley and Kyte, p. 270.

[15] Report to the Educational Commission of Virginia of a Survey of the Public Educational System of the State, p. 377.

[1] Cocking, Walter D. Administrative Procedures in Curriculum Making in Public Schools. Bureau of Publications, Teachers College, Columbia University, New York.

National Education Association. Keeping Pace with the Advancing Curriculum. Research Bulletin, Vol. III, Nos. 4 and 5, September and November, 1925.

National Education Association. Yearbooks of the Department of Superintendence, 1924-1927.

National Society for the Study of Education. XXVI Yearbook, Pts. I and II.

Stratemeyer, Florence B. and Bruner, Herbert B. Rating Elementary Courses of Study. Studies of the Bureau of Curriculum Research, Bulletin No. 1, Teachers College, Columbia University, New York, 1926.

WHAT STUDIES AND EXPERIMENTS HAVE BEEN CONDUCTED PRELIMINARY TO OR IN CONJUNCTION WITH PROGRAMS OF CURRICULUM REVISION?

Few studies related to the selection and organization of subject matter have been made in connection with programs of curriculum revision.

The California curriculum study, which is the most comprehensive, deals entirely with the problems of the curriculum. It includes a number of separate studies, as follows:

A—1. Curriculum legislation in California.
2. Trends of curriculum interests of national noneducational organizations.
B—1. An effort to determine the attitude of the public regarding the elementary-school curriculum.
2. An investigation of the influences of county examinations upon the rural curriculum.
3. An analysis of pupil mobility as it affects the curriculum.
4. A detailed study of the progress of pupils as affecting possible modifications of the curriculum.
5. An investigation of the causes of failure, including the subject-matter weaknesses.

In addition each subject was analyzed in relation to grade placement, methods of teaching, time allotment, supplementary materials, and scientific investigation.

The State superintendent of Oregon has submitted reports of three State surveys of the subjects of arithmetic, handwriting, and spelling made by committees of the Oregon State Teachers' Association. A summary of the Oregon spelling survey and extracts from A Survey of Achievement of Oregon Pupils in the Fundamental Subjects, by Homer P. Rainey, and Comparative Pupil Achievement of Rural, Town, and City schools, by M. J. Van Wagenen, are presented in relation to the problem, "What plans are offered for the progress and promotion of children?" on pages 72–74. Two studies, (1) A Criticism of the Present Course of Study in Arithmetic and (2) Grade Placement in Arithmetic, were used by the committees for the revision of the State course of study in arithmetic in Indiana.

WHAT USE IS MADE OF THE RESULTS OF RESEARCH?

The results of research may contribute much to the educational progress of the elementary school child if utilized in the construction of State courses of study. The results may aid (1) in providing a wide range of rich and worth-while experiences for children selected and organized on the basis of the varying needs; and (2) in the material reduction of waste in energy and time by the elimination of obsolete and unessential material, the proper distribution of time, and the introduction of improved practices of teaching.

The contents of courses of study were checked to determine what use was made of the results of research in the process of curriculum construction. An examination of a number of courses of study revealed that the research and professional literature used was embodied in the content of courses of study and appeared in reference lists or bibliographies at the end of chapters or units of subject matter presented. It seemed best in this report to include only such research studies utilized in which references were incorporated in the contents of courses of study.

Since the purpose of this study is to discover techniques of procedure rather than to make a complete report of the professional literature used, the results found will be given only for the subject of reading. Of the available courses of study one or more research studies were used in the construction of courses in reading in 21 of the States. The tabulation of research studies used includes only those which were utilized by the curriculum makers in two or more States.

TABLE 1.—*Research studies utilized in the construction of State courses of study in reading* [1]

Studies	California	Colorado	Connecticut	Georgia	Idaho	Iowa	Maryland	Minnesota	Mississippi	Missouri	Montana	Nebraska	New York	North Carolina	North Dakota	Ohio	Oklahoma	Pennsylvania	Vermont	Washington	Wisconsin
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Children's reading [1]	x							x		x											
Fifth yearbook [2]								x													x
Improvement of reading [3]					x															x	
Materials of reading [4]			x																	x	
Reading vocabulary for the primary grades [5]	x			x						x		x									
Remedial cases in reading [6]		x					x										x			x	
Remedial work in silent reading [4]							x			x											
Silent reading: A study of the various types [7]						x										x					
Teacher's word book [10]					x					x	x		x	x				x		x	
Twentieth yearbook [11]							x												x		
Twenty-fourth yearbook [12]				x	x	x		x	x	x	x	x	x		x		x		x		x
Winnetka graded book list [13]		x								x											

[1] In most of the State courses of study educational tests and practice material were referred to and listed for the use and guidance of teachers. These tests are not included in this tabulation.
[2] Terman and Lima. Appleton, New York, N. Y.
[3] Department of Superintendence.
[4] Gates, Arthur I. Bureau of Publications, Teachers College, New York, N. Y.
[5] Uhl. Silver Burdett Co., New York, N. Y.
[6] Same as note 4.
[7] Gray, W. S. University of Chicago.
[8] Anderson, C. J., and E. Morton. Elementary School Journal.
[9] Guy Thomas Buswell (with Charles Hubbard Judd). University of Chicago Press, Chicago, Ill.
[10] Thorndike, E. L. Teachers College, Columbia University, New York, N. Y.
[11] National Society for the Study of Education.
[12] Same as note 9.
[13] American Library Association, 520 North Michigan Avenue, Chicago, Ill.

The following examples illustrate the use of the results of research in reading:

All words collected by the teacher during the reading lessons are carefully checked against the Thorndike Word Book. Those falling within the 2,000,

which will be needed first in reading experiences, are printed on phrase and sentence cards and used in short exposure exercise until recognition is fixed.[2]

Attention has been called by Gates, Dolch, and others, to the necessity of preparing children for the variety of uses and meanings which may be attached to single word symbols. When a child has learned the meaning of a word in one situation there is no assurance that this knowledge will help him to interpret this word when found in another meaning situation. A glance at the following uses of words will demonstrate the variety of meanings associated with even small and simple words:

beat an opponent.	a black *bear*.	fell *down*.
beat with a stick.	*bear* a load.	*down* of the thistle.
beat of the heart.	*bear* fruit.	*down* an opponent.[3]
beat of the drum.	*bear* pain.	

Other examples serve to illustrate the use of the results of research in suggestions for time allotment, the selection and organization of content, and criteria for the improvement of instruction.

In the course of study for the State of Washington a suggested table of time allotment for each of the grades in each of the subjects is offered. According to the statement[4] below it is built upon the findings of research:

> On [the] basis of scientific investigation (which has proved that the fundamental subjects still receive about two-thirds of the time allotted to elementary school subjects of the curriculum, the remaining third being devoted to the special subjects), the * * * schedule of weekly time allotments * * * has been formulated.

In The Teaching of Geography,[5] prepared for the elementary grades of New Jersey, the time schedule is based upon a comparative study of the time allotted to the study of geography in the two studies.[6]

In the course of study for Arkansas, the spelling words for the elementary grades were selected from the Iowa Spelling List. The words provided in the Kansas course of study were taken from Jones's One Hundred Spelling Demons of the English Language.

The Ayres list of words was recommended in the course of study for Tennessee.[7]

> The 1,000 commonest words of the English language, as prepared by L. P. Ayres, of the Russell Sage Foundation, are appended herewith. These words should be distributed through the grades according to their difficulty as indicated by the figures at the head of the columns. For instance, the third grade might be made responsible for all words in the column under 84 for the third grade, which indicates that the third grades of the country usually average 84 per cent

[2] Elementary Course of Study, State of Washington, 1930. Issued by the State Department of Education, p. 73.

[3] A Course of Study for the Elementary Schools of Wisconsin. Madison, Wis., 1929, p. 17.

[4] Elementary Course of Study, State of Washington, 1930. Issued by the State Department of Education, p. 11.

[5] New Jersey. The Teaching of Geography, Grades 1 to 8, July, 1926, pp. 21-22.

[6] Second Yearbook of the Department of Superintendence, N. E. A. survey committee of the New Jersey State Teachers' Association. (Similar study in 1924–25.)

[7] Course of Study, Public Schools of Tennessee, Elementary Grades, 1921, p. 55.

on these words, and for all preceding words. Each grade's required list might be worked out in the same way.

The grade standards desired for the elementary grades in writing for the State of Connecticut[8] have been derived from a comparative study of writing scales in relation to the situation prevailing in the public schools of the State.

WHAT POLICIES AND PRINCIPLES ARE EMPLOYED IN THE ORGANIZATION AND WORK OF STATE-WIDE CURRICULUM PROGRAMS

In many of the States plans and programs for the development of courses of study are identified with the programs for textbook adoption and center around the plan of organization offered in elementary-school textbooks. This may be due to the fact that programs for textbook adoption are scheduled by subject and by years and that the majority of textbooks are organized by subjects, and in most cases by grades, and to the prevailing assumption that textbooks as organized offer the best plans for the development of the educational process.

A number of States have submitted definite plans and programs for curriculum construction which are independent of textbook selection. They are presented here:

PLAN OF ORGANIZATION OF COMMITTEES FOR THE STATE OF ALABAMA[9]

Curriculum consultant, specialist in elementary education. * * *

Director of program.

Central committee composed of five regional supervisors from each of the State teachers colleges and specialists convenient to the State department of education.

Ten [subject-matter committees include]: Sixty-five supervisors, 100 principals, 5,000 teachers, 24 critic teachers, 140 practice teachers, and 20 subject-matter specialists from the State teachers colleges.

Deans of instruction in * * * colleges. * * *

PROGRAM FOR CURRICULUM CONSTRUCTION IN CALIFORNIA

The program for curriculum construction in the State of California was initiated in the survey of the State curriculum reported in the California curriculum study. Out of this study two important pieces of legislation developed: First, a reduction of the required number of elementary-school subjects; and, second, the provision for the State Curriculum Commission, according to the statement of the State superintendent of public instruction in his biennial report of 1928.

In 1927 the curriculum commission undertook to develop a basic course of study in reading. It appointed two state-wide committees of 122 members to assist in the work.

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[8] A Course of Study in Handwriting. State Board of Education, Hartford, Conn., 1929.

[9] In letter dated Dec. 19, 1929, from Clara L. Pitts, supervisor of teacher training.

The development of an activity program.—The State curriculum commission [10] departed radically in its procedure in the development of the course for the kindergarten-primary grades. When the committees attempted to set up objectives and educational principles for the preparation of the course of study in reading, a step which they regarded "prerequisite to the actual selection of reading texts," they came to the conclusion that they "could no longer support the teaching of reading as an isolated subject, based upon a separate course of study." Their investigations revealed "the insistent need for a statement of principles, objectives, and standards which should integrate all subjects about those vital experiences which make for the fullest development of children." These committees concluded "that there was urgent need for a comprehensive consideration of the entire work of the primary grades and for concrete interpretation which should clarify for teachers generally the educational philosophy and the actual operation of a school program based upon rich and carefully guided experiences, as contrasted with that based upon the more traditional, logical formal organization of school subjects."

The outcome of the committees' considerations was the decision to organize the entire curriculum as an activity program. Their definitions of "activity program" and the term "activity" are quoted:

> By the term "activity program" is meant a school curriculum which provides a series of well-selected activities for different levels of growth; which offers opportunities to children to engage in worth-while, satisfying experiences while carrying out their most worthy and most challenging purposes. It provides an environment in which children continually purpose and act in situations of meaning to them (see Chapter V); in which they live fully, richly, happily, now, and so have the best possible preparation for living successfully after they leave school.
>
> * * *
>
> An "activity" is any large learning situation brought about by the strong purpose of a child or group of children to achieve a worthy end desirable to themselves, which, like those situations in life through which we are most truly educated, draws upon a large number of different kinds of experiences and many fields of knowledge.

The environment an essential factor in the educational process.—An interpretation of the curriculum which recognizes the environment of children as an essential contributing factor in the educational process implies direction and control of the environment toward the realization of the outcomes sought. The environmental conditions re-

[10] Teachers' Guide to Child Development, by the California Curriculum Commission, Sacramento Calif., 1930. Introduction, pp. xvii, xviii; also pp. 17, 18, 25, 48–49, 388–390.

garded as positive by the curriculum committees of the State of California are stated:

A. CONDITIONS NECESSARY FOR DEVELOPING EMOTIONAL STABILITY IN CHILDREN

(We consider this first because it is a most important factor in both mental and physical well-being)

1. Happiness, achieved through—
   - (*a*) Freedom from fear and strain of any kind.
   - (*b*) Freedom from prolonged physical restraint.
   - (*c*) Freedom to explore the environment; to carry on investigative activities; to use their initiative.
   - (*d*) Freedom to express themselves:
     - (1) In play.
     - (2) In natural, spontaneous speech and song.
     - (3) In physical activity, spontaneous, rhythmical, and that directed toward some purpose—toward causing something to happen to materials.
   - (*e*) Freedom to ask questions.
   - (*f*) Abundant activity out of doors.
   - (*g*) Charm, homelikeness, and suitability in the surroundings.
   - (*h*) Provision for quiet, individual thinking or study.
   - (*i*) Good health.
   - (*j*) Feeling of success in undertakings.
   - (*k*) Ambition to render unselfish service and to follow a high ideal.
   - (*l*) Feeling of contributing something of worth to the group work.
   - (*m*) Feeling of learning to control themselves—group and individual self-control rather than teacher domination.
   - (*n*) Feeling of harmony in the group; of sympathy and interest in the teacher.

B. CONDITIONS NECESSARY FOR PHYSICAL WELL-BEING AND GROWTH OF CHILDREN

1. Health and purposeful activity, achieved through—
   - (*a*) Emotional stability (see A, above).
   - (*b*) Attention to physical condition and correction of wrong habits. (See p. 436.)
   - (*c*) Freedom and space for varied physical activities in the classroom, particularly for those requiring the use of the large muscles.
   - (*d*) Variety of stimulating materials for manipulation and exploration.
   - (*e*) Access to the out of doors; abundant activity in the fresh air.
   - (*f*) Abundant play.
   - (*g*) Care of eyes through proper use of color and correct lighting of rooms.
   - (*h*) Clean, moving atmosphere of proper temperature and humidity.
   - (*i*) Clean floors and furniture; accessible and freely used sanitary equipment.
   - (*j*) Charm and suitability in surroundings.
   - (*k*) Proper nutrition and rest.

C. CONDITIONS NECESSARY FOR MENTAL WELL-BEING AND INTELLECTUAL GROWTH OF CHILDREN

1 Live, purposeful mental effort, achieved through:
   - (*a*) Emotional stability and physical well-being: All the conditions listed under A and B, above.
   - (*b*) Social experiences with many people and in many different situations.

1. Live, purposeful mental effort, achieved through—Continued.
   (c) Access to the materials of knowledge—the social heritage; to books and publications, pictures, museums, industries and occupations.
   (d) Development of techniques required for skillful use of these materials.
   (e) Free access to the larger environment outside the schoolroom walls.
   (f) Guidance of skilled, intelligent, sympathetic adults, experts in the process of education.

D. CONDITIONS NECESSARY FOR DEVELOPMENT OF SOCIAL EFFECTIVENESS IN CHILDREN

1. Much natural social intercourse, achieved through:
   (a) Physical and mental well-being and growth, and emotional stability: All the conditions listed under A, B, and C, with particular emphasis on the following:
      (1) Freedom to express themselves in natural, spontaneous speech: To relate happenings, discuss problems, ask questions, express ideas.
      (2) Freedom to express themselves in physical action.
      (3) Abundant play.
      (4) Feeling of success in undertakings.
      (5) Feeling of contributing something worth while to group work.
      (6) Feeling of learning to control themselves according to the best group standards.
   (b) Opportunity for group work: Space, equipment, and encouragement for carrying on many group projects.
   (c) The assumption by each child of as much responsibility as he can successfully carry.
   (d) Development of attitudes of tolerance, respect for others' rights, and of helpfulness.
   (e) Experiencing pleasure of sharing their possessions and interests.
   (f) Development of the capacities for appreciating beauty—in relations with people as well as in objects.
   (g) Free access to all room materials, with development of responsibility toward a careful and economical use of them.
   (h) A place for group supplies and for individual possessions; orderly, convenient arrangement of materials and furnishings of the room.
   (i) Development of orderly habits in children.

The essentials of an educational activity.—Supervisors, teachers, and student teachers were given opportunity to contribute reports of activities planned and developed in and for the primary grades.

As a guide for those who were interested in the preparation of valuable curriculum materials for use in their own schools and for possible contribution to the State collection of educational activities an outline [11] was included in the guide. This outline points out the essentials for the development of an educational activity and indicates the form in which the activities to be included in the contents of the curriculum are reported. It is quoted here in full.

[11] Compiled by Corinne Aldine Seeds, Principal of Training School, University of California, Los Angeles

PREPARATION FOR A SOCIAL SCIENCE ACTIVITY

(Subject matter chiefly history, geography, and nature study)

NAME OF ACTIVITY—GRADE IN WHICH IT IS TO BE GIVEN

Part A—

I. A logical,-detailed outline of all subject matter that could be involved in the activity. This is for enriching the cultural background of the student teacher and also for giving the opportunity to the teacher of surveying the field for possible problems of interest to children.

II. A brief outline of subject-matter points that will probably be of interest to children of that grade. (This means a selection of pertinent facts, etc., in Part I that may give rise to the problem.)

III. A list of possible *problems* for study that might be raised, the solution of which would be worth while to that group.

IV. Possible approaches to the problems listed in III. (Work through approaches to at least three problems.) What teacher does or says. What children say or do.

V. Possible questions, group discussions, assembly reports, or individual reports that may arise.

VI. Related activities which may accompany or grow out of this problem solving unit (as industrial arts, literature, music, rhythm, etc.).

VII. Extensive bibliography:

(*a*) For teacher.

(*b*) For children.

Part B (this is to be a narrative account of the activity as it was actually developed with the children describing)—

I. The situation out of which the problem activity arose—showing who and what started it. (This assumes that the teacher selects from those listed as possible in Part A the most promising approach to the problem which she thinks will be most gripping, challenging, and interesting to the children.)

II. How the problem was stated and defined with the suggestions for solution offered by the group.

III. How the children and teacher planned together and carried the activity to a successful termination.

IV. The specific outcomes of the activity in terms of—

(*a*) Knowledge.

(*b*) Habits.

(*c*) Attitudes.

V. The bibliography which actually functioned in the carrying out of the activity:

(*a*) For teacher.

(*b*) For children.

Criteria for the selection of educational activities.—As a basis for the selection of educational activities the following criteria were submitted:

1. Is the activity closely related to the child's life so as to lead him to want to carry it through?

2. Is it sufficiently within the range of accomplishment of the learner to insure a satisfactory degree of success?

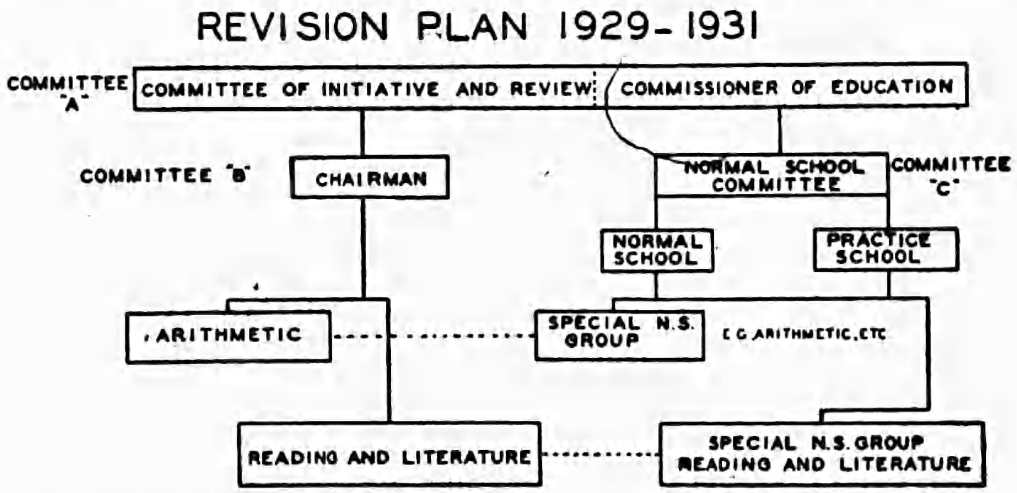
3. Is it so varied from the previous activity as to permit the child's all-round development?

4. Does it furnish opportunities for many kinds of endeavor?

5. Does the subject matter involved present major fields of human achievement?
6. Does the activity involve an extension of present insight and abilities?
7. Does it provide an opportunity for social contacts?
8. Will it lead into other profitable activities?

PROGRAM FOR CURRICULUM CONSTRUCTION IN CONNECTICUT

The educational officials of the State of Connecticut have developed a program of curriculum building which challenges the policy of organizing courses of study for the benefit of the untrained teacher. The plan involves a program which coordinates the efforts of teacher-training agencies and State and town supervisory officials upon the study of problems of curriculum revision. The program provides for the development of the elementary-school curriculum with that of the revision of normal-school curricula. This integration of the classroom



work of the elementary-school teacher with that of the students and faculties of the normal schools should result in the effective training of teachers for the intelligent use of the State course of study.

Elementary-school curriculum revision coordinated with normal-school program.—The following extracts from the report of the Connecticut Board of Education [12] outline the development of the program for curriculum construction in that State:

A further phase of reorganization was begun when the commissioner of education presented to the State board of education in June, 1923, a detailed plan for the revision of the normal school curricula as a part of a more comprehensive plan of better coordinating the normal schools with the elementary schools of the State. With the approval of this plan the board granted the further request of the commissioner that a "special agent" be appointed for the year 1923–24 to serve as a coordinator of the reorganization and curriculum revision activities and be responsible to the commissioner.

At the same time provision was made through special committees of superintendents, principals, and teachers for the development of a series of courses of study and teaching monographs to be available for the voluntary use of the

[12] Connecticut. Report of the Board of Education to the Governor, 1924–26. Part II, pp. 123–124, 127, 129.

elementary schools of the State. Coordination of the work of these committees was provided through the appointment by the commissioner as chairman of a board of review.

There was also a board of review charged with the general coordination and consideration of the normal school reorganization and curriculum revision. This board consisted of the commissioner of education, chairman; the special agent, the director of rural education, the supervisor of elementary education, the supervisor of secondary education, and the four normal school principals. The overlapping membership, as well as the plan of operation, thus provided for a large measure of coordinated development both of the normal school curricula and courses of study and the public elementary-school courses and teaching monographs.

For purposes of faculty cooperation and study upon the detailed problems 15 committees of the normal-school staffs were organized. There was upon each committee one representative from each normal school. Each committee also organized subcommittees of teachers in the practice and demonstration schools. The special agent devoted his attention in large part to helping and guiding these committees and coordinating their work. Most of the committee work dealt with problems of the course of study.

The courses of study developed for voluntary use in the public schools of the towns and cities were incorporated into the normal school organization as the core of the demonstration school work and the professionalized subject-matter courses

PROGRAM FOR CURRICULUM CONSTRUCTION IN IOWA

The work of curriculum construction in Iowa was directed by an executive committee of five members representing the various professional groups in the State. A state-wide committee of 112 members was organized into subject-matter groups and other additional committees such as adaptation to rural school programs, alternation and distribution of time, etc. Two subcommittees were organized in reading, one for primary reading and one for work-type reading.

Plan for the organization of the course of study.—The following suggestions for the organization of the course of study were prepared for committee members:[15]

The executive committee feels that the course of study will be much more unified and usable if each committee will organize its report under the headings which are given below. These headings should stand out in your manuscript and should be numbered as here indicated.

A. General introductory statement. (This should include a preliminary of what the course intends to do.)

B. Equipment needed.

C. Suggestions for teaching. (There should be a statement of general methods, which should occupy not more than two or three pages. This statement should call the particular attention of teachers to the fact that important decisions with regard to methods are made so far as possible on the basis of the results of research. In addition to general methods, there should be given typical exercises or teaching devices which can be used in any grade. These should be few, concrete, and brief. * * * There should be a clear, plain discussion of the importance of children's purposes and how to get them set up.)

[15] The Organization of the Iowa Elementary Course of Study, by Agnes Samuelson. Elementary School Journal, February, 1930, pp. 416–420.

D. The course of study by years. This should be organized as follows:

1. Essential subject matter.

2. The relation of the course of study to the textbook in use. * * * (This section of the report should show the teacher how to realize through her textbook the specific outcomes set up in your section of the course of study.)

3. Important methods and exercises. * * * (Special emphasis should be given to the following points):

(a) Problems of teaching. (Suggestions for meeting [the problems of teaching which most often give difficulty to the inexperienced teacher].)

(b) Concrete activities. (Suggested concrete activities, projects, and the like.)

(c) Diagnostic and remedial work. (Show how diagnostic and remedial work can be used to adjust instruction to the individual.)

4. Standards of achievement. (The outcomes to be attained for promotion. Some of these outcomes should probably be stated in terms of subject matter covered rather than in terms of years.)

5. The use of tests. (This statement should include advice on the use of informal tests and possibly also directions for the use of standard tests. * * * It is especially important that the recommendations on testing should be in harmony with the recommendations on "essential subject matter" as well as with the recommendations on "standards of achievement.")

6. Relation to other subjects.

7. Special helps for rural teachers.

8. Special problems in the primary grades. (Your committee should give specific help in the teaching of your subject in the primary grades. It will be especially helpful if you can indicate lessons in your subject which are suitable for the "General Lessons" usually given in rural schools.)

9. Pupils' references.

E. Teachers' professional library.

It was constantly emphasized that the organization and the language of the book should be adapted to the untrained teacher, technical terminology and philosophical discussions to be avoided in the interests of concreteness. In the preparation of the manuscripts, the committees were not given time to make new findings in the content and technique of instruction, but were advised to apply what had been discovered through modern educational practice and research.

PROGRAM FOR CURRICULUM INSTRUCTION IN INDIANA

The program for curriculum construction in Indiana is directed by a general executive committee. This committee developed the plan of organization for the state-wide curriculum commission and outlined its own from this as well as six other essential committees and submitted certain principles of procedure in curriculum construction. The plan of organization is given here: [14]

PLAN OF ORGANIZATION FOR ELEMENTARY CURRICULUM REVISION IN INDIANA

1. General executive committee:

(a) To formulate the general objectives of elementary education.

(b) To work out the guiding principles of elementary curriculum revision.

[14] Guiding Principles of Elementary Curriculum Revision for the State of Indiana. State Department of Public Instruction, Indianapolis, Ind., Bulletin 107, 1929.

(c) To determine the number of committees and define their relationships.

(d) To fix the grade placements and time allotments upon the recommendations of the subject committees.

(e) To act as coordinating agency among the subject committees, and to settle all questions referred to them by the subject committees.

(f) To review the work of each committee and transmit same to the State superintendent for the approval of the State board of education.

2. Subject executive committee:

(a) To determine the current practices in the country * * * with respect to method of procedure, content, time allotment, etc.

(b) To define clearly the specific objectives of the subject in the light of the general objectives set forth by general committee: (1) For each period of development. (2) For each grade level.

(c) To determine relationships between objectives and outcomes—outcomes as a check list.

(d) To select and validate the curriculum content: (1) By setting up criteria for determining and selecting content (i. e., social needs, individual differences, children's interests, etc.). * * *

(e) To prepare forms for the gathering of the data from the contributing schools.

(f) To assign specific and definite problems to subcommittees and to create as needed, additional committees for such work.

(g) To act as a clearing house and correlating agent for all fields of investigation and to evaluate data submitted by the extension seminars, summer seminars, the committee on research and experimentation, the committee on adaptation to small schools, and the contributing schools.

(h) To determine the use of tests and measurements in relation to the course of study.

(i) To suggest to the executive committee the solution of the problems of administrative adjustment concerning: (1) Time allotments. (2) Form and organization of the course of study.

3. Experimentation and research committee:

(a) To collect and compile data needed by the subject committees.

(b) To advise the committees with respect to the goals of attainment for each grade level.

(c) To develop achievement tests which will measure progress of the pupils in accomplishing the objectives.

4. Small school adaptation committee:

(a) To adapt the course of study to the use of the small schools.

PROFESSIONAL GUIDANCE OF CURRICULUM CONSTRUCTION IN MARYLAND

The State department of education in Maryland does not publish a State course of study.[15] It does give professional assistance to county supervisors and teachers in the development of courses of study. The following quotation from "Tentative Goals in History" [16] indicates the method of procedure employed through the use of publications issued by the State department of education:

[15] Maryland School Bulletin, January, 1927, 52 pp. Issued by the State Department of Education, Baltimore, Md.

[16] The New History, by James Harvey Robinson, 1912, p. 64.

The tentative goals in history for fourth, fifth, sixth, and seventh grades are submitted to supervisors and teachers in the Maryland counties with the request that during the year they study the material, use it, and make specific critical comments covering these points:

Are the goals reasonable in scope or are they too difficult of accomplishment?

Are the goals clearly stated and do the "Notes" really fulfill the purpose of "enlarging the viewpoint of teachers and pupils"?

Is the subject matter rightly placed in the grades?

Is enough subject matter indicated to show how the goals may be accomplished?

Would you eliminate any of the goals?

Would you add other goals?

Have you any suggestions to make for the revision of these goals?

The goals outlined for grades (4–7) are organized under three heads: Attitudes and appreciation, skills and habits, knowledge and abilities. The following definition of history and extracts from the goals listed illustrate the nature of the suggestions offered:

History has its own specific contribution as distinct from any other subject in the curriculum in that it explains the present as a result of the past.

The continuity of history is a scientific truth; the attempt to trace the slow process of change is a scientific problem and one of the most fascinating in its nature. It is the discovery and application of this law which has served to differentiate history from literature and morals, and which has raised it, in one sense, to the dignity of a science.[16]

Attitudes—appreciations.—A conception of historical continuity, or as Professor Robinson expresses it, "a recognition of the fact that every human institution, every generally accepted idea, every important invention, is but the summation of long lines of progress."

The gradual development of a scientific attitude of criticism and investigation which will result in a *rational* rather than a merely *emotional* patriotism; a consideration of several viewpoints of an historical controversy; ability to draw a clear-cut distinction between conclusions based upon adequate evidence and conclusions founded upon prejudice or preconceived ideas.

Skills and habits (grades 4–7).—Geography and civics as well as history should contribute to the formation of these skills and habits.

1. Ability to use with an increasing degree of skill simple reference material—books, newspapers, periodicals, encyclopedias, bibliographies, atlases, pictures, maps, charts, globe, as aids in study.

2. Effective habits of study and thinking as evidenced by growth in ability to (*a*) recognize and formulate problems; (*b*) collect pertinent facts bearing on a topic or a problem; (*c*) classify, organize, and relate these facts; (*d*) make statements or draw conclusions based on these facts; (*e*) be able to summarize evidence in support of one's own statements, as well as evidence for or against the statements made by classmates.

Fourth grade—knowledge and abilities.—These goals are not designed to be outlines of subject matter nor devices of method. Only enough subject matter has been indicated to show how certain phases or topics may be used to aid in the accomplishment of some of the purposes in the teaching of history. The notes which follow certain "goals" are designed to broaden the viewpoint of the teacher.

[16] The New History, by James Harvey Robinson, 1913, p. 64.

A knowledge of the facts required to answer these questions:

(*a*) What Old World conditions led to western exploration?

(*b*) Why did Europeans seek a new trade route to the east?

(*c*) What was accomplished by the Northmen, Marco Polo, Prince Henry of Portugal, Vasco da Gama, Columbus?

(*d*) What problems did Columbus have to meet and how did he meet them?

NOTE.—If there is enough of concrete and stimulating material presented to solve the problem of Why the explorers went away from their own countries, the subject will make a tremendous appeal to children.

Ability to give an intelligent response to the main problem. "*Why did the disagreement between Englishmen in England and Englishmen in America lead to war?*" through being able to answer the questions (or minor problems) given below and to relate them to the main problem:

(*a*) What is the significance of these terms: Country, mother country, colonial possessions?

(*b*) Can you prove that the love of liberty was an attribute of Englishmen on both sides of the ocean?

Knowledge of (*a*) three "first things" in Maryland; (*b*) three famous men of Maryland's past and their accomplishments; (*c*) three important men in Maryland to-day and their accomplishments; (*d*) three distinctive things in Maryland of which we may justly be proud; (*e*) three distinctive things about Baltimore city.

Ability to use understandingly such terms as the following: Taxation, representation, backwoodsman, frontier.

Ability to participate intelligently in activities such as the following: Collect pictures of modern farm implements. Mount them on cardboard, and draw beside each one the old-fashioned way of doing the work that the implement does; collect pictures showing changes in means of transportation and communication and explain the pictures to your classmates.

PROGRAM FOR CURRICULUM CONSTRUCTION IN MASSACHUSETTS

The following extracts from a letter [17] by the supervisor of elementary education in the State of Massachusetts describes the plan of curriculum construction in operation in that State:

Our first step was to form a steering committee to have general supervision of the work. This committee is composed of four superintendents of schools and two members of the department staff. * * *

An inquiry was sent to all superintendents of schools, from which we * * * determined the order in which we undertook to revise the several subjects. The first year about six subject committees were appointed. This number has now grown to 12 and involves about 100 persons. Each subject-committee is headed by a superintendent of schools and includes a normal-school instructor as well as one or more supervisors, principals, or classroom teachers. * * *

These committees are made up so as to be representative not only of different educational positions but of different sections of the State.

Twice or three times a year we call together the steering committee and chairmen of the subject committees for an all-day conference. This gives an opportunity for the chairmen of the subject committees to report progress and to raise any questions that they wish to in connection with the development of their work.

[17] Letter from Burr F. Jones, Supervisor of Elementary Education, State Department of Education of Massachusetts, May 1, 1929.

The subject committees have been supplied with the best courses of study already developed in this and other States, with the results of various research studies in their respective fields, and with any other materials that they have requested. Nearly all of the courses that are being developed have been first issued in bulletin form and distributed throughout the State for the criticism of school officials and teachers and for experimental use in the schools. With the exception of the course in arithmetic, it can not be said that our courses have resulted largely from significant experimentation within the State. We have drawn very liberally from the published experiments of others and have adopted those practices that appear to promise best results.

PROGRAM OF CURRICULUM CONSTRUCTION IN LOUISIANA

The plan of curriculum construction in the State of Louisiana,[18] directed by the division of elementary education of the State department of education, provided opportunity for all teachers and supervisory officials of the State to participate. Two courses of study were developed as a State-wide cooperative undertaking, one in arithmetic and one in language.

In the preparation of a course in arithmetic a statement of preliminary objectives was prepared by a committee of members of the State department of education and sent to the participating units to be checked. The returns were checked by the State committee and organized into objectives by periods of six weeks. Each participating unit was asked to prepare and return to the State committee lists of activities, methods and procedures, type lessons and games suitable for teaching the different objectives agreed upon.

The introductory statement to the course of study in arithmetic evaluates the results:

> Since this course of study is the result of the cooperative efforts of a large number of people, it is necessarily lacking to a certain extent in compact organization such as the work of a single individual would have. However, the committee feels that the course is enriched by this pooling of opinion and that the advantages derived from the pooled opinions more than offset any ill effects.
>
> In some instances, the views expressed on a topic represent a compromise of opinion rather than the unified opinion of the committee. In such cases the opinion of the majority of the committee is used.

In the development of the language course the teachers were asked to prepare a list of objectives for each grade, a rather detailed statement of the work to be done in each grade and type lessons. The combined efforts of participating members of a parish were presented as a parish report. The parish reports were reviewed and organized by the classes in education at the Louisiana State University. After a year's trial the courses were revised by the classes in eduction, and the suggestions of the participating teachers were incorporated.

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[18] State Department of Education of Louisiana. Course of Study in Arithmetic and in Lanaguage. Bulletins Nos. 128 and 131, 1928.

THE PROGRAM FOR CURRICULUM CONSTRUCTION IN NEW YORK STATE

The assistant commissioner in charge of elementary education, the chief of the rural education bureau, and the assistant in rural education of the State department of education in New York organized the following committees and designated their duties as follows:

Duties of committee.—Set up a platform. Adopt a set of criteria by which all work may be evaluated. Determine "form" of curriculum. Work out "dummy" sheets to be used by subject-matter committees. Evaluate materials after they are further revised by new subject-matter committees. Write the manual to accompany the course of study, Part I, or be responsible for it. Help to select the subject-matter committees.

Other duties of executive committee would be: (1) Prepare materials for the experimental edition; that is, edit them; (2) encourage and guide the field tests.

Executive committee will be expected to do the following before accepting any materials finally for the experimental edition:

1. Each member of the committee will score the materials separately on the basis of criteria which they have set up. They will then discuss differences in their scores, and on this basis rescore. If materials are then given a joint score which the committee considers standard (this standard to be agreed upon in advance), the committee shall offer the materials to the best subject-matter specialist or specialist available to be read by such in light of validity of subject matter.

Validity.—The material submitted should first be judged for validity and then "submitted to a few impartial outsiders" for review. If the material justifies experimentation it should be tried out by poorly trained, well trained, and beginning teachers under the following conditions: With little help from district superintendents, in well-equipped schools, under excellent supervision and

mittees and have been accepted by them. In this way it is hoped many persons throughout the State will cooperate in the final product. Many rural teachers who contribute in no other way will be pressed into service to test out the materials when the experimental edition is ready.

Principles of curriculum construction.—A platform of seven principles of curriculum construction devised from the composite statement of the curriculum committee of the National Society for the Study of Education, 1926 Yearbook, with illustrations for their practical application, was presented to the executive committee as a basis for discussion. The principles are:

The curriculum should contain both immediate objectives from child life and more ultimate objectives from adult life.

Materials selected for the curriculum should be approximate life situations, but should include only elements shown by social analysis to be desirable.

The curriculum should provide both for individual differences and for increasing participation in social life.

Selection and organization of instruction materials should be based as far as possible on the results of scientific research.

Reorganization of subject matter should conform to the true learning process without too much regard for existing subject boundaries.

The curriculum should include (*a*) a statement of objectives; (*b*) a sequence of experiences and information necessary to achieve these objectives; (*c*) subject-matter and sources of materials that provide the desired experiences, and (*d*) a statement of the specific outcomes to be expected.

As to specific content, the curriculum should provide situations and experiences requisite to (*a*) develop the necessary skills, informations, correct habits, and right attitudes; (*b*) reflect the social, political, and economic problems of the modern world; (*c*) prepare the child to choose wisely his own life and occupation; (*d*) develop the child's æsthetic nature for proper enjoyment of leisure; (*e*) provide amply for health education.

Suggestions for the guidance of subject-matter committees in the use of the principles quoted above include among others:

The educational principles and the subject matter, presented in the form of objectives, activities, methods in techniques, and desired outcomes, should grow out of, and harmonize closely with the principles of the platform.

There should be a sufficiently wide range of content submitted for each group so that each teacher may select material suitable to the varying needs and abilities of different classes and individual pupils.

Consider the fact that many pupils leave school at an early age either through necessity or of their own accord, and strive to serve these pupils better.

For each definite block of work there should be a time suggestion. The time limit should not be *absolutely fixed*, but will vary from year to year, according to the needs of the various classes.

Provide standards of minimum attainment for each subject, and for the grades within each group of pupils.

PROGRAM FOR CURRICULUM CONSTRUCTION IN SOUTH DAKOTA

The Department of Public Instruction of South Dakota is engaged in an extensive program of curriculum revision. The following statements indicate the comprehensiveness of their plan: [19]

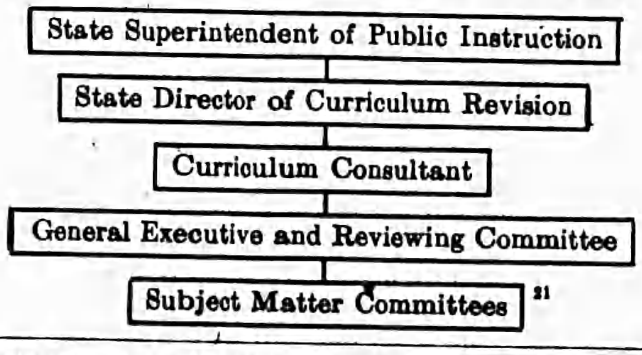
> Believing that by no other method could as much be done for education in South Dakota, the State department of public instruction finally decided to devote the major part of its program to this important work. . . .
>
> While it is true we are very anxious to produce the very best courses possible for the schools of our State, we must not lose sight of two other important factors which should go hand in hand with the production of courses, (1) the participation of the teacher and the training in service, and (2) the desire on the part of educators to increase the interest and knowledge of the lay citizens in present-day educational problems.

During the years 1929–30 members of the executive committees examined and studied available material on the theories regarding curriculum construction. The preliminary report prepared by the executive committees contains résumés of methods of curriculum approaches, grading, principles of curriculum construction, and aims of education. These résumés contain conflicting points of view, and were prepared, as stated, "to serve as guides in the selection of proper educational objectives, content, and method of procedure."

The committee is now engaged in the preparation of a report which will definitely state a philosophy acceptable to the majority of educators of the State.

The following outline of the plan of committee organizations and their duties indicates their method of procedure:

COMMITTEE ORGANIZATION FOR THE ELEMENTARY CURRICULUM REVISION FOR SOUTH DAKOTA [20]



[19] South Dakota. Department of Public Instruction. Department of Curriculum Revision. Preliminary reports on approaches to and theories regarding curriculum construction, general aims, and guiding principles of education. Bulletin No. 1, 1930.

[20] The personnel of the elementary executive committee consists of four superintendents of city schools, three deans and directors of education in colleges, three professors of education, eight county superintendents of schools and the secretary of the State teachers' association. Since the program of curriculum revision is in progress of development the personnel of the other committees can not be specified.

[21] The plan of committee organization indicates the plan of organization of the subject matter content of the curriculum.

Language arts	Number	Social studies	Elementary science and agriculture	Physical education and health	Fine and industrial arts
Reading 1-8 Language and literature. K-8 Spelling 1-8 Penmanship 1-8	Arithmetic 1-6 Mathematics 7-8	Social studies K-8	Nature study K-3 Elementary science. 4-6 General science Agriculture 7-8	Health and games. K-3 Hygiene and games. 4-6 Physical education. 7-8	Art. K-8 Music. K-8 Practical arts. 7-8

Miscellaneous

State P. T. A.	Radio	Young citizen's Citizenship	Character education	Library committee	Tests committee Standard's materials committee

II. Duties of the various committees.

A. General Executive Committee: (1) To study and interpret in the light of the educational needs of South Dakota the various approaches to curriculum construction; (2) to collect, rate, and organize the general aims of education; (3) to collect, rate, and organize the general aims of elementary and secondary education; (4) to formulate guiding principles for elementary and secondary education; (5) to serve as advisor to all subject-matter committees in determining grade placements and time allotments; (6) to review the work of each subject-matter committee and transmit it to the State superintendent for approval; (7) to suggest the form and organization of the course of study.

B. Subject-Matter Committees: (1) To collect, define, rate, and organize the specific aims of the school subjects in the light of the general aims of education, (*a*) for each grade, (*b*) for each subject; (2) to select, define, and organize guiding principles, (*a*) for each grade, (*b*) for each subject; (3) to appoint subcommittees as needed; (4) to appoint special contributing committees; (5) to prepare forms and questionnaires for gathering materials and data from contributing schools; (6) to make use of scientific studies in determining the selection of curriculum content; (7) to assist in correlating the subject with other subjects in the curriculum by submitting brief reports to the director of curriculum construction concerning the activities selected by the committee for the various units of instruction; (8) to include a bibliography of the materials to be used with the subject; (9) to develop illustrative and type lessons for experimental purposes; (10) to provide for a testing program; (11) transmit to the General Executive Committees the productions with all recommendations and helps necessary to successfully carry out the program.

C. Adaptation Committee: (1) To adapt the courses of study to the rural, consolidated, and the small school; (2) to provide methods and materials for these schools.

D. Publicity Committee: (1) To give accurate and interesting publicity to the curriculum construction work in the daily papers, college bulletins, and the S. D. E. A. Journal.

E. Standard Materials Committee: (1) To select a list of the outstanding textbooks in each field; (2) to select a list of outstanding reference material for each subject; (3) to select a list of purposeful teaching material, such as: (*a*) Maps, paper-tests, etc., (*b*) laboratory equipment, and (*c*) supplementary texts.

Chapter V

Educational Values Desired for Children of Elementary School Age

The development of the content of the elementary school curriculum presents a number of vitally related educational problems: (1) The determination of the educational values or outcomes which may reasonably be expected in the elementary school; and (2) the selection and organization of subject matter to assure the realization of those ends. Leaders in the fields of education, philosophy, psychology, and sociology are contributing through experimentation and research to the solution of these problems. Many of the problems which they are investigating may require years for solution, but State educational officers are compelled by the force of necessity to take immediate action. Schools must continue in session while new courses of study are in the making.

An examination of the current literature and State courses of study available for this study indicated that the educational officials of seven States have submitted statements of educational philosophy.[1]

Statements of educational objectives are offered as follows: In 39 State courses of study educational objectives are outlined by subjects with a range in number from 1 to 15. In 37 State courses of study educational objectives are outlined as desired by grades with a range in number from 1 to 15 subjects. In 37 States courses of study the educational goals desired are listed as attainments, minimum essentials, or standards of achievement. These are indicated by grades with a range in number of subjects from 1 to 11. The subjects in which objectives are given most consistently both by grades and subjects are arithmetic, language, and reading.

The wide range in practice in the statements of educational values or outcomes to be attained in the elementary school may be due to a number of causes. There is not a general agreement at the present as to what the educational values to be desired in the elementary school period are, or as to what specific subject matter may best yield the desired outcomes. The question of grade placement is beginning to receive attention both in experimentation and research. The instruments for measuring educational progress and achievement are at present inadequate.

WHAT EDUCATIONAL VALUES ARE EXPRESSED IN STATEMENTS OF EDUCATIONAL PHILOSOPHY?

Statements of the philosophy of education and principles basic to the construction of the curriculum are given in the prefaces or introductory chapters of seven courses of study. An analysis of these

[1] Complete files of State courses of study for each of the States were not available. A list of the current courses of study may be found on pages 76-82.

statements indicates that education is a dynamic process. Children are no longer regarded as passive recipients but as "dynamic, self-reacting, self-determining individuals." Growth is the accepted end of education. This change in educational philosophy is bringing about a change of emphasis in the construction of courses of study from subject matter to childhood and a change in educational goals from the mastery of facts to individual growth. Excerpts from these statements of philosophies of education are quoted:

"Education is not a static condition, but a dynamic process. From birth individuals are required to adapt themselves to the material world in which they live."[2]

"Education no longer seeks to stuff the children's minds with facts, but to prepare them for living. That courses of study, mapped out according to so many pages of this or that textbook, must give way to directions for study and activity, abounding in opportunities for boys and girls to acquire those 'abilities, habits, skills, and powers of judgment' which make for useful and joyful living day by day, is conceded with little or no successful argument to the contrary."[3]

"The consensus of present day educational opinion appears to be that the most important factor in the learning process is the child. In the light of this opinion, the function of the school is to supply an environment of equipment and materials, and the task of the teacher is to direct and stimulate the children in the activities of learning that are made possible by the elements of which their environment is composed. The content of this course represents an attempt to conform to the educational principles above described in so far as the present and future needs of the child are understood."[4]

"Life is the great adventure. Experience is the great guide. Driven by blind instinct, individuals and people may make grievous mistakes. Society for its own protection, needs to interpret and rationalize experience. This is education. * * * In a narrow way, education means to the individual self-realization but not at the expense of the group. Rather the individual grows as an individual in the best sense only through participating in and adding to the efficiency of society."[5]

"Education should lead to an interest in life, all phases of life. Education which is not related to life, to its practicalities and to its beauties, is futile." * * *

"The school exists for the child. Child growth and effective social life provide the basis for all educational effort. The greatest work of the teacher is to minister to the needs of the child in the light of what he is and what he should be."

"Education for childhood and adulthood forms one gradual and continuous process of growth and development within which must be recognized overlapping stages of child growth, each having characteristics of its own and each contributing to preparation for the next and succeeding stages. In its manifestations, therefore, it is dynamic not static, active not passive."[6]

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[2] A Course of Study in Nature Study, Connecticut. Foreword, p. 5.
[3] Journal of the Florida Education Association, October, 1929, p. 13.
[4] Language Activities, Course of Study and Manual of Methods for Elementary Public Schools, Idaho, p. 7.
[5] Curriculum for the Elementary Schools, Minnesota, 1928, pp. 12-15.

WHAT EDUCATIONAL VALUES ARE EXPRESSED IN STATEMENTS OF GOALS FOR THE ELEMENTARY SCHOOL?

Differences of opinion exist as to the importance of stating the large educational objectives and educational values desired in the elementary school period in courses of study. The following illustrate the goals desired for children of elementary school age:[6]

Educational objectives for the elementary schools of Idaho.—The general educational objectives may be stated as the acquisition by the child of the aggregation of attitudes, abilities, and skills by means of which he may become a cooperative, useful, and contented member of society. The particular items in this aggregation have been variously stated. The following are deemed worthy of restatement here: (*a*) Individual behavior as classified by the Committee on Reorganization of Secondary education, under the heading of Cardinal Objectives;[7] (*b*) duties of adult life as classified by Bobbitt:[8] Language activities, health activities, citizenship activities, general social activities, spare-time activities, keeping one's self mentally fit, religious activities, parental activities, unspecialized nonvocational activities, the labors of one's calling.

Educational objectives for the elementary schools of Minnesota.—The "cardinal objectives of secondary education"[9] are listed as objectives for elementary education in the State of Minnesota. While there is considerable agreement in the educational values to be desired in both the elementary and secondary school age, sufficient differences in kind as well as in degree are recognized by the educational officials of Minnesota as of sufficient importance to require a statement of interpretation. They regard the objective designated as "command of fundamental processes" an important objective for the elementary school but "*not* an objective in the *same sense* as are health, civics and social relationships, and recreation. Instead of being an objective related to some main aspect of life * * * it is an objective *not on a par with but merely preliminary to* efficiency in these main aspects of life," and in a comparison of the objectives of elementary and secondary education, they say, "The chief difference is the addition for the upper period of an objective relating to *vocation*, another important aspect of complete living. It is quite appropriate that during the earlier years of life, comprehended by the elementary school period, there should be no *direct* preparation for this relationship."

Educational objectives for the elementary schools of New York.—Educational objectives for elementary education in the State of New York have been formulated as follows:[10] To understand and practice desirable social relationships; To discover and develop the child's own

[6] Idaho Bulletin of Education, September, 1928, No. 8, pp. 6 and 7.
[7] U. S. Bureau of Education Bulletin, 1928, No. 35.
[8] F. K. Bobbitt: How to Make a Curriculum.
[9] U. S. Bureau of Education Bulletin, 1928, No. 35.
[10] The Cardinal Objectives in Elementary Education. Prepared by commission on elementary education of the New York Council of Superintendents, 1928, pp. 13–16.

desirable individual aptitudes; To cultivate the habit of critical thinking; To appreciate and desire worth-while activities; To gain command of the common integrating knowledge and skills; and To develop a sound body and normal mental attitudes.

The interpretation of the foregoing objectives is as follows:

1. To understand and practice desirable social relationships: To understand and practice desirable social relationships implies the influence of the school in the home and the community. Since for any individual the community may be thought of as an ever-widening circle of interest in human affairs, the attainment of right social relationships lays the foundation for the development of right attitudes toward the local, the State, the national, and the international good.

2. To discover and develop the child's own desirable individual aptitudes: There is at present a growing realization that every normal child has something of creative ability in himself. This belief is closely linked with the theory of individual differences. There is a truism, subscribed to in the thinking but not always in the practice of teachers, that the school must be fitted to the child, must be adapted as far as possible to the problems he presents as an individual.

Educational objectives for the elementary schools of West Virginia.—The educational objectives desired for the elementary schools of West Virginia [11] are organized as follows:

1. Health and recreational activities and objectives: (*a*) As a follower of health habits and principles; (*b*) as a promoter of family and community health; (*c*) as an individual using leisure time; (*d*) as a participator and promoter of wholesome community recreations.

2. Economic activities and objectives: (*a*) As a useful and thrifty citizen; (*b*) as a producer and consumer of food; (*c*) as a wage earner.

3. Civic and social activities and objectives: (*a*) As a member of the family and the community; (*b*) as a voter; (*c*) as a participator in the civic and social life of the community; (*d*) as a promoter of community welfare.

4. Intellectual activities and objectives: (*a*) As an individual informed about and thinking about present-day questions; (*b*) as a participator in the intellectual life of the family and community; (*c*) as a promoter of the intellectual life of the community.

5. Esthetic activities and objectives: (*a*) As an individual appreciating the beautiful; (*b*) as a promoter of those things that add to the beauty of the home and community.

6. Ethical activities and objectives: (*a*) As a follower of ethical ideals and principles; (*b*) as a promoter of high civic ideals and worthy civic habits.

WHAT EDUCATIONAL OUTCOMES ARE SOUGHT IN THE SUBJECTS OUTLINED?

There is no consistent unanimity of practice with respect to the statements of educational values desired by subjects. Just as some educational officials regard it important that teachers comprehend the philosophy of education underlying the construction of the curriculum, so they have clearly indicated the educational values to be realized in each subject. Other educational officials have stated the

[11] West Virginia. State Board of Education. State Course of Study and Teachers' Manual for the Elementary Schools, 1929, p. 35.

educational objectives desired in some subjects but not in others, and a few have not included statements of educational objectives. Educational objectives are generally stated for the subject as a whole and for separate grades.

If we are to judge by the statements of objectives offered in State courses of study the conception of subject matter as something to be memorized is passing. Abilities and skills, attitudes and ideals, as well as knowledges, are the outcomes desired from the study of subject matter.

The statements of objectives quoted below indicate that in those State courses of study in which objectives of education are offered subject matter is to be recognized both as the means of education and as an end.

Objectives in arithmetic for the State of Indiana.—The course of study in arithmetic for Indiana is organized by units. Statements of objectives have been prepared for each unit.

GRADE FOUR—UNIT I.

1. Ability to express and interpret numbers.
2. The value, use and relationship of: money, length, weight, dry and liquid measure, temperature, and time.
3. The necessity for mastery of the three fundamentals—addition, subtraction, and multiplication.
4. A knowledge of the partition value of numbers through division.
5. Development of the concept of partition and the expression of this concept as a fraction and the ability to add and subtract unit fractions, of like denominators.
6. Ability to apply arithmetical knowledge to concrete situations.
7. Appreciation of the fact that neatness, form, and accuracy in the use of figures are necessary in correct thinking and expression in arithmetic.
8. Desire to evaluate one's own work.[12]

Objectives in arithmetic for the State of North Dakota.—"Primary grades: The aims to be sought in first-grade arithmetic work are (1) to enlarge, enrich, and clarify the number sense with which children come to school; (2) to see and understand the quantitative relationships with which one naturally comes in contact in the first year; (3) to express oneself accurately in terms of numbers and quantity, in so far as this is necessary in first-grade activities; (4) to learn to count, to read, and to write numbers, as far as their experiences at this age will require; (5) to initiate habits of speed and accuracy in handling and thinking numbers; and (6) to acquire a desire for greater knowledge in the subject." [13]

Outcomes desired in geography for the State of Pennsylvania.—A definition of geography, with a brief statement of the outcomes which

[12] Indiana. State Department of Public Instruction. Bulletin No. 107 B. Tentative Course of Study in Mathematics for Elementary Grades, 1929, pp. 32-33.

[13] North Dakota Elementary Courses of Study, with Suggested Daily Program and Organization for Rural Schools, 1928 (revised, 1929), p. 25.

may be achieved in its study, are offered in the Handbook of Organization and Course of Study, published in 1927 by the Department of Public Instruction of Pennsylvania.

Geography is a scientific study of the relationships between man and the earth which involves certain definite facts and principles. It traces the relationships between the life responses and the influences of a given physical environment. The life responses deal chiefly with man's work and thoughts, and also to a degree with plants and animals. The physical factors which influence life are surface, climate, soil, mineral deposits, and position relative to developed regions. It must be remembered that man not only is adjusting himself to geographic controls, but in increasing measure is modifying the geographic factors in his environment to meet his needs and desires.

The specific contributions which geography lessons make in achieving our democratic ideals are:

Training in ability to use such geographic tools as specimens, pictures, word matter, globes, maps, graphs, and charts.

Habits of turning to people for information; thus the child discovers that people in the home and in the industrial and business world can be of definite assistance to him.

Acquisition of accurate, vital facts and broad geographical principles concerning the lives of people all over the world who after all really are his neighbors. At the same time he is accumulating a geographical vocabulary that is necessary in life.

That broad, scientific attitude of mind whereby the child will weigh the problems placed before him, fairly consider them from all sides, and insist on full information before he arrives at a conclusion (pp. 164–165).

Outcomes desired in geography for the State of Nevada.—The Preliminary Course of Study for the Elementary Schools of Nevada includes a statement of both ultimate and immediate aims in geography:

Ultimate [objective]—An enlightened citizenship.

Immediate aims—[An] intelligent * * * interest in, and sympathetic understanding of, the people of [one's] own and other communities.

* * * Insight into regional geography * * * [and ability to] apply [the] knowledge [in the interpretation of other] regions.

* * * Sympathy for all peoples of the earth.

* * * [Ability] to think accurately and to test other people's thinking.

* * * To appreciate * * * the contributions of each and all races to civilization.

* * * To originate problems [and to draw reasonable conclusions].

Educational outcomes desired in history and civics[14] *for the State of New Jersey.*—

History is a record of human experiences under a variety of conditions. The achievements of mankind have been greatly influenced by conditions of time, place and change. Thus, a study of history means an attempt to understand the life of people. This involves social and economic considerations as well as mere political aspects. We are interested in the development of all the institutions and phases of civilization which have enabled man to live in society.

Teaching civics is essentially a task of making good citizens. In the main there are two things to be accomplished. First, the child must be given a knowledge of the institutions of society and the machinery by which these are carried into

[14] New Jersey. State Department of Public Instruction. The Teaching of History and Civics. For grades—kindergarten to eighth. July, 1927.

action. Second, the child must develop those ideals, attitudes, and habits which will produce the actions of the good citizen. * * * He must get an appreciation of the duties and obligations he owes society in return for which he enjoys so many rights and privileges. Too many citizens, young and old, clamor only for their rights, forgetting entirely the corresponding duties. The course in civics must emphasize both. It must test its effectiveness not by what the child says, but by what he does.

The outcomes which may be realized through these subjects as defined are:

The first four objectives listed below are, for example, very general in their nature and consitute large concepts which a child should get from the study of history and civics. Objectives 5 and 6 represent definite habits and skills which the pupil should obtain. Objective 7 is an example of one of the attitudes which children should get from such study. Objectives 8 and 9 relate more particularly to the outcomes of civics. As the teacher studies her own work she may wish to set up for herself other very definite objectives in the light of her own understanding of what history and civics should mean in her school.

To teach the continuity of civilization and the connection of the present with developments of the past.

To show the gradual enlargement of the child's community in the development of his life, and his relations to this community.

To establish in the child's mind desirable knowledge concerning historical developments.

To develop a faith in the progress of mankind and a desire to assist in this progress.

To produce the habit of careful thinking concerning current problems.

To teach the use of books, maps, indexes, and other historical material.

To create a desire to read history for pleasure.

To teach the fundamental concepts of American Government and the duties of citizens in relation to their Government.

To fix habits of civic action which are advantageous to the common welfare. (P. 13.)

Abilities desired as outcomes in industrial arts in the State of California.—The educational outcomes desired in the study of industrial arts are:[15]

1. Ability to see and enjoy the beauty in everyday things; life's surroundings in nature, in the fine arts of painting, sculpture, architecture, and in industrial products.
2. Ability to select or make attractive and comfortable one's surroundings.
3. Ability to make an intelligent and appropriate selection of dress, so that one is dressed suitably to the occasion and in lines and colors becoming to the individual.
4. Ability to work in cooperation with others.
5. To stimulate to spontaneous and joyful creative work following and correlating with all the school and play instincts of the child.
6. Proper care of materials—our own and others—including the schools.
7. Ability to use ordinary tools efficiently.
8. Ability to make what one wants or needs within the limits of the child's standards; also to make simple repairs. Ability to adapt things at hand to present needs.

[15] A Suggestive Course of Study in Industrial Art for Rural Schools. Bulletin B-1, California State Department of Education, 1928, p. 5.

Aims in nature study for the State of Connecticut.—Educational aims desired in the study of nature in the State of Connecticut are stated as follows:[16]

To know and enjoy nature: Nature study provides a means for city and country children to learn the names and habits of many interesting and beautiful things that are found in gardens, fields, woods, parks, streams, and sky.

Nature study provides a sound and never-ending source of mental activity, keen pleasure, and profitable employment of leisure time.

Mental strain and worry are relieved through forgetfulness of self in the observation and enjoyment of nature and her ways.

A love and appreciation of the beautiful in nature, poetry, and art are direct outgrowths of well-taught nature work.

Habits of keen, thorough, diligent observation and study are developed by endeavoring to identify and to know the habits of birds, flowers, trees, and insects.

More than any other elementary school subject, nature study provides an abiding interest which parents and children may enjoy in common.

To know how man is helped and harmed by nature: Primitive man, for his physicial needs, took directly from nature everything necessary for his food, clothing, and shelter. Nature is still our source of supply for food, clothing, and shelter.

To conserve wild life: Conservation of natural resources and wild life is now considered a national duty. Proper fire protection of forests and State parks, reforestation of waste land to conserve the water supply and soil fertility, are proper subjects for discussion in nature-study classes.

Bird life, which aids man in his fight against troublesome insects and animals, should be known and protected by all.

Beautiful wild flowers and shrubs add to the joy of living. Rare and vanishing varieties must be recognized and preserved from destruction.

To form the habit of looking for cause and effect: Attempting to find the reasons for things develops precision in thinking, an inquisitive mind, and an appreciation of the aid which science has given to man.

To sense the wonders of creation: Observation of the marvels of nature and the precision of her laws leads to recognition of a supreme intelligence and an attitude of reverence and respect.

This respect for natural law can be used to illustrate the necessity for the observance of ethical and social laws.

Aims for the study of language in the State of Alabama.—In the course of study for language[17] general aims are given for the elementary grades. In addition, specific aims for each grade are outlined under the topics Speaking and Writing. For Grade II they are:

Speaking: To preserve the pleasure of free expression of thought; to lead the child to select worth-while experiences to share with others; to give training that will enable the child to acquire added ease and fluency in talking; to increase the child's ability to keep to the point and to tell an experience connectedly; to train the child to use the sentence in talking whenever unnaturalness would not result; to continue training for natural speaking tones, clear enunciation, and correct pronunciation; to eliminate common errors of speech and to increase the

[16] A Course of Study in Nature Study. State Board of Education, Hartford, Conn., 1928, pp. 7-8.
[17] Alabama. Department of Education. Language. A Tentative Course of Study. Grades I-VI. 1927.

habitual use of good English; to develop increased power to enjoy and to reproduce poems and stories that have been learned.

Writing: To increase ability to copy sentences correctly; to develop ability to write a group of simple original sentences when the need arises; to establish habits of using correctly the language forms listed under results to be attained; to spell correctly.

Chapter VI

Organization of the Curriculum in Relation to Working Schedules and Plans for Promotion

The organization of the content of the curriculum determines the organization of working schedules and of plans for the promotion of children. A recognition of this relationship is vital to the effective use of State courses of study in the school.

WHAT FACTORS DETERMINE THE ORGANIZATION OF CURRICULUM CONTENT?

The organization of the content of the curriculum has been that of the distribution of subjects on an 8-grade basis. That organization still exists in the majority of State courses of study. Organization of content by the traditional subjects and on an 8-grade basis may present few problems and may fit well into a school system which employs a teacher to each grade or to two grades, but to the teachers in 1 and 2 teacher schools which enroll from three to eight grades it presents almost insurmountable difficulties.

Programs for fitting an 8-grade pattern of organization of the curriculum to the needs of 1 and 2 teacher schools.—Plans to organize the content of the curriculum for schools in which several grades are taught by one teacher have not been based upon the essential needs of the teachers and pupils in these schools. Attempts to effect the organization of content which would provide the maximal educational progress of children in these schools have been centered upon the possibilities of adaptations in organization and in content.

In the work of adapting the curriculum to the needs of 1 and 2 teacher schools, the 8-grade pattern of organization has been the starting point for work. Efforts have then been directed to the dissection, shuffling, and putting together of segments to effect the combination of grades deemed practicable.

The persistency of this arbitrary division of the course of study into units by grades presents a difficult problem in the education of children in 1 and 2 teacher schools. Grade divisions do not fit the problem of organization peculiar to these schools. The present emphasis upon the need for better grade placement of subject matter from the standpoint of difficulty in learning is in conflict with the

principle of alternation. That alternation can not be accepted as the best plan of organization for the educational program of children in 1 and 2 teacher schools is expressed in the Handbook of Organization and Course of Study published for 1-teacher elementary schools in Pennsylvania in 1927.

> Alternation must be looked on as a compromise measure made necessary in a room having six or eight years of work to be done by one teacher. It has attendant disadvantages and the teacher's task is to overcome some of them by exceptional planning and manipulation. * * * When this is well done alternation will bring into the 1-teacher school that which exists in actual social situations where persons varying in age acquire subject matter without regard to its sequence in time.

The plan of alternation in Montana.—The State course of study,[1] published separately for rural schools in Montana, illustrates a consistent plan of alternation. The plan in brief is presented here:

> The eight grades or years under the old plan will be divided into five classes under the new plan. These classes will be known as: Class E (grade 1), class D (grade 2), class C (grades 3 and 4), class B (grades 5 and 6), class A (grades 7 and 8).
>
> The first and second year pupils (classes E and D) will each be by themselves except in language. The third and fourth year pupils (class C) will be combined in reading, language, and arithmetic. The fifth and sixth year pupils (class B) will take reading, language, arithmetic, history, and nature study together. The seventh and eighth year pupils (class A) will be combined in reading, language and grammar, nature study, agriculture, arithmetic, and history. Eighth-year pupils will be by themselves in civics.
>
> The classes in geography, hygiene, and spelling have a different combination. In geography, the fourth and fifth year pupils (upper division of class C and lower division of class B) will be combined, also sixth and seventh years (upper division of class B and lower division of class A). There will be only one formal class in physiology and hygiene, though some instruction will be given in that subject in the first four years as outlined under language in the new curriculum. The sixth and seventh year pupils (lower division of class A and upper division of class B) will be combined for hygiene and physiology. In spelling all pupils, except those in class E, will be grouped in three classes and will be known as classes C, B, and A. Pupils will be placed in that class in which they can do the best work without regard to ability or standing in other subjects.

The plan of alternation in Wyoming.—A somewhat different plan of organization has been developed in the course in history and geography[2] for the State of Wyoming.

> Courses in history-geography for grades 3 and 4 * * * are organized to be taught on alternate years to both grades 3 and 4 in the rural and smaller town schools. Part I deals with people of other lands and is to be given during the year 1925–26. Part II deals with the history and geography of Wyoming and is to be given during the year 1926–27.

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[1] State Department of Public Instruction. State Course of Study, Rural Schools of Montana, 1926.
[2] Wyoming. State Department of Education. Course of Study for Rural Schools. Social Science Course: Geography, Grades 5, 6, and 7, 1926.

The course in history for the fifth grade is a reading course. It is not intended that there shall be provision on the teacher's program for a recitation in this subject. However, provision should be made on the pupils' program for from 30 to 60 minutes a day for this work. The teacher should arrange to check up on the reading once or twice a week. This may be done at odd times, or during some intermission, or before or after school.

The geography course of study [for grades 5, 6, and 7] is organized into three cycles, of 1, 2, and 3 years, respectively. The subject matter of each year follows:

First and second years: Part I, primitive life and holidays; Part II, other types of primitive life and holidays.

Third and fourth years; Part I, people of other lands and globe study; Part II, history and geography of Wyoming.

Fifth, sixth, and seventh years: Part I, Industries—North American and the United States; Part II, Climate—Europe and Australia; Part III, Races and customs—Latin America, Asia, Africa.

Plans providing flexibility of organizations of subject matter.—Traditional subject matter lines have yielded more readily than grade divisions in permitting flexibility of organization. The theory of the problem method, efforts to integrate related subject matter into units of content to fit the needs of 1 and 2 teacher schools, and the modern conception of education which focuses attention upon growth as the end of education have changed the point of emphasis from subject matter to educational values. When educational values are stated in terms of human values and human activities subject matter requires a flexibility of organization which may obliterate grade lines and may cut horizontally across the traditional subjects to draw from all fields of knowledge and of human activity for source materials.

The elimination of subject matter lines.—The educational activities presented in Teachers' Guide to Child Development and the following statement found on page 450 illustrate the emphasis placed upon need for flexibility of organization of subject matter:

Because it is impossible to know at the beginning of the school year all the relevant factors which influence a child's progress, because tests are not entirely reliable as a single basis for classification, and because the first years in school are peculiarly critical for the child, it is essential that the organization of the elementary school be an extremely flexible one. Such flexibility can be obtained if the principal and teachers resolutely refuse to think of the pupil body in terms of grades, or classes, but always, instead, in terms of individuals.

Elimination of Grade lines.—The suggestion offered for the organization of the subject of the course in nature study for Connecticut disregards grade divisions:[3]

Every pupil is interested in some things in nature's world. It is for the teacher to uncover these interests and help develop them into helpful activities. It is not necessary that all pupils in any room be carrying on the same activities at any given time. In fact, it is much more advisable that the interests of individuals be allowed full play. The resulting variety will make nature study far more appealing as well as richer in content for all.

[3] A Course of Study in Nature Study. State Board of Education, Hartford, Conn., 1928, p. 9.

The alert teacher will see numerous ways in which nature study may contribute to other activities of the school. Similarly, nature study activities will open many opportunities of furthering the English work and other parts of the pupil's program.

While many things in nature may be brought into the school, the school journey is coming to play a larger and more important rôle in nature study.

With these things in mind, this manual is not graded. It is intended to help the teacher discover interests already present, to originate new interests and to develop all such interests into profitable undertakings.

Results of educational surveys repeatedly indicate that the work of children in rural schools ranges from 1 to 2 years below that of children in city schools.[4] These results may imply that curriculum problems in 1 and 2 teacher schools can not be solved by "adaptations" of courses of study designed for the administrative organization of city schools and that a careful analysis of the factors which are involved in the specific problems of 1 and 2 teacher schools is required to determine the organization upon which the curriculum for these schools should be built.

Grouping of related subjects.—The following excerpts from State courses of study and bulletins issued by State departments of education in Idaho and New York indicate a different reorganization of the content of the curriculum:

The following organization of content is proposed for the State of Idaho:[5]

(1) Language activities: Reading, literature, oral expression, spelling, writing. (2) Health and happiness activities: Hygiene, natural science, physical education, music, art, inspirational literature. (3) Social science: History, geography, community civics, civics. (4) Mathematics: Manual arts (including domestic science), physical science.

It does not seem wise to issue courses of study in subjects like reading, language, and writing in separate monographs. This procedure tends to draw an arbitrary line between the activities involved in reading, writing, speaking, and spelling. Reading a sentence, speaking a sentence, and writing a sentence are all related activities. The greatest efficiency can not be attained by attempting to separate these activities logically into their respective parts to the extent of publishing them in separate monographs.

The following is the proposed organization for the course of study for the State of New York:[6] *

English-literature group: Reading-literature, language, penmanship, spelling. Social studies: History, geography, citizenship, character education. Arts group: Music, drawing and related activities, art appreciation. Science group: Nature study, health education, home making. Arithmetic.

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[4] Bureau of Education Bulletin, 1928, No. 15. Educational Achievements of One-Teacher and of Larger Rural Schools, by Timon Covert.

Comparative Pupil Achievement in Rural, Town, and City Schools. M. J. Van Wagenen.

[5] Idaho Bulletin of Education No. 8, September, 1928. Issued by State Board of Education, pp. 5–6.

[6] English-Literature, for Use in the Rural Schools. Curriculum Bulletin No. 1. New York State Department of Education, 1928.

* For a plan for the organization of the content of the curriculum for South Dakota, see p. 39.

WHAT PROGRAMS AND WHAT PRINCIPLES FOR THE CONSTRUCTION OF PROGRAMS ARE RECOMMENDED?

The organization of the daily program of work is vitally related to the organization of the content of the curriculum. It involves the development of a plan of work which is parallel in construction with the plan of organization of subject matter. In 1 and 2 teacher schools it involves the problem of reducing the number of classes and of increasing the amount of time for each class to provide for active, intelligent work on the part of children. It is futile to assume that any group of people can give much constructive thought to problems in 10 or 15 minute periods, or that children can acquire efficient methods of work in studying units of work so small as to require less than 20 or 30 minutes for discussion.

In some of the State courses of study recommendations for program making are based upon the findings of studies in time allotment. In courses of study in which the content is organized on the traditional subject-matter and grade-basis programs of work provide for longer class periods by various plans for combinations and alternations of grades and of subjects. In courses of study in which the content of the curriculum is organized by units which cut across the traditional grade and subject matter lines longer periods of work are secured through the greater flexibility of organization and the integration of subject matter. In courses of study in which a part of the work is organized for individual instruction daily programs of work provide for periods of time in which children may work upon individual problems.

Certain principles underlie the making of a program of work. Programs and statements of principles offered to effect the organization of daily and weekly schedules, provided by the States of Idaho, Maryland, Wyoming, California, Iowa, Illinois, and New Jersey, are included here:

The daily program should be flexible enough, wherever possible, to permit the extension of any interesting subject of study into a language assignment at any time. By far the most appropriate time to commit our thought to writing is immediately following our mental awakening. The occasional encroachment upon the period assigned in the program to another subject will not necessarily prove a fatal casualty to the subject displaced. The purposeful recording of recently received impressions, or purposefully directed research after additional materials at the expense of another subject period on the formal program, will not work irreparable havoc to our system. What may be neglected on any one day may be made up with a little extra effort during the rest of the week, and the pupils will be all the better for the temporary digression.[1]

To be effective a recitation must have reasonable length. One of the great advantages of city graded schools and consolidated schools in rural districts over the 1-teacher rural school is the longer length of recitation time allowed for each

[1] Language Activities. Course of Study and Manual of Methods for Elementary Public Schools. Idaho Bulletin of Education No. 8, September, 1928, pp. 100-101.

subject in the curriculum. In the elementary school, no less than in the higher schools, it takes time to conduct a thought-provoking discussion and bring together all that should go to make up the recitation or to secure the amount of practice that is needed in subjects requiring extended drill. This is particularly true of the major subjects in the higher elementary-school grades. These should have 20 or 30 minutes for each recitation, and in the lower grades the length of time should be in proportion.[8]

Have a definite plan for each recreation period. Begin and end them on time. Supervise play. You are as necessary to a game of volley ball as to a recitation in arithmetic.

Do not waste your Friday afternoons on exercises that are not educative. Only special exercises that enrich the life of the school should be allowed to replace the regular program of studies.[9]

Single group recitations. Experience has shown that for the ordinary oral composition lesson no grouping of pupils in the rural school is necessary or advisable. The entire school should be handled in one unit. This gives sufficient time for individual work. No loss has been discernible for either older or younger pupils in the single unit grouping. Moreover, the single group recognizes what has always existed when the oral composition was interesting enough to be of value—that the whole school was participating as listeners during the entire period.[10]

The subject-matter content of the Teachers' Guide to Child Development is organized on an activity basis. The program submitted for its operation is organized to provide time units for subject group enterprises. It is given here with the summary of the principles employed:

A program[11] illustrating the provision of adequate time for all the various kinds of activities which might be going on simultaneously, together with the contributing and individual-enterprises related to these, has been suggested for rural schools. This program has proved successful in actual trial.

DAILY PROGRAM IN THE CHILD-CENTERED SCHOOL

Time	Monday—Tuesday—Wednesday—Thursday—Friday
9.00	Informal greetings, reports, observations, rhymes, music, events of current interest, informal activities designed to create a mental set conducive to a happy, profitable day.
	ARITHMETICAL ENTERPRISES
9.15	Playstores, banking activities, handling of school supplies, etc. Although rich in arithmetical content through which the child is trained in skills and abilities, such units also yield abundantly in group and individual situations which develop initiative, responsibility, and cooperation. The flexible period provides opportunity for individual instruction.
	HEALTHFUL LIVING ENTERPRISES
10.00	Physical education enterprises, free play, the nutrition program, and adequate relief periods are provided for daily; units of work such as: "The study of milk," "a balanced meal," etc., provide enterprises which have healthful living as a center of interest but provide situations developmental of social and civic attitudes as well.

[8] Workable Daily Programs for 1 and 2 Teacher Schools. Maryland School Bulletin, Vol. VI, No. 11, May, 1925, p. 4.

[9] Texas Course of Study for Elementary Grades. Bulletin No. 226, Vol. III, No. 4, September, 1927, pp. 14–15.

[10] Wyoming Course of Study for Rural Schools. English course, 1927. The Wyoming Educational Bulletin, August, 1927, p. 41.

[11] Prepared and contributed by Helen Heffernan, chief, division of rural education, State Department of Education. In Teachers' Guide to Child Development, by California Curriculum Commission, pp. 354–358.

DAILY PROGRAM IN THE CHILD-CENTERED SCHOOL—Continued

	Monday—Tuesday—Wednesday—Thursday—Friday				
	LANGUAGE ARTS [1]				
10.50	Oral and written composition, spelling and writing develop from activities rich in opportunities for expression, as the writing of a play to be presented in the auditorium period, puppet shows, the school newspaper, etc. The period should provide opportunity for literary discrimination and original expression; the long period provides for concentration of effort and attention according to individual interest and need.				
12.00	LUNCH, REST, AND DIRECTED PLAYGROUND ACTIVITIES				
1.00		Avocational activities			
	Music: Activities, music appreciation, rhythm, harmonica, band, orchestra, etc.	Nature club, school museum, aquarium, gardens, terrarium.	Creative art and constructive activities in pottery, weaving, painting, drawing.	Use of auditorium for music, dancing, dramatics, projects, stagecraft, related to class activities.	Civics club, committees responsible for various phases of school life.
1.50	RECREATION AND REST				
2.00	Reading groups: Library activities				
	Group organization on the basis of reading ability provides opportunity for remedial work with children having reading deficiencies and library guidance to superior readers. The quiet reading period may contribute to the development of information needed in the class activities related to social science, avocational, or health or other interests.				
2.50	RECREATION AND REST				
3.00	Social studies activities.	Social studies activities.	Free creative work period.	Social studies activities.	Shop enterprises.

[1] In 1-teacher schools the program during this period should include special activities for the younger children abundant in reading experiences. Much interesting and profitable material for self-directed activities for the younger children is indispensable. See page 591.

The following provision is suggested to meet the needs of children in 1-room schools: [12]

In the 1-room school, where there is a greater divergence in both mental and chronological ages, it will undoubtedly be necessary to hold separate discussion periods for the older children, and also to plan definitely for a larger range of educative individual work, as well as for separate periods of drill for older and younger groups. But the teacher's problem of organization is simplified because the activity provides a common center of interest and a stimulating urge to effort. Such a school becomes a little typical community, in which each contributes according to his ability, and is classified on the basis of his needs. The benefits of work in association with others, as well as those of individual work, are thus preserved.

A SUMMARY [13]

Let us summarize the principles of making a good daily program so that we may have them all together before us:

1. There should be provision for long general periods for related activities rather than many very short periods. These time allotments should be elastic.

[12] Teachers' Guide to Child Development. By California Curriculum Commission. Sacramento Calif., 1930, pp. 367–368.

2. There should be opportunity for children to share in planning the daily program. This may be done through daily conference periods in which children: (*a*) Develop interest, (*b*) make plans, (*c*) select materials, (*d*) evaluate work, (*e*) discuss next steps.

3. There should be provision for encouraging wholesome living through: (*a*) Daily time for physical activities and free play, (*b*) daily times for mid-session lunches and rest, (*c*) time for developing good health habits.

4. There should be provision daily of opportunities for creative self-expression through: (*a*) Freedom to follow individual worth while desires. Time for free activity of children. (*b*) Enlargement of experiences and opportunities for spontaneous expression after each new experience. (*c*) Sustaining real motive in all children's work. (*d*) Rich experiences of enjoying what is beautiful. Feeling deeply the pleasures of these. (*e*) Withholding lessons in the techniques of "art work" until child has experienced need for these. (*f*) Watching the child's *growth* rather than the *product* of his efforts.

5. There should be provision for enjoyment and growth in appreciation of the arts.

6. There should be provision for acquaintance with, and enjoyment of, the natural world.

7. There should be provision for acquiring the subjects and practicing the skills needed to carry group and individual activities further.

8. There should be provision for balance and variety in the day's activities.

The course of study for the schools of Iowa includes a program which is organized with the week as a unit of time, in order to permit the teacher a greater elasticity than is possible in a daily program. An introductory paragraph [14] explains that—

In the program here given for a school of eight grades the teacher's time has been (1) divided approximately equally among the different grades, (2) apportioned in accordance with the findings of scientific research, (3) distributed with a view to making effective teaching possible.

[14] Iowa Course of Study for Elementary Schools, 1928, p. 13.

A WEEKLY TEACHING PROGRAM FOR AN EIGHT GRADE SCHOOL

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9.00–9.15	Opening exercises and music				
9.15–9.20	Individual instruction and seatwork supervision				
9.20–9.50	Class instruction in reading for Grades I, II, and III—10 minutes each Seat work in history for Grades IV to VIII, inclusive				Seat work in reading, Grades 4–8
9.50–9.55	Individual instruction and seat work supervision				
9.55–10.25	Grades 4 and 5—15 min. Grade 7—15 min.	Grade 6—15 min. Grade 8—15 min.	Class instruction in history Grades 4 and 5—15 min. Grade 7—15 min. Seat work in history for grades not receiving class instruction	Grade 6—15 min. Grade 8—15 min.	Class instruction in reading— Grades 6, 7, 8—20 min. Grades 4, 5—15 min. Seat work in reading for grades not receiving class instruction
10.25–10.35	Physical education for all				
10.35–10.40	Recess				
10.40–10.45	Individual instruction and seat-work supervision				
10.45–11.40	Class instruction as follows: Phonics—Grades 1 and 2—5 min. each. 6th arith.—15 min. 7th arith.—15 min. 8th arith.—15 min.	Numbers—Grades 1 and 2—10 min. 3d arith.—15 min. 4th arith.—15 min. 5th arith.—15 min.	Phonics—Grades 1 and 2—5 min. each. 6th Arith.—15 min. 7th arith.—15 min. 8th arith.—15 min.	Numbers—Grades 1 and 2—10 min. 3d arith.—15 min. 4th arith.—15 min. 5th arith.—15 min.	Phonics—Grades 1 and 2—5 min. each. Arith.—Grades 3–8 as needed.
	Seat work in arithmetic for grades not receiving class instruction				
11.40–12.00	Class instruction in spelling as follows: Group I—Grades 3 and 4. Group II—Grades 5 and 6—10 min. each.	Group III—Grades 7–8. Supervised study—10 min. each.	Group I—Grades 3 and 4. Group II—Grades 5 and 6—10. min. each.	Group III—Grades 7 and 8. Supervised study—10 min. each.	Groups I, II, III as needed.
	Seat work in spelling for grades not receiving class instruction				
12.00–12.20	Supervised lunch				
12:20–1:00	Supervised play				

1.00–1.05	Individual instruction and seat-work supervision				
1.05–25	Class instruction as follows: Reading—Grades 1 and 2—10 min. each. Reading—Grades 3–8.	Language—Grades 1 and 2—20 min.	Reading—Grades 1 and 2—10 min. each Seat work as follows for grades not receiving class instruction Language—Grades 3–8, inclusive.	Language—Grades 1 and 2—20 min.	Reading—Grades 1 and 2—10 min. each.
1.25–1.30	Individual instruction and seat-work supervision				
1.30–2.15	Class instruction as follows: Reading—Grades 4 and 5—15 min. Drawing—All grades—30 min. Reading—Grades 3–8.	3d language—15 min. 6th language—15 min. 8th language—15 min.	4th language—15 min. 5th language—15 min. 7th language—15 min. Seat work as follows for grades not receiving class instruction Language—Grades 3–8.	3d language—15 min. 6th language—15 min. 8th language—15 min.	4th language—15 min. 5th language—15 min. 7th language—15 min.
2.15–2.30	Recess—supervised play				
2.30–2.35	Individual instruction and seat-work supervision				
2.35–3.05	Class instruction as follows: General lessons—Grades 1, 2, and 3 combined—15 minutes Hygiene—Grades 4 and 5—15 min. Seat work in hygiene for grades not receiving class instruction	Hygiene—Grades 6, 7, and 8—15 min.	Hygiene—Grades 4 and 5—15 min.	Hygiene—Grades 6, 7, and 8—15 min.	Citizenship—all grades
3.05–3.10	Individual instruction and seat-work supervision				
3.10–4.00	Class instruction as follows: 6th Geog.—15 min. 7th Geog.—15 min. 8th Geog.—20 min. or Civics. Seat work in geography for grades not receiving class instruction	4th Geog.—15 min. 5th Geog.—15 min. Writing—All grades—20 min.	6th Geog.—15 min. 7th Geog.—15 min. 8th Geog.—20 min. or Civics.	4th Geog.—15 min. 5th Geog.—15 min. Writing—All grades—20 min.	Vocational subjects for all.

The program prepared for the rural schools of Illinois provides very specifically for a distribution of time for individual instruction and regular class work as outlined in the course of study.

PROGRAM FOR STUDY AND CLASS AND INDIVIDUAL INSTRUCTION [1]

Begin	Time	Subject	Grades	Kind of instruction	Pages in course
9.00	10	General exercise	All	Music, current events, etc	327-329.
9.10	20	Reading	(5, 6) (7, 8)	Individual, to classes that will not recite.	127-153-187-213-260.
9.30	30	do	1, 2 (3, 4)	Class daily	57-83-104.
10.00	15	do	(5, 6) (7, 8)	Class to those that did not have individual.	127-153-187-213-260.
10.15	15	Writing and spelling	All	Class on alternate days	78-123-168-234-45-169-199-325-282.
10.30	15	Rest		Directed play	
10.45	20	Arithmetic	4, 5, 6 (7, 8)	Individual to classes that will not recite.	139-155-190-215-262.
11.05	20	Reading and numbers.	1, 2, 3	Class daily	57-83-104-67-88-110.
11.25	35	Arithmetic	4, 5, 6 (7, 8)	Class to those that did not have individual.	139-155-190-215-262.
12.00	60	Noon		Lunch and games	
1.00	20	Grammar	5, 6, 7, 8	Individual to those that will not recite.	162-194-219-268.
1.20	15	Reading and language.	1, 2	Class daily	57-83-71-95.
1.35	10	Language	(3, 4)	do	117-132.
1.45	30	Language and grammar.	5, 6, 7, 8	Class to those that did not have individual.	162-194-219-268.
2.15	15	Physics and civics	(5, 6) (7, 8)	Class or individual as desired	174-202-253-301-242-288.
2.30	15	Rest		Directed play	
2.45	15	Constitution and nature study.	(1, 2) (3, 4)	Class daily	70-94-79-101-132-142.
3.00	20	History and geography.	(5, 6) (7, 8)	Individual to those that will not recite.	171-199-236-282-182-209-257-305.
3.20	20	History	(5, 6) (7, 8)	Class to those that did not have individual.	171-199-236-282.
3.40	20	Geography	(5, 6) (7, 8)	do	182-209-257-305.
4.00	10	Dismissal			

[1] A program for study and instruction in one-teacher schools. By Francis A. Blair, 1926.

The schedule of work prepared for the 1-room schools of New Jersey is divided into 16 large unit periods. It is quoted here with excerpts from the introductory statement: [15]

This schedule makes provision for ample and uninterrupted time for consideration of each subject by means of two kinds of study, namely, individual and class study. * * *

Instead of chopping the time into 10 or 15 minute periods which have no relation one to the other we have provided for periods approximately an hour devoted to one subject. During this period the teacher's time is divided according to the needs of her class. The classes which are not receiving teacher direction are engaged in activities connected with that subject.

[15] Excerpts from "Educative Seatwork—Schedule Making." Department of Public Instruction, New Jersey, pp. 26-29.

What is the value of unification?

(*a*) There is a great saving of time, since both teacher and pupils have an opportunity to complete a larger piece of work.

(*b*) It is comparable to normal life situations in that the pupils can finish a problem and turn naturally to another piece of work.

(*c*) It permits a teacher to organize her work so as to develop more effectually desirable habits and attitudes.

(*d*) The teacher can effectively distribute her time so as to correct group deficiencies in certain subjects.

SCHEDULE—ONE-ROOM SCHOOL—GRADES 1 TO 8, INCLUSIVE

Time	Minutes	Grades (1-2) D	Grades (3-4) C	Grades (5-6) B	Grades (7-8) A	Type of activity
8.40-8.55	.....	Pre-school period—All				
8.55-9.10	15	Morning exercises—Bible reading, singing, health inspection, flag salute, etc.				
9.10-9.40	30	*Language and reading (daily).	*Language and reading (daily).	Study reading and English.	Study reading and English.	Class and individual.
9.40-10.00	20	Seat work to correlate with reading.	Seat work to correlate with reading.	*Reading.	*Reading.	Class and individual.
10.00-10.05	5	Five minutes physical training—All				
10.05-10.30	25	Language seat work.	Language seat work.	*English.	*English.	Class and individual.
10.30-10.40	10	Recess—Directed play				
10.40-11.00	20	*Number and reading (1-2-3).	Prepare spelling.	Prepare spelling.	Prepare spelling.	Class—daily.
11.00-11.20	20	Arithmetic. Seat work.	*Spelling and writing (3-4).	*Spelling and writing.	*Spelling and writing.	Class—daily.
11.20-12.00	40	Dismissal.	*Arithmetic.	*Arithmetic.	*Arithmetic.	Class and individual.
12.00-1.00	60	Noon—All				
		Schedule—P. M.				
1.00-1.15	15	Music—All				

1.15–1.35	20	*Geography and reading.	*Geography.	Working on geography problem.	Working on geography problem.	Individual and class.
1.35–2.00	25	Industrial seat work. Nature work.	Group work on geography problems.	*Geography.	*Geography.	Individual and class.
2.00–2.15	15	*Spelling and grammar 1–2–3, handwriting.	Group work on historic problems.	Individual work on historic problems.	Individual work on historic problems.	Individual and class.
2.15–2.30	15	Physical training—All—Friday hygiene				
2.30–3.30	60	*Dismissal.	*History.	*History.	*History and civics.	*Individual and class.

* Signifies the groups with which teacher will work.

WHAT PLANS ARE OFFERED FOR THE PROGRESS AND PROMOTION OF CHILDREN

Annual promotions of children are presupposed in courses of study organized on an 8-grade basis. With few exceptions children attending 1 and 2 teacher schools are expected to be promoted at the end of a school year. Educational progress of the majority of children in rural and graded schools has not been seriously interfered with by annual promotions.

Recent emphasis upon the need of meeting individual differences of children and of the seriousness of the mental effects of failure of promotion has centered attention upon the need of adjusting the curriculum to the needs of children rather than the adjustment of children to the curriculum. The complexity of the problems of promotion and progress in rural schools is further intensified by the additional difficulties involved in short school years and irregularity of attendance. State educational officials and educational leaders who are familiar with the needs of children in 1 and 2 teacher schools recognize that children attending schools less than six or eight months can not satisfactorily complete the work outlined for a school year of nine months, and yet few plans have been developed to meet this situation in these schools.

The following statement from the Eightieth Report of the Public Schools [16] of Missouri indicates the actual range in length of the school year in that State.

There are 7,841 one and two room schools in Missouri. In these schools the length of the school year is as follows: 53 districts have less than 4 months per year; 222 districts have less than 6 months per year; 873 districts have less than 8 months per year; 6,430 districts have exactly 8 months per year; 263 districts have more than 8 months per year.

Differences in length of school year, or the existence of 1 and 2 teacher schools wherever physical conditions permit consolidation, can not be regarded as permanent, but as long as these conditions exist they present difficult problems in the organization of the curriculum with respect to the promotion and progress of children. The following extracts indicate types of adjustments offered for short-term schools in the States of Alabama and South Carolina:

Promotion plans for short school terms.—This course of study is made for a school term of approximately * * * nine months. Schools with shorter terms can not meet the requirements listed.

The plan herein suggested proposes that, in 6-month schools, four years instead of three be required for the completion of the first three grades; and that after the third grade each class make a grade a year by stressing the most essential parts of the year's work and by omitting some of the less important features.

[16] Eightieth Report of the Public Schools of the State of Missouri, June 30, 1920, p. 121.

This is necessary to prevent undue over-ageness which causes many pupils to leave school and is extremely detrimental to the social adjustment and control of those who remain. By this plan a pupil covers in 7 years the most essential parts of the work of the first six grades.

Since this is an abbreviated course, pupils who enter the junior high school from the short-term elementary schools will have to be placed in the system where they can do the work. A few exceptional pupils may be able to carry the regular junior high-school work. The majority will probably have to take the sixth grade over upon entering a long-term school. (Course of Study for Elementary Schools, Alabama Department of Education, 1926, pp. 8, 9.)

In the assignment of the amount of work to be accomplished, by a grade in school, a course of study contemplates in this State a session of nine months (p. 194).

If work is assigned that should require pupils ordinarily nine months to accomplish, it is safe to assume that pupils who are in school not more than six or seven months can not do the same amount of work. The manual, therefore, recommends that the finishing of the work of any grade be made the basis of promotion, rather than the school year. For this reason, in the essential subjects the manual suggests the knowledge that a pupil should have of each subject in his grade before being promoted to the grade next higher. If this policy is pursued in a short-term country school, it will of course take the pupils longer to finish the country school; but the work of the school will be done much more thoroughly, and the real education of the children far better promoted. (South Carolina Elementary School Manual, 1928, p. 195.)

State and county examinations, teachers' marks, and other criteria for determining promotion.—In the California curriculum study, State and county examinations were examined. In the judgment of the commission they create a body of extracurricular subject matter which requires teachers to spend a considerable amount of time in drilling upon test questions which could be spent to better advantage. To illustrate. An examination of the words commonly used in the State and county spelling examination "less than 25 per cent of the examination words are found in markedly California lists, only 17 per cent in the thousand common words determined by Ayres in his study of adult vocabularies, and only 36 per cent in the list of 3,009 commonest words found in the extensive investigations by Horn." Further, they fail as criteria for determining promotion. "By means of typical county examinations used in California it has been demonstrated that pupils who have 'failed' have actually achieved far superior results in the same examination than others who have been 'passed' as thoroughly satisfactory students."

Recommendations with respect to promotion.—The California Curriculum Commission recommends that tests upon universal minimum essentials be devised to serve as a basis for uniform systems of promotion; that if there be specific facts of subject matter which pupils must know for promotion they be designated in the curriculum; that investigations should establish standards for achievement in reading in grade 1, and that "whenever there is a reasonable chance for a pupil to make a success in a higher grade or to make more progress in a

higher grade than in his present one he should be given the opportunity to pass forward to that grade." [17]

In the Florida State survey [18] this statement appears:

> * * * There are no definite policies governing the use to be made of non-promotion. Best present day practice in the use of retardation does not favor requiring a child to repeat a grade unless there is definite evidence that repeating will profit him more than going on with his class.

Achievement studies contribute data for developing bases for promotion.—That more satisfactory plans and bases for promotion may be developed is indicated in the recommendations of three studies [19] dealing with the question of norms and standards of achievement for promotion.

Grade norms are unsatisfactory criteria for promotion.—In a comparative study of pupil achievement in Minnesota, Van Wagenen shows the ineffectiveness of grade norms as satisfactory criteria for promotion. He says:

> On the usual standardized test the norm is a number without any significance in itself. It fails to suggest how much a pupil has accomplished except in relation to the mid pupil in a certain grade. A score is needed that will give some notion of the pupil's ability, some idea of how complex is the information he possesses, or how intricate are the problems he can solve.
>
> With the wide range in mental ability that we have found in the seventh and eighth grades, surely we should not expect every pupil in the grade to approximate the norms for this grade. * * * For the individual pupil, not grade norms but mental norms are actually needed. Only differences between attainments and mental age norms are significant for diagnostic and remedial work.
>
> Equally striking and even more significant is the wide range in mid-scores for school systems with the same grade mid-mental age. * * * In reading for interpretation the range is even wider—at several mental age levels it is equivalent to three years or more (p. 120).

He states that grade norms represent traditional processes in that they indicate attainment of pupils of different mental ages with present time allotment and the present methods of instruction. He says:

> An achievement survey may assist a superintendent or principal in discovering what tendencies actually exist in a school. The discovery of a difference, however, does not necessarily argue for a change in the direction of conformity to the general trend, but rather it should stimulate thought and discussion among the members of the school staff.
>
> * * * Evidently grade norms have played a larger part in determining the achievement of pupils in different school systems than their mental ability despite the important rôle played by mental ability within each school system (p. 124).

Present practice in grade classification and promotion is unsatisfactory.—The Survey of Achievement of Oregon Pupils in the Funda-

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[17] California Curriculum Study, p. 330.

[18] Educational Commission and Survey Staff. Report to the Florida State Legislature, 1920, p. 218.

[19] Comparative Pupil Achievement in Rural, Town, and City Schools, by M. J. Van Wagenen. A Survey of Achievement of Oregon Pupils in the Fundamental Subjects, by Homer P. Rainey. Oregon Spelling Survey. Oregon State Teachers' Association.

mental Subjects indicates that present practices and assumptions relating to grade promotion plans are questioned. The conclusion drawn is expressed in this statement:

> The idea of mastery of achievement has been almost lost sight of in the perfecting of our graded system. We have almost completely substituted the concept of adhering to the system for the fundamental objective of mastery. We think of a child's education largely in terms of the grade he is in rather than what he has achieved or mastered (p. 139).

Three case studies from the survey which illustrate actual practice in the classification of pupils in the State of Oregon are quoted:

> Case 1. Two children in the Patterson School in Eugene are classified in the 6B grade in reading. One of these children has a "reading age" of the average child of 8 years and 10 months. The other has a "reading age" of 15 years and 11 months. Thus, these two children are seven educational years and one month apart in their achievement, but are classified in the same half-grade.
>
> Case 2. Two children in arithmetic in 6B grade in the South Baker School. One has an "arithmetic age" of 9 years and 2 months. The other has an "arithmetic age" of 14 years and 6 months, a difference of 5 years and 4 months.
>
> Case 6. There are two children in the 6A grade in the North Baker School whose achievement in language usage is 9 years and 7 months.

The report concludes: "These wide ranges in educational achievement are evidence of the fact that our educational program is designed for the mass and fails to reach the individual child."

Standards for promotion in spelling are below average attainments.—The Oregon State spelling survey raised two questions:

> 1. What is the present pupil proficiency of grades 3 to 8 in spelling the most common words of everyday life which appear in the spelling text for their respective grades?
>
> 2. What general level or degree of pupil proficiency in the spelling of these words have we, on the average, a right to expect?

The conclusion drawn in answer to question 1 is that for the State as a whole, pupils by grades are able to spell the following percentage of the words which they have studied during the year:

Third, *81.43.*	Fifth, *83.16.*	Seventh, *78.68.*
Fourth, *81.02.*	Sixth, *81.97.*	Eighth, *87.24.*

The report continues:

> There is in educational procedure in the teaching of habits and skills in the tool subjects, a well-recognized principle known as the "law of diminishing returns." * * * Public schools are justified in recognizing such a law for two reasons: First, because the results obtained from the further pursuit of such skills or habits will not compensate for the extra time and effort expended; second, to develop in the average individual a skill or habit much beyond the point required by his needs in subsequent life is largely waste effort. * * *
>
> It has been common in educational procedure to establish norms of expectancy in certain subjects by taking averages made by a large number of pupils over a wide area for a given grade. * * * *The fallacy of establishing a norm in this manner to set as a desirable standard for attainment lies in the involved assumption*

that present day pupils on the average spell well enough, an assumption we have no right to make.

The results of the State survey show that the average business man was able to spell, offhand, 87 per cent of the most common words of the everyday vocabulary. The eighth grade of the State 87 per cent; high-school seniors knew 91.2 per cent; teachers knew over 95 per cent. A number of schools in the State made averages per grade above 90 per cent.

In the face of these results the committee believes the standards should be raised above 70 per cent. It further believes there is ample reason at the present time for placing the *minimum requirement for the completion of a grade at least as high as 85 per cent.* The average on such lists should probably be 90 per cent or above.

The question of criteria for the determination of the educational progress of children is undetermined. State and county examinations are required, but the report of the California curriculum study (p. 24) points out that the examination questions become in fact effective curriculum materials and fail as criteria for determining the promotion of children. Suggested standards are listed as goals, but teachers have indefinite and variable criteria for determining attainment. Recommendations for the use of achievement tests are offered, yet grade norms are regarded unsatisfactory.

Summary

The process of curriculum construction is constantly developing. It is engaging alike the attention of lawmaking bodies, of educational officials, and of experts in all fields of education.

As a result of present achievements and of work under way it is evident that the time is not far distant when a more scientific procedure in curriculum construction will be realized than that which obtains at present.

Among some of the present well-known policies regarding curriculum building which are being seriously questioned by the investigators referred to are (*a*) the determination by law of such problems of the curriculum and its construction as may be modified in the light of investigation and experimentation; (*b*) the intermittent revisions of the curriculum as against the policy of continuous attention to its revision; and (*c*) the organization of the content of the curriculum around State-adopted textbook.

Likewise the assumptions, (1) that the traditional organization of the content of the curriculum by subjects and by grades is essential to all types of schools, and (2) that the annual promotion by grades is the most effective plan for facilitating the educational progress of children, are being challenged.

Certain procedures in relation to the process of curriculum construction are recognized in practice in some States, such as, analyses of existing educational practices in state-wide educational surveys, increasing participation by all educational agencies of the State in

programs of curriculum revision, the utilization of the findings of research in the selection of subject matter and teaching procedures recommended, and the utilization of the experience and judgment of specialists in education and of classroom teachers in the experimental try-out and development of curriculum materials.

Basic materials and suggestions are available for the guidance of those who are responsible for State programs in elementary education. Among them are the findings and methods employed in State educational surveys, in research studies dealing with problems in the educational process, and in the development of plans and procedures for effective work in state-wide curriculum committees. The development of new materials of instruction and new units of organization of curriculum content may eventuate in educational practices which will more nearly meet the needs of individual children and will contribute to more flexible programs of promotion.

It appears that some States have sufficient available data and satisfactory educational facilities to determine by experiment the time distribution and the organization of curriculum content essential to the educational program of children in 1 and 2 teacher schools.

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