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AN ABSTRACT OF THE REPORT ON THE PUBLIC SCHOOL SYSTEM OF MEMPHIS, TENNESSEE

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AN ABSTRACT OF THE REPORT ON THE PUBLIC SCHOOL SYSTEM OF MEMPHIS, TENN.

During May and June, 1919, the United States Bureau of Education, under the direction of the Commissioner of Education, made a survey of the public-school system of Memphis, Tenn.[1] This survey included a study of the social and industrial conditions of Memphis, recommendations in regard to the organization, supervision, and financing of the schools, an analysis of the building problem, as well as special studies of the work of the elementary schools and high schools, of civic education, health, science, music, and industrial arts.

The complete report of the survey, giving not only a full appraisal of the school system, but also detailed recommendations in regard to organization, curriculum, etc., is now being published by the Bureau of Education. Such a report is of course essential for the teaching force and administrative officers in the successful carrying out of any changes recommended, but experience has proved that the average layman is not interested in detailed, technical educational reports and will not take the time to read them.

On the other hand, it is obviously necessary that the average citizen have an intelligent understanding of school conditions and school problems, since no public-school system can function successfully except as it is founded upon the educated public opinion of the masses of the people. For these reasons the Bureau of Education is publishing not only a detailed, more or less technical, report of the Memphis school survey, but also the present brief abstract of the report for the use of the average citizen who is interested in gaining a

[1] To assist him in making this study, the commissioner appointed the following commission: Frank F. Bunker, specialist in city school systems, Bureau of Education, director of the survey; Thomas Alexander, professor of elementary education, Peabody College for Teachers, Nashville, Tenn.; William T. Bawden, specialist in vocational education, Bureau of Education; Hiram Byrd, specialist in health education, U. S. Public Health Service; Elmer W. Christy, supervisor of industrial education, public schools, Cincinnati, Ohio; Fletcher B. Dressler, specialist in school architecture, sanitation, buildings, and equipment, Bureau of Education; Arthur W. Dunn, specialist in civic education, Bureau of Education; Will Earhart, supervisor of music, public schools, Pittsburgh, Pa.; Alice Barrows Fernandez, specialist in social and industrial problems, Bureau of Education; Florence C. Fox, specialist in primary grade education, Bureau of Education; Ada Van Stone Harris, director of elementary practice teaching, public schools, Pittsburgh, Pa.; Carrie A. Lyford, specialist in home economics, Bureau of Education; F. A. Merrill and John L. Randall, specialists in school and home gardening, Bureau of Education; Willard S. Small, specialist in school hygiene and physical education, Bureau of Education; George B. Twiss, professor of secondary education and State high-school inspector, Ohio State University.

general knowledge of the findings of the survey, and whose intelligent interest is such an important factor in the work of the teaching force of the city, the school officers, and the board of education.

Part I.

QUESTIONS WHICH THE PEOPLE OF MEMPHIS SHOULD RAISE IN REGARD TO THEIR SCHOOLS.

Since the public schools were created by the people to meet the needs of the children and of the community, it is essential that these needs be understood before the school system can be fairly appraised. Consequently the survey staff conducted not only an investigation of the schools, but a survey of the social and industrial conditions of Memphis as a basis for determining the needs of the community and the extent to which the schools were meeting those needs. The survey showed that for the good of the children and the future growth and welfare of Memphis the people of the city ought to raise the following questions in regard to the schools which they support and to which they send their children:

1. Are the schools educating the children so that they can meet life as it is to-day, with intelligence, self-reliance, courage, and resourcefulness? Are the schools organized in the light of changed social and industrial conditions, or are they still conducted as though such changes had not taken place?

During the past 50 years Memphis has not only fulfilled its promise of becoming the great distributing center of the central South, but it is also becoming a large industrial city. Its population is increasing rapidly, and it is made up of people from all parts of the country. A questionnaire sent to the parents of public-school children showed that 10,352 of the 11,701 parents who replied to the questionnaire came from 43 different States in this country. Although about two-thirds were born in the Tri-States—Arkansas, Mississippi, and Tennessee—only 183 were born in Memphis itself. Nearly one-third were born outside the Tri-States, and of this number there were nearly as many from the West and North (1,750) as from what are commonly known as the Southern States (1,842). Of the total number of parents, 1,429, or 12 per cent, were foreign born, the largest groups being Russians, Italians, Germans, and Austro-Hungarians.

In other words, the population of the city is now heterogeneous, mobile, attracted by the commercial prosperity of the town, and with few common bonds aside from the desire to make a living. It is a group with various inheritances, different habits of thought, and different customs of living and working and of enjoying life. This situation, coupled with the fact that Memphis is becoming a large industrial as well as distributing center, means that the city soon will be, in fact already is, confronted with the complicated civic, industrial, and social problems with which large industrial cities have been wrestling for years, and which have to be recognized in the development of any adequate educational program. For one thing, it means that the city is in danger of splitting up into a collection of small communities as unrelated in sympathies and interests as though they were geographically hundreds of miles apart. This has already taken place in such cosmopolitan cities as New York, Chicago, and Detroit. In these cities it was only after those conditions had become fixed that settlements, civic clubs, and community plans came into existence in the attempt to unify the diverse elements in the community and interpret them to each other.

Memphis has the opportunity to profit by the experience of these cities and to anticipate and prevent this disintegration of the city into separate units unrelated to each other by any common bond. But she will be obliged to act soon, for the separation of the different elements is already apparent. For example, when the number of foreign-born parents was tabulated according to schools and compared with the total enrollment in the schools, it was evident that the largest proportion of foreign-born parents is found in the Smith School, the Leath, Cummings, and Merrill. In other words, the foreign element is found, as is usually the case, in or near the business section of the city, with the exception of Cummings in the southern section, with a total of 108 foreign-born parents and a school enrollment of 677.

A further indication that the city is already tending to fall apart into different class groups is shown by the study of the occupations of the white fathers. Those of the same occupational groups tend to congregate in the same districts. For example, A. B. Hill, Lauderdale, Riverside, and St. Paul Schools, have the largest number of fathers working in transportation; but Bruce and Maury have the largest number in trade; while Smith, Leath, Merrill, Riverside, Guthrie, and Cummings have the largest number of workers engaged in manufacturing. Bruce, Maury, and Snowdon have the largest number in professional and agricultural work.

It is natural, of course, for people of the same pursuits and interests to live near each other, but if a city is to have unity, these groups must be drawn together by some common understanding and the recognition of common interests. Memphis does not yet fully realize this, for she is evidently not giving as much attention to her human problems, on either the social, industrial or educational side, as she is giving to the problem of her commercial development. There is a very conscious recognition of the interdependence of the city's interests with those of the surrounding country, and such organizations as the Farm Bureau and the Alluvial Land Associations are evidence of the fact that time and thought are being spent on that problem. There is very little evidence, however, of any recognition of the importance of developing an interdependence of interests among the different groups in the city. The best proof of this is that there is apparently little accurate information about social conditions in the city. The Farm Bureau makes a scientific study of facts; it knows what parts of the country should be developed; it sends out people to give definite advice about such development; it knows how many hogs were shipped last year and this year; it has that information by months; it knows the people who must be reached to develop the sale of "Home Butter—Made in the Tri-States." But in regard to the total number of people in Memphis there is no accurate information; no available record of the number in each school district; no available record of the number of workers in each establishment in each industry. The nearest approach to a social survey of the city is an investigation which was made by the War Camp Community Service in regard to the occupations, etc., of wage-earning women. This is a valuable piece of work which should be duplicated along many lines.

Moreover, there is not only little accurate knowledge of conditions, but also little attempt to develop common bonds of interest and mutual understanding among the various groups in the city. Such understanding grows out of social intercourse, public discussion, and an opportunity to share in recreation and the threshing out of common problems. But apparently little time and thought have been given to such matters. There are, to be sure, the usual social agencies and commercial clubs and organizations, but the experience of other cities is that these do not reach the mass of the people, and that when a city has fallen apart into distinct communities or groups, unity comes only through local district organizations which are really representative of the people, not directed from the top down. But the very fact that there are few places for such organizations to meet indicates the failure of the city to function on that side. There is no common hall

or meeting place for public discussion, and only two evening recreation centers. There are two large parks at the extreme edge of the city, but only nine playgrounds available for recreation and meetings.

It is important that Memphis realize in time the implications of these facts. Ultimately, the prosperity of the city depends upon the mass of the people of the city, upon their unity and mutual understanding, upon their intelligence, upon their good health, vitality, and industry. The development of these qualities in a community demands far more attention and scientific planning than are needed for the commercial development of the city. It is evident that, if Memphis is to grow and prosper, she must spend as much thought and scientific planning on her social and educational problems as have been expended upon the material development of the city. In the second place, it is evident that the conditions described lay a far greater responsibility on the school than was necessary when the city was smaller. The school must now be a social force in each district. It must knit together the diverse elements in the community by serving as a clearing house for the activities of the people. It must see that the children lose nothing of the best traditions of the past generation, but also develop greater social consciousness and sense of social responsibility.

Are the schools of Memphis recognizing these facts? Are they meeting their obligation not only to educate the individual but also to train him as a member of a social group?

2. Are the schools of Memphis developing in the children the spirit of initiative and the ability to think for themselves? Does the teaching stimulate thinking, or does it train merely in the capacity to give rote answers to questions?

It may fairly be said that Memphis has grown and prospered not only because of her strategic position for trade, but also because of the spirit of initiative, independent thinking, and practical ability in meeting new problems which characterized the builders of the city especally after the disaster of 1878–79. That pioneer spirit of daring enterprise is Memphis's most precious heritage. Without it the future growth of the city can not be assured. But that initiative and practical ability were developed in the past generation because they faced the necessity of solving practical problems. Since then the city has grown, and with that growth much of educational value which was found on the farm and in the simple life of a smaller town has necessarily been taken away from the children.

Are the schools of Memphis making good this loss by so organizing the school work that the children have real practical problems of life to be solved, or only lessons to be learned?

3. Are the schools developing the scientific spirit and the practical scientific knowledge so important in meeting the conditions of modern social and industrial life?

Children are natural scientists. As every father and mother knows, they are always trying to find out *why* things are so, taking things apart, putting them together again; trying things to see how they taste or feel or act under given circumstances, and doing it at the risk of the most dire consequences to themselves or someone else in their immediate vicinity. In other words, they are always experimenting with the world about them. This spirit may be starved or distorted, or it may be developed and enriched. It is one of the deepest obligations of the school to feed this spirit, to direct it into constructive channels, and to make it a source of accomplishment and growth.

Educationally it is the duty of the school in any community to develop this spirit of scientific curiosity in children, but in the case of Memphis the immediate practical importance of scientific training not only for the children but for the growth of the city is self-evident. For example, it is a commonplace in Memphis that the prosperity, and even the existence, of the city is dependent upon the production and general prosperity of the surrounding country. The production and prosperity of the country surrounding Memphis are dependent upon a knowledge of scientific farming, and upon an understanding of farming and farm conditions on the part of the city as well as of the rural community. What is needed is not merely farmers, but an educated public opinion. At present the Farm Bureau is spending much time, effort, and money to bring about such an educated point of view among adults. But the city should be able to count upon such knowledge in the rising generation that this work among adults would not be needed to such an extent as it is now.

In the second place, the manufacturing of Memphis grows out of the development of the by-products of the principal industries—cotton and wood. Without the chemical laboratories for the analysis of the forest products and their possible uses, and without the chemical analysis for the cottonseed oil factories, etc., the present efficiency in production and the constant development of new phases of manufacturing would not be possible. Memphis needs for its continued development a rising generation with the practical scientific knowledge necessary for the development of the industrial life of the community on scientific lines.

Are the schools of Memphis giving training in agriculture? Are they giving courses in physics and chemistry? Are they giving the opportunity for such courses only to children in the high school and vocational school, or are they giving this opportunity to the children

in the elementary schools, who will make up the large majority of the future citizens and workers of the city of Memphis?

4. Are the schools developing in the children general mechanical ability and adaptability?

Children have always been educated not merely by study, but by healthful constructive work. To deprive children of the opportunity to invent, to construct, to make things with their hands, is to deprive them of one of their best means of self-education. All children need the opportunity for this manual work from the earliest grades up, and they need it whether they are going into industrial work or into the professions.

There is sometimes a tendency in rapidly growing industrial cities to consider that all manual work must be vocational, and therefore to develop a system of rather narrow industrial training as a means of fitting workers for a specific line of work, instead of developing through a variety of manual work a fundamental knowledge of the principles of mechanics and the adaptability and resourcefulness which go with such knowledge.

In Memphis, however, there should be little danger of that mistake, because the diversity of the industries and the constant change in types of work offer an excellent illustration of the futility of the narrow type of trade training. For example, a study made of the occupations of white fathers of public-school children showed that there were 5,913 workers engaged in 366 different occupations. There were 10 different occupations in agriculture and 2 in mining. There were 145 different kinds of occupations listed under manufacturing, in which 1,934 workers were engaged. Only 251 of these were in the group of owners, proprietors, and managers, leaving 1,683 workers in 137 different industrial occupations.

A glance at these different occupations[1] shows how futile and short-sighted it would be for the school to attempt to train children for narrowly specialized lines of work, even if it were desirable from an educational standpoint, for no community could afford, either administratively or financially, to train for 137 different types of work; moreover, by the time such training would be completed the specific type of work or machine would very probably have disappeared. There is, of course, a place for the training of boys and girls over 16 years of age in different trades and occupations, through cooperative and continuation school work. Memphis needs such courses, but she needs even more to give to all children the general mechanical knowledge through practical manual work in all grades which does

[1] Complete list given in the final report.

not prepare for a particular trade but which lays the foundation for special training later, whether in industrial or scientific work.

Are the schools of Memphis giving to the children training in practical manual work and knowledge of mechanics? Are they giving this knowledge only to children in the vocational school, or are they giving the foundation of it to the large majority of children in the elementary schools, who will make up the mass of citizens and workers in the future? Are the schools providing for more intensive and thorough training for older children and for adult men and women?

5. What are the schools of Memphis doing to preserve the best traditions of the South in the art of living and the love of beauty?

The first hasty, and, it must be confessed, somewhat hazy generalization that came to the surveyor in Memphis, was that the southern people do not so much *have* art as that they *live* art. In other words, many of the qualities of life that art hopes to bestow on humanity are there without the art that tends to produce them. As typical of these qualities are the quick response to all that appeals to the feeling and imagination, the prevalence of a large humanitarian sympathy, a love of human living rather than a predilection for mechanizing life toward material production, and an abundant love of beauty, whether it be the beauty of nature, beauty in the furnishing of the home or the shop window, or taste in dress. There is a comparatively unhurried acceptance of life; and the spirit of art is largely that of appreciation of the graces and beauties and fine qualities of life as it is (if we live it right), while the spirit of industrialism is largely that of hectic remaking of the world according to some man-born plan which man fancies will make it yield to him satisfaction.

Is the old tradition of the South, the tradition of refinement, culture, hospitality, to be overborne by the pressure of a mechanistic system of industrial life?

Is the South seeking to conserve that which has given it its place in story, its charm and value in the eyes of the world? It is probably on the verge of ceasing to *live* art. Will it further fail to *have* art that will work toward preservation of its old spirit?

In the adult community strong forces are working to preserve musical art, develop it more richly, and make it function in the lives of the people. It will be a lasting pity if it does not take deep root in the lives of the people so predisposed toward it. There is danger instead that it will be put on a shelf as something remedial, to be applied at night to heal the ills which the day has generated. Art so conditioned, art that is not an expression of the full life of a people

but is instead antidotal to their real life, is a dead thing, a shallow hypocrisy.

Are the schools helping to preserve and develop musical art and make it function in the lives of the children?

6. Physical health. Are the schools contributing to the development of the children's health through the opportunity for wholesome play every day, or are the children left to the mercy of the city street, with its physical and moral dangers?

American cities which reached their full development previous to the beginning of the present century are now finding that in the building up of the city they omitted to take account of the necessity for healthful play and recreation for the children. They did not leave sufficient vacant spaces for playgrounds, recreation centers, etc., so that the next generation might not suffer for lack of the opportunity for physical development. The tendency in the average city has been to consider that one or two large parks provide this opportunity, thus ignoring the fact that under the stress and strain of modern city life the people must find their recreation and opportunity for physical development in their own immediate neighborhoods.

Are the schools of Memphis providing the opportunity for play every day for the children? Are they seeing to it that the children have the sound foundation of vigorous health which is necessary for happiness and success in life?

Part II.

WHAT THE SURVEY COMMISSION FOUND IN ANSWER TO THE QUESTIONS.

Believing that the people who know most about the conditions which prevail in the schools of Memphis are the principals and teachers who are working in the system, the survey staff, as soon as it arrived in Memphis, prepared a list of questions which was sent to every teacher and school officer in the department. This questionnaire was drawn up so as to elicit facts and opinions regarding matters of significance touching the preparation of teachers for their work, their experience, the conditions under which they are working, their salaries, and their methods of procedure in conducting important phases of school work. Furthermore, each was asked to make whatever suggestions he cared to which he believed would help

to better the conditions and the work. In particular, each member of the teaching force, including the principals and supervisors, was asked to give a frank, well-considered reply to item No. 19, which read as follows:

> Without discussing the matter with others, as you see the public school problems of Memphis, what would you recommend for the improvement of the schools or of school conditions? Please enumerate briefly your most important recommendations.

After the answers to this question were tabulated at the end of the survey it was found that many of the criticisms which the survey staff had to make of the schools were touched upon in one or more of the answers received from the teaching force. Consequently, the appraisal of the system which follows represents not merely the estimate of the survey staff, but in the most important points the judgment of the teaching force itself upon the work of the Memphis schools. Of course the answers to the questionnaire did not go into details, but the main points raised were the same. For example, some of the criticisms from the teaching force were as follows:

> "Do not try to teach them so many textbook facts."
>
> "Make them more self-reliant by requiring them or leading them to find out for themselves."
>
> "Teachers here do too much of the work and the children do too little; one, for instance, writes questions on the board and writes answers on the same day. Where does the child gain by that? We have too many copyists."
>
> "Outlines used suggest and even give answers instead of leading the child to search for the truth."
>
> "The process of memory is used rather than the process of understanding, judging, and reasoning."
>
> "The plan of promotion is not good; all depends on the grade made in the final examination."

On the other hand, the survey staff, after an extended investigation of the schools covering the subjects taught, methods of teaching, organization, and administration, reached the following conclusion:

The public schools of Memphis are failing to meet the needs of the children and of the community.

They are failing to develop in the children the spirit of individual initiative, and the ability to think for themselves.

They are failing to develop the scientific spirit and practical scientific knowledge so important in meeting the conditions of modern life.

They are failing to give to all the children the constructive manual work which is now recognized as a necessary part of every progressive school system.

They are not contributing to the development of good physical health.

They are failing to develop in the children a sense of social consciousness and responsibility.

In short, they are failing to train children to live because the school is founded upon the textbook, not upon life.

SCHOOLS OUT OF TOUCH WITH LIFE.

The most conspicuous characteristic of all work in the Memphis schools is the lack of relation with the outside world, the utter disregard to the life outside the classroom doors.

For example, Memphis is particularly rich in historical material. Her own story, both in the past and the present, is full of dramatic interest. During the first week of the survey the centennial celebration of the founding of Memphis made the history of the city a matter of common discussion. Newspaper articles, pictures, parades, told the story in various ways. It was a rare opportunity for the schools to make the work in history vivid and full of interest and meaning to the children. Yet in not one of the classes in any of the schools visited by the surveyors during that week was a reference made to this event except as a reason for early dismissal.

This is but a single, though rather a striking, example of the utter ignoring of current events as a means of interpreting and enriching the work in history, but in the final report of the survey example after example is given in illustration of the point that the teaching of history made no use of the present as well as the past as a means of interpreting history. On the contrary, the history instruction amounted to little more than a memorization of the textbook, carried on without meaning to the children and apparently for the sole purpose of passing the final examination. Frequently the surveyor would follow the child through a recitation, and the child would repeat the words of the book almost verbatim and apparently without understanding. As one little girl said, when called upon in the fifth grade to explain the Missouri Compromise: "I don't know what it means, but I can recite it." Of course no children of this age should be expected to understand such an historical event as this, nor should it be included in their course of study.

In the civics class also there was the same dominance of the textbook and ignoring of actual existing conditions. For example, in a class which was reciting on the subject of legislative organization of the county, the pupils in answer to questions asked by the teacher, described the "city council," dwelling in detail upon the method of

electing "aldermen" by wards, and similar information. As the class was about to pass on to the consideration of the State legislature, the observer inquired: "What city have you been talking about?" The answer was: "Memphis." It then required a series of questions from the observer to elicit finally from one boy the statement: "Memphis doesn't have a city council; it has the commission form of government."

Again, Memphis as a great trade center is full of valuable material for the study of geography. A visit to Front Street, and a study of the products assembled there, could keep a class profitably occupied for months. Yet, not only is the concrete material which is available on every hand not used—material in the shape of pamphlets, exhibits, etc., which the chamber of commerce and the Farm Bureau and other organizations would be only too happy to loan or give the schools—but it was found that in some cases the things which the children were learning about their own city ignored the most important facts, as for example in a geography class where the children were asked to "name the important products of Tennessee," 8 or 10 products were named, including "vegetables," but no mention was made of cotton or hardwood during the whole recitation. In other cases where the facts were correct the recitation was carried on by means of questions and answers that gave the child no food for thought. For example, the following portion of a lesson was assigned and written on the blackboard:

Memphis is the trade center for western Tennessee and Kentucky, Mississippi, and eastern Arkansas.

The farmers of these States send their cotton, fruit, and vegetables to Memphis to sell.

Memphis merchants sell to the farmers groceries, plows, wagons, furniture, and clothing.

Memphis is a great market for cotton and lumber.

There are many large lumber mills at Memphis, etc.

The recitation was conducted as follows:

Teacher: Memphis is a trade center for what sections?

Child: Memphis is a trade center for western Tennessee and Kentucky, Mississippi, and eastern Arkansas.

Teacher: Where do the farmers send their cotton, fruit, and vegetables?

Child: The farmers send their cotton, fruit, and vegetables to Memphis to sell.

Teacher: For what is Memphis a great market?

Child: Memphis is a great market for cotton and lumber.

Each question asked by the teacher was responded to by the children in "parrot-like fashion." So far as any meaning that it had for the children, they might just as well have been reciting about Kam-

chatka. In general, throughout the history work it may be said that the pupils were gaining a certain amount of unrelated "information," such as it was, but that the study contributed little to the development of intelligence.

INITIATIVE REPRESSED.

In other words, the schools of Memphis are not teaching the children to think. Initiative, instead of being encouraged, is constantly, if unconsciously, being repressed. This repression manifests itself in a multitude of ways, but particularly in the rigid adherence to the textbook and in the catechetical question-and-answer method of conducting recitations. Pupils seldom ask questions; and when they do, it is likely to be, as in one case observed, because the teacher *tells* them to question one another, and the questions which they then propound are formal textbook questions in imitation of the teacher's questions, and not spontaneous endeavors to find out something they *really want to know*. The "socialized recitation," in which the pupils are given and joyfully accept a large share of responsibility for the conduct of the recitation, is practically unknown.

TESTS SHOW CHILDREN DEFICIENT IN BOTH SPEED AND ACCURACY.

Some of the serious results of this repression of initiative and of the failure to stimulate the children to think were revealed rather startlingly in a series of arithmetic tests which were given to test the speed and accuracy of the children in the elementary schools. These tests showed that not only were the children in the Memphis schools deficient in speed as compared with the general standard throughout the country, but that they also stood very low in accuracy. In other words, they attempt fewer problems than the average children of other school systems and are less accurate than are the children of other school systems, even though they attempt a fewer number of examples. For example, eighth-grade children under the general standard attempt 11.6 examples out of 24, with an accuracy score of 76 per cent, thus averaging 8.8 examples correct, while Memphis eighth-grade children attempt 8.8 examples, with 67.7 accuracy score and only 5.9 examples correct as an average, which is not as large a number of examples correct as a fifth-grade child should do according to the general standard. It seems reasonable to expect an eighth-grade child in Memphis to solve as many examples correctly as a fifth-grade child in San Francisco, but at the present time he is not able to do it.

It is rather difficult to account for the poor showing made by Memphis. It can be safely assumed that the native intelligence of the children of Memphis is equal to that of any other city. Therefore, we must look elsewhere for the explanation. The reasons seemed to be, first, that the course was good enough as far as the arithmetical principles were concerned, but the problems themselves were things apart from the child's activity and experience. There seemed to be an absolute refusal to use problems from the daily lives of the children, although such problems would illustrate the arithmetical principles involved. The material used was foreign to the experience of the child; and children, like adults, can not think actively or well about situations that they do not understand. In the second place, many of the teachers, from over anxiety to have the children "get" the problem, have developed the habit of interfering and of directing their answers throughout the solution of problems. Having once given the child a good problem, it is essential for learning how to think to require the child to think and think for himself. And in the third place, the arithmetic in the Memphis schools would be much more stimulating if the children had courses in manual training, cooking, sewing, drawing, and gardening in which the children could find practical application of the need for the arithmetical facts which they acquire.

LITTLE OR NO SCIENCE IN THE SCHOOLS.

It is now taken for granted in progressive school systems over the country that such subjects as manual training, cooking, sewing, drawing, and gardening are as essential parts of a modern curriculum as the history, geography, reading, writing, and arithmetic. But in the Memphis elementary schools there is practically no nature study or elementary science. Physiology, taught in the fourth grade, is the nearest approach to the subject. There are occasional topics more or less under the head of nature study taught in the various grades, but there is no well-defined course of study, no laboratories, no concrete material. School gardening, poultry keeping, bird study, the care of house plants and animal pets, the study of chemistry and physics—none of these things are found in the Memphis elementary schools.

Yet the majority of the children in the elementary schools never go on to the high school, and consequently the largest number of the children leaving the public schools of Memphis never get any training in the subject that is the foundation of all our modern industrial life. Moreover, the spirit of scientific curiosity which is so strong in children of this age is being starved instead of being fed and developed. In every hour of their waking lives out of school the

children are experimenting and testing. It is only in school that they get no opportunity to experiment.

In the high school the situation is better in certain respects: there are laboratories, and the teaching makes the subject attractive and interesting to the children. But to anyone who is impressed with the importance of the spread of scientific education it is startling to find how few pupils need to take science in order to graduate. In this great high school where a great and growing city, needing science for its future development, is training its future leaders, the pupils who choose any one of five out of the eight curriculums can get by without studying any science whatever; and in only two of the eight curriculums, the scientific and the technical, are the students obliged to take more than one science study. As a matter of fact, only 28.7 per cent of the pupils enrolled in the high school during the past year (1919) studied science.

In the vocational high school, where shopwork is prominent, one would naturally expect to find strong and well developed courses in physics, especially mechanics and electrical chemistry, for students fitting themselves for industrial occupations; and civic biology, or at least physiology and hygiene, for all pupils. It was somewhat surprising, therefore, to find nothing of the sort. There are no laboratories equipped for work in science, and no teachers in the corps, so far as the observer could learn, who are competent to teach science. Such apparatus as there was gave no evidence of being properly used or cared for, and though there was in one room a demonstration table, there was no such thing as a laboratory table at which pupils could experiment. What was designated as general science was given in the room where the demonstration table was. There was no evidence of pupil experimentation and very little that any effective experimenting was done by the teacher before the pupils. The subject matter was mainly on home gardening and agriculture. Examination of the pupils' notebooks showed that they were all alike, being merely dictation from the teacher, taken down word for word, except when the teacher was misunderstood, when the pupil would get down something that made no sense.

The course in "wood technology and timber physics," as outlined by its teacher, looked well and promising, but the classroom work did not confirm this impression. The classwork observed in this subject was memorized recitation from a very elementary textbook about wood technology.

In a further search for scientific instruction, the room where the class in "printing design" was working was visited. This was a small drawing room occupied by the teacher and three or four boys.

The observer had been told that in this class the physics and chemistry of color, pigments, and paper were taught. He was not able to elicit from the teacher, the students, or the little textbook of design that was in use any scrap of evidence that scientific instruction or experimenting of any sort had been carried on in connection with this class. The work in printing design as such, however, appeared to be efficient.

The plain fact, then, with regard to this school is that no science instruction whatever is given in it that is worthy of the name, and that, aside from a very few microscopes and magnifying glasses and some few pieces of physical apparatus and bottles of chemicals, there is little of a material sort with which to teach sciences.

The condition of the high school for the colored children is even worse than that of the Vocational High School. In fact, it is nothing short of pitiable. The school building is unclean, unsafe, insanitary, poorly arranged, badly lighted, and unsuitably located. Furthermore, it is badly congested. The office room is so small as to be almost useless; there is nothing that might justly be called a library; and there is no laboratory and no science equipment whatever, excepting a few bottles and test tubes and a few broken pieces of antiquated physical apparatus. It is impossible to do anything except textbook and recitation work; and even such work, on account of the constant overcrowding of the room, must be done under the greatest of difficulties.

NO HANDWORK IN THE ELEMENTARY SCHOOLS.

The situation in regard to handwork in the elementary schools is no better than that in regard to science. In one school, Rozelle, the building contains rooms set aside for shop and storeroom, but these stand idle for lack of a teacher and suitable equipment. In one colored school, Grant, there is a woodworking shop, with the usual complement of individual benches and tools. In the West Special School a basement room has been equipped with benches and tools, but is unused for lack of a teacher. The room is crowded and inadequately lighted, and in general not well suited for the purpose. With these exceptions Memphis makes no provision for handwork in the elementary schools. In this respect the city lags far behind the school systems of other cities of her population class.

On July 10, 1911, the board of education authorized the organization of the Memphis Vocational Grammar and High School, and the school was opened in the old high-school building on September 18, 1911.

From an enrollment in 1911–12 of 188, the school grew to 469 in 1915–16. Although an effort appears to have been made by those in charge to develop a vocational school of high grade, lack of adequate financial support and the influence of the traditional school curriculum and ideals combined to prevent the full realization of this aim.

In the fall of 1917 the State board of education authorized the establishment of a number of unit trade courses under the provisions of the Federal Vocational Education Act. The name was changed to the Crockett Vocational School.

In 1918–19 the school offered five unit trade courses, two years in length, under the terms of the Smith-Hughes Law, as follows: Architecture, carpentry, commercial design, home economics, and printing. In these courses 99 students were enrolled in the second half-year, as shown in the table hereafter.

The school also offers a four-year "vocational course," based on graduation from the sixth grade, thus paralleling the seventh and eighth years of the elementary school and the first two years of the high school. The number of students enrolled in this course in the second term, 1918–19, was 515, of whom 7 were taking a fifth year's work.

Any work, however, in a vocational school is made doubly difficult if the children in the elementary schools have not had constant opportunity to work with tools and develop a mechanical handiness and knack. To keep a child in school seats five hours a day for eight years reciting from a textbook facts that he does not understand, and then turn him at the age of 14 into a vocational school or high school, give him a hammer and saw for the first time in his school life, and expect him to develop any mechanical ability in a year, or even two years, is contrary to the laws of growth. Moreover, manual work should not be reserved merely for children who think they are going into industry. Working with tools is an educational process which should be part of every child's experience. What the schools of Memphis need is manual work and elementary science in all elementary schools.

MUSIC.

The State of Tennessee is undergoing a general musical awakening, is acquiring an ever more acute consciousness of itself musically, and of the needs and possibilities of those outside the circle of a small group musically advanced. But the public schools are not contributing their share to this general progressive awakening in the community. Perhaps they should; but they do not. Public schools deal with children, largely of tender age, many of them mere infants.

The parents are the constituency of the schools, and the schools try to bring these children up to the sort of an education that the majority of the parents hold in dim conception as the right one. The public schools are, therefore, prone to follow and not to lead. If music does not seem a vital, an urgent thing to the majority of parents, then music will not be vigorously taught. At present the same general criticism can be made of the teaching of music that holds true of the instruction in other subjects, i. e., the teaching of books and rules rather than music.

HEALTH OF MEMPHIS SCHOOL CHILDREN.

There are no records of the physical condition of the children in the Memphis schools.

The "Manual of Physical Exercises and Games for Public Schools of Memphis—First to Eighth Grades," outlines the program of physical training activities for the Memphis elementary schools. The program consists of calisthenics and games for the primary grades; calisthenics, wand and dumb-bell exercises, and games for the upper grades. Footwork and marching exercises are included throughout. Ten minutes a day is the prescribed time for this part of the program. In some of the schools where teachers specially interested in this work have been assigned to conduct it, from 20 to 30 minutes a day are given.

No provision is made, however, for free play for the children; the playgrounds have no apparatus, or only that of the most meager kind; there is no provision for supervised play during or after school, and no evidence that the grounds are used by the people in the neighborhood as a community center. There are nine public playgrounds in the city, two of which are connected with the schools; but this is not sufficient. Some cities are finding that the most effective and also the most economical method of developing opportunities for play for children is by having the playgrounds in connection with the schools. But, on the other hand, if this is done, the schools must make the playgrounds real play centers, not something in the nature of out-of-door classrooms with all the rigidity and repression which that implies.

THE EXAMINATION EVIL.

Finally, as was suggested by many of the teachers in answer to the questionnaire, all the unfortunate and undesirable features of the schools as they now exist tend to become more fixed and unyielding because of the system of basing all promotions on the formal examination.

Written examinations given in the form of tests at intervals during the term have a place in school procedure for which it is impossible to find a complete substitute, but as a basis for determining a pupil's fitness for promotion the formal examination held at stated times has fallen into disrepute.

In general, when promotion is made to turn upon it, in whole or in any considerable degree, the examination inevitably leads to "cramming," to undue worry and nervousness, and to working with the sole end in view of passing, causing the entire work of the school to center about this one idea. It puts a premium upon wrong methods, and stresses what should be but a mere incident in the plan of education; it provokes bitterness and unseemly strife between parents and teachers; and it occasions a vast amount of unnecessary and unprofitable labor for the teacher in reading an endless number of papers, in keeping records, and in making out reports.

An examination of the statistics on promotion in the Memphis schools during the past year shows that an unduly large percentage of children are failing to pass their examinations and win promotion. In the white elementary school the percentage of failure runs from 5 to 20 per cent. In general school practice where failures run higher than from 8 to 10 per cent of those remaining to the end of the term, it is made a matter of investigation by the superintendent's office. With the grades of the colored schools the range of failures is somewhat different, running from 10 per cent in the seventh and eighth grades to about 30 per cent in the first grades. On the other hand, in the Central High School the situation is not much better. The failures in the ninth grade for all subjects taken except history and domestic science is appalling.

The teachers, when asked in the questionnaire for reasons for nonpromotion, gave a variety of reasons, which when tabulated showed that 1,000 of the 1,425 instances of nonpromotion, in the judgment of the teachers, are to be attributed to irregularity in attendance and to indifference. In point of fact, much of the irregularity in attendance, though not all of it, can be set down to the pupils' lack of interest in their school work, for if they were vitally interested there would be fewer absences than now appear.

While, doubtless, all these reasons and more are factors in the situation, nevertheless the survey staff is convinced that a more weighty factor than any of these is to be found in the fact that promotions are based upon formal examinations and that these examinations dominate the work of the system and color everything which the teachers do.

Part III.

SOME REASONS FOR CONDITIONS IN THE MEMPHIS PUBLIC SCHOOLS.

What are the reasons for the conditions described in the Memphis schools? Why are the schools failing in so many respects to meet the needs of the children and of the community?

LOW STANDARDS OF TEACHING.

One of the reasons given in the answers to the questionnaire by the teaching force was the low standards of teaching required of those entering the Memphis schools.

"Too many inexperienced teachers whose educational attainments are below a fair standard can be found in these schools."

"Require more than a high school education for teachers."

"There should be some professional training required of applicants before they are assigned to duty."

It is true that the professional standards for teaching in the Memphis schools are not high. A study of the training and experience of the teaching force showed that the academic preparation of approximately 80 per cent of the elementary white teachers when they entered the schools of Memphis are limited to a four-year high school course or less; and that only 20 per cent had had any academic work beyond that of high school grade. Furthermore, nearly 50 per cent of the elementary teachers began their work without any professional training of any kind. Of the remaining 50 per cent, the professional training was limited to one or two sessions of summer normals, while only about 10 per cent brought to their work at its beginning the training given by a two-year course at a reputable normal school.

Only about one-third of the teachers of the white high schools of Memphis, when they were elected, measured up fully to the standard of preparation which good high schools of the country are insisting upon, namely, graduation from a college or university of recognized standing.

Of a total of 157 teachers and principals of the colored elementary schools who reported, 54 had had nothing more than a three years' course at the local Kortrecht High School; 72 had taken the work at Le Moyne Institute, the equivalent of a high school course, with a little time devoted to professional training; 6 came in from Howe Institute; while 25 had the training given by other institutions for colored students. Of this latter group, 6 had had work at Fisk University and 3 at Tuskegee.

LOW SALARIES.

One of the chief reasons given for the fact that there were so many teachers poorly qualified by education, training, and experience in their work was the small salaries paid the teaching force.

"Good teachers are leaving the system because of poor salaries. Very few are taking up the profession of teaching. Result, poor teachers."

"Pay teachers more salary and require of them more professional work."

Without doubt the meagerness of the salaries paid in the Memphis schools in the past, the slowness with which the department has met the enormous rise in living cost, the failure of the State normal schools of Tennessee more quickly to raise their admission standards, and hence to increase the qualifications of their graduates, and the "aid-teacher" system which has prevailed in Memphis for many years, go far toward explaining the fact that at the present time the system has in it so many people so poorly qualified by education, training, and experience for their work.

Success within the field of business enterprise is largely dependent upon offering to employees inducements such that long tenure and the taking of a vital interest in the business will inevitably ensue. If it be true that a happy, contented, and care-free employee is requisite for success within the domain of business, how much more must a serene mind be essential to work of a superior quality in the business of teaching. Good teaching, perhaps more than good work in any other activity, is dependent upon a buoyant, hopeful, joyous mind; for good teaching is a matter primarily of the spirit. A state of mind is contagious. Happy teachers mean happy children, and unhappiness in a teacher inevitably begets unhappiness among children. Men and women, as well as children, can never do their best work when they are dispirited, discouraged, and depressed. In the interest of the children, therefore, school officials should give much practical consideration to the ways and means of improving the material conditions which press in upon the life of their teachers.

Until recently the salaries of white teachers of elementary and high school grade in the Memphis schools had remained for many years at $600 to $900 for elementary teachers and $1,020 to $1,320 for high school teachers. The flat advance of $120 per year, which the recent raise in salary brought, meant an increase of about 16 per cent for the teachers of elementary grade and about 10 per cent for teachers of high school grade, or an average advance of 13 to 14 per cent, colored teachers not included.

This increase, however, is not sufficient to enable the city to continue to secure and retain teachers with the type of training and ex-

perience which the schools require. An analysis of the problem of the individual teacher from the standpoint of the foregoing considerations shows that a compensation which can be considered adequate must cover the following items at least: (1) Clothing and subsistence; (2) medical and dental care; (3) life insurance; (4) family support or support of dependents; (5) social and professional growth through books, magazines, music, art, the theater, membership in teachers' associations, and attendance upon summer schools; (6) incidentals; (7) establishing a reserve. Something should be saved and safely invested. At prevailing prices it is difficult to see how these items can be covered, even with severe economy under a minimum salary of $1,000 per year.

To meet this situation adequately the following salary schedule is proposed as a goal which Memphis should earnestly seek to reach at the earliest possible moment:

Teachers.	Length of time of appointment.	Salary schedule for each group.				Yearly salary increase.	Year in which group maximum. can be reached.
		Elementary.		Secondary.			
		Minimum.	Maximum.	Minimum.	Maximum.		
1. One-year teachers (probationary)	1	$1,000	$1,150	$1,200	$1,350	$75	Third.
2. Three-year teachers	3	1,225	1,375	1,425	1,575	75	Third.
3. Five-year teachers	5	1,450	1,550	1,650	1,850	50	Fifth.
4. Permanent teachers	(1)	1,700	2,000	1,900	2,200	50	Seventh.

[1] Until retired.

LENGTH OF TENURE OF BOARD OF EDUCATION.

A third reason given for the lack of progressive policy of the school system was that there were too many and too constant changes in policy, owing to the fact that at present the board of education is made up of five members who are elected for a term of four years and all the members go out of office at the same time. This is most undesirable, for it means that a new board may come into office knowing nothing about the schools or about the policies inaugurated by former boards and which it may be highly desirable to retain. Under the present arrangement it is too easy for a new board unwittingly and through ignorance of conditions to allow policies to lapse which have been inaugurated only after strenuous endeavor. Furthermore, the school corps is always uncertain as to the continuation of policies already entered upon. A majority of the members of every new board ought always to comprise those who hold over and whose presence will in consequence insure a continuity of policy. The citizens of Memphis, therefore, should take steps to bring the matter to the

attention of the legislature, insisting that the city charter of Memphis, under which the schools are conducted, should be amended to provide a board the terms of whose members shall expire at different periods, thus avoiding the present anomalous and demoralizing condition of having the entire board terminate work at the same time. Moreover, the mistake which now obtains of electing a new board 14 months before it takes office should be corrected.

POLITICS.

All the above reasons were offered as explanations of conditions in the Memphis schools, but the reason most frequently advanced by the members of the teaching force in their answers to the questionnaire, and the one most often put forward by the average citizen, was the one word "politics."

Without any doubt to an unusual and disquieting degree the schools of Memphis have been organized and administered on a personal and political basis rather than upon the impersonal one which seeks the answer to but one question: What is best for the children of the city?

The political activity of Memphis is not a contest between two great parties, but is a struggle for supremacy among various political factions, each held together by the personality of some strong individual who is recognized as a leader of his group. Memphis, therefore, in respect to its government is for the most part kept in a seething and unstable condition. The political faction which gains the ascendency in municipal affairs is able to do so usually because of the fact that it has succeeded in creating a machine temporarily strong enough to place it in power. That these machines have been able to exercise a very considerable control over the policies and personnel of the school system appears to be unquestioned. In instances, so the survey commission was informed, the influence of these various political machines at different times in the history of the city have been powerful enough to secure exemption from the examinations which all candidates for teaching positions are presumed to take. Again, teachers have at times been retained in the department not because they demonstrated their success in the classroom—indeed in instances principals and supervisors have reported unfavorably upon their work—but because they have been so thoroughly intrenched behind powerful influences that the superintendent and the board have not dared to attempt dismissal.

ULTIMATE RESPONSIBILITY RESTS WITH THE PEOPLE OF MEMPHIS.

Political strife and machinations which are continually disintegrating the school system and sacrificing the children of the city to the game of power among the adult population, low standards of teaching, low salaries, unfortunate charter provisions in regard to the board of education—all these things explain more or less why the Memphis schools are failing to fulfill their obligations to the children. But the real cause lies deeper than any of these special reasons. "Politics" is too simple an answer, and tends usually to a resigned acceptance of the status quo by the average citizen. No solution can be reached by shifting the responsibility and blame to the shoulders of any one group of men, for ultimately it is the people themselves who are responsible and who must provide the remedy.

The fact of the matter is that up to the present time the people of Memphis have not spent the time or thought or money on the education of their children which they have given to the material growth of the city.

The most striking characteristic of Memphis throughout her commercial development has been her spirit of scientific, deliberate planning for the future, together with the recognition of the importance of cooperative effort. She first showed evidence of this in making the city a fit place to live in for the years to come by installing the pure water supply system and modern sewerage system after the disaster of 1878–79. Again, the development of the Farm Bureau represents an attempt also to plan for the future by developing the agricultural possibilities of the surrounding country by scientific study of its present resources and needs. The Alluvial Land Association also is evidence of efforts to mobilize scientific knowledge and foresight for the future development of the city. Again, the chamber of commerce, in order to draw business to the city, is constantly making a study of sites, water power, raw materials, transportation facilities, etc., and planning business development with a view to what the city should become 10 or 20 years hence. Of course all these organizations were formed for purely commercial purposes, i. e., to develop Memphis so that people would buy and sell there. But this does not affect the point that the very existence of these associations shows that the same spirit which led to solving the problem of how to make Memphis a fit place to live in is now evident in laying the foundation for the assured development of the city.

NOT SO MUCH ATTENTION GIVEN TO SCHOOLS AS TO TRADE.

But in regard to her public schools which, after all, are a source of her future prosperity and growth, she has, up to the present time,

failed to display this spirit of foresight and scientific planning for the future. The city has grown so rapidly, and the interest of adults has centered so completely on the commercial growth of the town, that apparently there has been no realization of the fact that the growth of Memphis from a small town to a large city was not bringing the benefits to the children which it was bringing to the adults: that, in fact, the modern city, though an excellent place for adults, is not a good place for children to live in unless deliberate efforts are put forth to make it so by seeing to it that the children are not deprived of such important elements of their education as opportunities for healthful work and play.

It is difficult for the men and women who grew up under simpler conditions to realize what modern city conditions mean to children. The present generation of men and women grew up under the conditions of a town where there was plenty of play space, and sufficient opportunity for work in and about the home to keep them wholesomely occupied and to develop the initiative and ingenuity and ability to think, which is now such an asset in the development of the city. These men remember when a large part of the eastern section was an unoccupied area and when there was little difficulty in finding playground space for a game of ball. Yet a few years ago the question of playground space became such a serious problem that a survey commission was called in to point out how and where to save play space from the encroachments of a rapidly growing city.

Again, these men and women who had the advantages of growing up in a simpler environment feel that there is something wrong with the present generation, but they fail to understand what it is. For example, they are already deploring the fact that "children in these days do not seem to know how to think"; "they don't know how to work"; "they have no initiative, no mechanical ability, nor resourcefulness." The implication is that there is some moral lack in the children. But, as a matter of fact, the city environment, whether at home or at school, does not tend to provide for children the practical, everyday problems to be solved which develop these qualities. Hours spent at a school desk do not develop either initiative or mechanical ability; and a love of good workmanship and resourcefulness in solving problems do not develop from reciting lessons merely, but from the opportunity to create things and to solve problems that have meaning.

MODERN CITY CONDITIONS NECESSITATE CHANGES IN THE SCHOOLS.

In other words, the rapid growth of cities makes the educational problem far more difficult than formerly; in fact, has created a new school problem.

The education of all children has, of course, always consisted of work and study and play, but formerly the farm and small shop supplied the opportunity for work and play, and the school needed to make provision only for academic study. In those days the environment of the average boy and girl furnished an education in wholesome activities that developed intelligence, initiative, and industrious habits. But during the past 50 years has come the growth of the modern city, until now half the population of the country is concentrated in them. And the city with its overcrowding, its factories, its office buildings, apartment houses, and tenements which go up on all available vacant lots is depriving children of the opportunity for the healthy, wholesome work and play which are essential elements in their education. The city home or apartment, unlike the farm with its many necessities of "learning by doing," can offer few educational opportunities in the way of healthful work which develops the ability to think by attacking problems to be solved. There is no planting and harvesting to be done; few, if any, animals are to be taken care of; and it is a rare city home that has a workshop or laboratory. Yet children until recently have received much of their education through the opportunity to handle tools, to take care of animals, and to experiment in making and using things. But the city not only fails to educate children in the right direction; it educates them in the wrong direction, for the street, with its dangers to the physical and moral life of children, too often becomes their only playground; and street play means education, not in health and strength and wholesome living, but precocious education in all the vicious side of a city's life.

For these reasons it has come to be recognized that the city school must not only supply the opportunity for study in good classrooms under wholesome conditions, but it must also return to the children the opportunity for the healthful work and play which the home can no longer supply.

Memphis provides an excellent illustration of these new educational problems presented by city conditions, because she is apparently in the transition stage from a comparatively small city to what is likely to become one of the largest cities of the South. She is standing upon the threshold of a new era. The generation of men who rebuilt Memphis after the disaster of 1878–79 laid a sound foundation for the future material welfare of the city. Their sons and daughters are now carrying on the work of building up the industries and agricultural possibilities of the town. They are doing it by virtue of their inheritance and training, which developed initiative, practical ability, and scientific knowledge. But the conditions which developed

those qualities in them have changed and the educational system must be changed to meet these altered social and industrial conditions.

The survey clearly indicates that if the city is to grow and prosper as much foresight and scientific planning must be spent upon the education of the children, upon school accommodations and curriculum and school organization, as has been expended upon the material development of the city.

For example, everything that has to do with the business life of the city is planned on the assumption that Memphis is to be a metropolis. Even the office buildings are put up on a scale which anticipates that Memphis will become an increasingly important trade center. But the school buildings are planned as though it were assumed that Memphis is to be a small town or village.

What Memphis needs primarily in order to solve her school-building problem is a realization of the fact that providing for the present and future growth of school population is an engineering problem that demands the same deliberation and far-sighted planning which she has so well displayed in other phases of the city's life. What the board of education and people of Memphis need to ask themselves is not whether one group of people want a building more in one section of the city than another group in another section, but rather, What is the present school population of Memphis? How much has it increased in the last 8 or 10 years? Where is the congestion greatest? In what direction is the tide of population moving? What kind of buildings should be put up and in what parts of the city in order to provide for growth as well as for present enrollment? How much playground space is needed? What kind of activities should be provided in the school buildings in order that the children of Memphis shall grow to be healthy, intelligent, self-reliant, and worthy to carry on the traditions of the city? Considering the funds available for building purposes in the present and in the immediate future, what items in a comprehensive building program should be taken up first and what items can be left for future building appropriations?

In the second place, in order to make the schools what they should be for the children it must be fully realized that the school in a modern city can no longer be the little red schoolhouse of olden days, but that it must be a social institution where the children may be wholesomely occupied six or seven hours a day. If children are to have opportunities for work and play, then playgrounds, shops, science laboratories, drawing and music rooms, and auditoriums must be provided in addition to classrooms.

And in the third place it should be a self-evident fact to as progressive a community as Memphis that if these enriched opportunities

are to be made possible for children, some means must be found to apply the principle of organization which is found in all other public-service institutions, i. e., the principle of multiple use of all facilities all the time. For years the public-school system has been run on the principle of reserving a seat for each child during the whole year. All children have to be in school seats from 9 to 12 a. m. and from 1 to 3 p. m.; all have to go home to lunch at the same time, and at 3 o'clock all are dismissed and turned out to play. Yet if this principle of reserving a seat for the exclusive use of one person were applied to other public-service institutions, they could not be operated. For example, it is evident that our transportation system is made possible because all people do not wish to ride at exactly the same time; concerts and theaters are made available to many people because one person can use another's seat when he does not want to use it; hotels can accommodate thousands of people because they are not run on the principle of reserving each room for the exclusive use of a single individual during the whole year.

There would, after all, seem to be no good reason why the principle of other public-service institutions, i. e., multiple use of facilities all the time, should not apply to the school, nor any reason why all children should be in classrooms at the same time, nor why the special facilities should be used only a fraction of the day, provided, of course, that the children receive during the day the required amount of academic work. In fact, it is difficult to see how the problem of providing enough classrooms, or playgrounds, or auditoriums for the mass of children is ever to be met if all children have to be in classrooms at the same time, and if all children have to play at once. Moreover, there seems to be no good reason, from an educational standpoint, why children should all have to do the same thing at the same time.

The survey commission, believing that the people of Memphis wish to plan for the future of their school system as thoughtfully and scientifically as they are now planning for the commercial development of their city, make the recommendations given in Part IV of this report. These recommendations cover only those in regard to school organization, school buildings, and finance. The detailed suggestions in regard to the curriculum, subject matter, and method of teaching will be found in the final complete report, which is now being printed by the Federal Government at Washington.

Part IV.

RECOMMENDATIONS.

1. SCHOOL ORGANIZATION AND SUPERVISION.

Amend the charter to provide for an unpaid board of education of seven members, whose terms of office shall be six years, except that at the first election two members shall be elected for two years, two for four years, and three for six years, and that after the first election there shall be an election every two years for either two or three members, as the case may be.

Candidates for election to the board should be nominated by a committee made up of representative men and women chosen for the purpose from the various civic bodies in the community which are working in a nonpolitical way for the progress of the city.

Remove the charter limits on the salary of the superintendent and make it permissible for the board to elect him for any term of years not exceeding five.

Make the superintendent the executive head of the school system in reality and hold him responsible for results. The board should refrain from details of administration, concerning itself only with defining general policy.

Raise the minimum qualifications of teachers in the elementary schools to graduation from a four-year high school, or the equivalent, and a two-year course at a good normal school, or the equivalent. Require college graduation or its equivalent of all high-school teachers.

Adopt a plan for eliminating the inefficient and the inadequately prepared teacher.

Abolish the "aid-teacher" system.

Arrange with local negro institutions to give two years of professional training to graduates of colored high schools who desire to teach in the Memphis schools.

Provide for a supervisor of colored schools.

Place the salary schedule of the department on such a basis that competent people will be attracted to and be held in the corps, and provide for promotions to those who are increasingly efficient.

When the requirements of the colored employees are put upon the same basis as that of white employees pay them the same wages.

Abolish the plan of paying the janitors a lump sum for the care of buildings and provide sufficient help direct. Readjust the wage scale for both white and colored janitors on the basis of some such plan as

the Boston plan, and relieve them of the responsibility for the discipline and control of children.

Abolish the system of promotions which is based on formal examinations and introduce the plan by which the class itself determines its own standards of promotion by reason of the quality of the work it does.

2. CURRICULUM AND METHODS OF TEACHING.

Memphis possesses a golden opportunity for the making of an ideal school system through the personnel of its teaching staff. Courtesy, graciousness, and refinement are in evidence on every hand. One notes the wholesome and refining influence as reflected in the spirit and attitude of the pupils toward their school work. The teachers in general rank high in personality and the spirit of cooperation is excellent. On the other hand, nearly all of them are unskillful in most of the ordinary phases of class organization, management, and instruction, and in the development of group initiative. An examination of the content of the work done and the methods of instruction pursued shows too frequently a lack of vision and educational outlook. Most of the teaching is done on the basis of words rather than on the basis of reality. The schools move on from day to day in a groove. The teaching tends more toward "memory storing" than toward achieving power to act and re-act quickly in thought processes. The textbook is the end and not the means to an end. Lessons are assigned from day to day, as so many pages to be studied, to the end that the children return the next day having committed to memory the facts contained therein.

It is evident that there should be far more effective provision for close and thoroughly expert supervision of the classroom work in every department. Moreover, departmental and general teachers' round tables should be held at frequent intervals, at which general problems of teaching could be discussed by the teachers, by department heads, by the principal, and occasionally by experts and specialists called in from outside the schools. Yet no very great change can be expected in methods of teaching so long as the course of study remains what it is—a mass of unrelated, traditional pieces of knowledge put together with little or no regard of the educative process or the lives and instincts of the children. Nor is it reasonable to expect that the talents and energies of the teachers can be released for effective, creative work so long as the formal examination is the end and aim of all instruction.

Since detailed recommendations in regard to changes in the course of study are given in the final report, only the general outline of the

changes needed will be referred to in this summary. The most fundamental change required is that the curriculum of the schools be revised so as to make it broader, more thorough, more vital, and more responsive to the needs of the children. Moreover, the course should be flexible enough to admit new material as it proves its value for the child's growth.

The survey of the schools and of the needs of Memphis shows that the course of study should include such subjects as elementary science and nature study, manual training, cooking, sewing, drawing, school gardening; and there should be adequate facilities and time for play and recreation. The schools should have auditoriums, laboratories, shops, cooking rooms, libraries, indoor play facilities, maps, charts, globes, motion-picture machines, and lantern slides.

Considering the fact that the schools of Memphis are already hampered for lack of funds, and are already confronted with serious school congestion, it might well be asked if the recommendations set forth in the report are not utopian in character and impossible for Memphis to realize at the present time. The survey staff, however, has borne in mind throughout the investigation that any program which ignored the present financial status of the schools and the ability of the city to finance the changes recommended would be of no practical value to the people of Memphis.

A study of the present school needs of Memphis, of the funds available to meet these immediate needs, and of the amount of money which Memphis is expending and could afford to expend upon her schools, proves beyond question that Memphis is financially able to carry out the program recommended.

At the present time the expenditure of Memphis upon her schools is far less than the average proportionate school expenditure of the cities of this country. For example, based on 1917–18 figures, the proportion of the total expenditure of Memphis which went to the schools will have to be increased nearly 20 per cent to reach the average proportionate school expenditures of the cities of this country. Of 219 cities, only 20 ranked lower than Memphis in this particular. Of the 219 cities, 185 expended more on their schools per capita of population than did Memphis, 25 of them expending more than double the amount. Of 24 cities considered for 1917–18, expenditures per pupil in average daily attendance, Memphis ranked No. 10 from the bottom, falling short of the average amount expended by $2.56 per pupil. Reckoned on net enrollment, Memphis ranked No. 12 in the list, falling short of the average in this particular by $5.65 per pupil.

Moreover, Memphis is financially able to spend more upon her schools. A comparison of the general tax rate of Memphis with that

of 219 cities for the year 1917–18 shows that Memphis had a lower corrected rate than 127 of the cities. When the city tax rates alone are compared, it is found that 195 cities had a higher corrected rate than Memphis. Again, Memphis, with a per capita true property value of $1,288, exceeded that of all the cities of the list except 77. It is clear, therefore, that Memphis is below the average American city in the amount expended upon her schools and that she is financially able to carry into execution the program which the survey staff recommends.

At the present time, however, since the fund immediately available to meet present school congestion and school needs is the sum of $500,000, with a possible bond issue of $2,000,000 two years hence, the survey commission makes the following recommendations in regard to the expenditure of these funds with a view not only of relieving school congestion but also of providing the enriched educational opportunities and facilities which the schools of Memphis so much need.

3. SCHOOL BUILDINGS AND SCHOOL CONGESTION.

Owing to the fact that Memphis up to the present time has not, for various reasons, undertaken to solve her school-building problem in a farsighted manner, a serious situation in regard to school congestion is now facing the board of education. The school buildings, as originally planned, were inadequate for a growing city like Memphis. The congestion has been steadily growing worse until in the present year (1918-19) there are 19,460 children, and a seating capacity for only 14,445. That is, there are 5,015 children in excess of seating capacity. Approximately 50 per cent of the 19,460 children in the 31-day elementary schools are found in 13 schools in the southern and southeastern sections of the city, and 72.5 per cent of the 5,015 in excess of seating capacity are also found in these schools. These 13 schools are: *White schools*—A. B. Hill, Cummings, Lauderdale, Bruce, Idlewild, Madison Heights, Peabody, and Maury; *colored schools*—Carnes, Charles, Kortrecht High School, La Rose, and Virginia Avenue. The children in excess of seating capacity are being housed in basement rooms which are often damp and cold; in portables of a most undesirable type, overcrowded, badly heated, and poorly ventilated; and in old dwelling houses utterly unfit for classroom purposes.

These conditions are such a menace both to the health and to the education of the children that the city of Memphis can not afford to let them continue. Moreover, in the Memphis schools there are

few auditoriums and practically none of the modern educational facilities, such as shops, laboratories, cooking rooms, drawing rooms, and gymnasiums, which are essential parts of modern elementary schools and which should be provided for in any farsighted building program.

There are two methods of meeting the school congestion problem in Memphis. One is the traditional method of reserving a seat for every child and leaving the classrooms unused when the children are using other facilities.

Under the traditional plan of school organization it would cost $3,509,000 to relieve present congestion in the 13 most crowded schools and provide for growth in these schools.

This expenditure, however, would provide only classroom accommodations and practically none of the modern educational facilities, such as shops, laboratories, drawing and music studios, gymnasiums, swimming pools, and auditoriums.

Moreover, since only $500,000 is immediately available, it would be impossible under the present plan of school organization to do more than relieve congestion in two schools, Bruce and A. B. Hill, during the coming two years. That would leave 11 schools without relief. Furthermore, the annexes for the two schools could not be erected in less than a year or two, so that for the present there would be no relief at all.

A SECOND METHOD OF MEETING THE SCHOOL CONGESTION PROBLEM.

A second possible method of solving the school-building problem of Memphis is what is commonly known as the work-study-play plan now in operation in some 30 or 40 cities in this country. The chief advantages of this plan for Memphis are (1) that it offers suggestions for meeting the congestion problem within the financial ability of the city, and (2) it also makes provision for such educational facilities as auditoriums, gymnasiums, shops, laboratories, drawing and music studios, nature study rooms, and swimming pools, which are now considered a necessary part of a modern school system, and in which Memphis is so lacking.

This plan developed in an attempt to solve the peculiar school problems created by the modern city. It grew out of a recognition of the fact that the rapid growth of cities makes the educational problem far more difficult than formerly; in fact, has created a new school problem.

The plan represents a change in the traditional method in that it breaks up the custom of having all children in classrooms at the

same time, and letting the classrooms lie idle when the children go to the auditorium, shops, and playground. In other words, it applies to the public school the principle on which all other public service institutions are run—that is, the multiple use of all facilities all the time.

HOW THE PLAN WORKS.

Briefly, the plan is this: A school is divided into two parts, each having the same number of classes, and each containing all the eight or nine grades. The first part, which we will call the "A School," comes to school in the morning, say, at 8.30, and goes to classrooms for academic work. While this school is in the classrooms, it obviously can not use any of the special facilities; therefore the other school—B School—goes to the special activities, one-third to the auditorium, one-third to the playground, and one-third is divided among such activities as the shops, laboratories, drawing and music studios. At the end of one or two periods, that is, when the first group of children has remained, according to the judgment of the school authorities, in school seats as long as is good for them at one time, the A School goes to the playground, auditorium, and other special facilities, while the B School goes to the classrooms.

EXAMPLE FROM A MEMPHIS SCHOOL.

This work-study-play method can best be explained, however, by applying it to one of Memphis's own schools, the A. B. Hill. This school had an original seating capacity of 540 pupils. It now has 993 children, or 11 classes in excess of seating capacity. There are 12 classrooms and one auditorium at present in the school. There are no other special facilities. The surplus classes are accommodated in two basement rooms and a portable building, all of which are really unfit to be used as classrooms. Needless to say, there are far more than 45 pupils to a class. To relieve only present congestion under the traditional plan, it would be necessary to put up 11 additional classrooms, which, at a cost of $16,000 per classroom, would amount to $176,000, and would accommodate only the present enrollment. It would also be necessary to buy land for playground purposes, as the site is too small.

Under the work-study-play plan this school would be made into a 24-class school. These 24 classes would be divided into two schools of 12 classes each. There are at present 12 classrooms in the school. These would continue to be used as classrooms. An annex would be put up containing two gymnasiums (3 units) on the ground floor,

one for boys and one for girls; a shop (1 unit), a cooking room (1 unit), a science laboratory (1 unit), a drawing studio (1 unit), and a music studio (1 unit), making 8 units, which, at a cost of $16,000 per unit, would come to $128,000. In other words, the cost would be $48,000 less than on the traditional plan; there would be provision for growth for at least one more class; and, in addition, there would be four types of special activities none of which the school has at present, and which under the traditional plan would have to be provided by erecting additional classrooms.

In other words, if the principle of multiple use is applied to public school facilities, it is possible to provide not only adequate classroom accommodations but also auditoriums, gymnasiums, and shops for the mass of children. In fact, accommodations may be provided in all facilities, if they are in use constantly by alternating groups, at less cost than regular classrooms alone may be provided on the basis of a reserved seat for every child. For example, in a 48 class school under the traditional plan 48 classrooms are needed in addition to all the other special facilities. Under the work-study-play plan only 24 classrooms are needed. The classroom, however, is the most expensive unit in the school, therefore, since only half the usual number of classrooms is needed, i. e., 24 classrooms in a 48-class school, the cost of the remainder is released for all the other special facilities.

But the important point about this reorganization is that all the children would have not only the same amount of time for reading, writing, arithmetic, geography, and history as formerly—210 minutes—but also 50 minutes of play every day, 50 minutes a day of auditorium, and 50 minutes a day of shopwork every day in the week for a third of the year; science every day for a third of the year, and drawing or music every day for a third of the year. At present the children get a 10-minute recess period for play, a few minutes for opening exercises in the auditorium, and little or no time for these special activities. Of course, each community would decide what special activities it wanted the children to have.

The following table gives a possible program for the "A School." It will be recalled that there are 12 classes in this A school, which are divided into three divisions of four classes each: Division 1, upper grades; Division 2, intermediate grades; Division 3, primary grades.

The "A School."

School hours.	Regular activities.	Special activities.		
	Academic instruction.	Auditorium.	Play and physical training.	Cooking, shop, science, etc.
8.30– 9.20	Arithmetic—Divisions 1, 2, 3.			
9.20–10.10	Language—Divisions 1, 2, 3.			
10.10–11.00		Division 1.	Division 3.	Division 2.
11.00–12.00	Entire "A School" at luncheon.			
12.00– 1.00	Reading—Divisions 1, 2, 3.			
1.00– 1.50	History and geography—Divisions 1, 2, 3.			
1.50– 2.40		Division 3.	Division 2.	Division 1.
2.40– 3.30		Division 2.	Division 3.	Division 1.

The "B School."

School hours.	Regular activities.	Special activities.		
	Academic instruction.	Auditorium.	Play and physical training.	Cooking, shop, science, etc.
8.30– 9.20		Division 2.	Division 3.	Division 1.
9.20–10.10		Division 3.	Division 2.	Division 1.
10.10–11.00	Arithmetic—Divisions 1, 2, 3.			
11.00–12.00	Language—Divisions 1, 2, 3.			
12.00– 1.00	Entire "B School" at luncheon.			
1.00– 1.50		Division 1.	Division 3.	Division 2.
1.50– 2.40	Reading—Divisions 1, 2, 3.			
2.40– 3.30	History and geography—Divisions 1, 2, 3.			

FLEXIBILITY OF THE PROGRAM.

Another advantage of a program based upon the multiple use of facilities is that it not only makes possible modern educational advantages for children, but it also makes it possible to have a flexible program. A study of the different types of these schools in different parts of the country shows that it is possible for a community to adapt the program to its particular needs. For example, it is possible to arrange to have the school begin at 8.30, 8.45, or 9 a. m., or any other hour desired. Or, if the school begins at 8.30 and certain parents object to having their children leave for school so early, it is possible to put these children in the "B School," which begins the day with special activities; in this case the children can omit the play period from 8.30 to 9.20 and arrive at school at 9.20. Or again, many parents prefer to have their children take special music lessons after school. It often happens that home work or staying after school interferes with these lessons. Under the work-study-play plan, it is possible to put such children in the "A School" and let them omit the play period or the auditorium in the afternoon from 2.40 to 3.30 p. m. There is, of course, no reason why children should not be given credit for these

out-of-school activities if so desired. Again, a child who is backward in a special subject, such as arithmetic, and is being held back in a grade because he can not master that subject, can double up in arithmetic for a number of weeks by omitting the auditorium period until he has made up the work and is ready to go on with his grade. As for the special activities, each community and each section of the city can have the special facilities which the school authorities and parents desire. Possibly one of the most desirable features of the program is that the children are given an opportunity for experience in various lines of work and study from the third or fourth grade through the eighth or ninth, so that they have some idea by the time they reach the upper grades what particular type of activity they are most interested in.

PROVIDES FOR THREE OR MORE JUNIOR HIGH SCHOOLS.

Finally, one of the advantages of the work-study-play plan is that it makes possible the junior high schools, which the people of Memphis so much desire. At present there is no question but that the city school system is failing to hold the children of the seventh and eighth grades. These children are drifting out of school at the very time in their lives when they most need its guidance. With the enriched school life which the junior high school would give these children, it would be possible to hold a far larger number than is now the case. But under the cost of the traditional plan there seems little prospect of the city having more than one junior high school within the next four or five years, and even then it could be put up only by leaving some elementary school in the midst of the present deplorable congestion. Under this plan, however, there is no reason why the city should not have three or four junior high schools by putting up new buildings which would accommodate nine grades. The upper three grades could then be grouped as a junior high school, and the pupils in these grades, as well as those in the lower grades, would have in these larger schools much richer facilities than if the two divisions were housed in separate buildings. Indeed, it is possible to have all 12 grades in the school, if the community desires it.

A BUILDING PROGRAM FOR MEMPHIS BASED ON THE WORK-STUDY-PLAY PLAN.

The board of education has asked the survey staff to suggest a building program based on the fact that $500,000 is immediately available, with a possible $2,000,000 two years hence. We have suggested how far this would go under the traditional school plan.

Under the work-study-play plan.—An expenditure of $2,501,000 would give the following results:

1. Five new buildings of the most modern type could be erected—one for Cummings and Lauderdale, one for Peabody, one for Idlewild, Lenox, and Madison Heights; one for La Rose and Kortrecht High School (colored), and one for Virginia Avenue (colored).

2. Immediate relief could be given to the children in 8 of the 18 most congested schools. By reorganizing these schools on the work-study-play plan and by using modern movable buildings until the new buildings for these schools can be erected, all the children in the eight schools could be given not only classroom accommodations for the regular amount of time in academic work, but also opportunity every day for work in such special activities as shops, nature-study rooms, gymnasiums, auditoriums, and playgrounds.

3. A permanent annex to Bruce could be erected immediately which, with the main building, would accommodate a 24-class school. An addition could be erected at Maury which, with the main building, would take care of both Maury and Madison Heights.

4. Additional shops could be provided for the Vocational School.

5. Fifty thousand dollars could be expended in general repairs to all buildings.

To sum up: As was pointed out, there are now 9,438 children in the 18 most congested schools in the city, 3,718 of whom are at present in excess of the seating capacity of the schools. But the organization of these schools under the work-study-play plan will do more than relieve congestion. It will give not only classroom accommodations for the full amount of time for academic work, but it will also give to all the children in the schools an opportunity for play every day in well-equipped playgrounds and gymnasiums, and an opportunity for work in well-equipped shops, laboratories, drawing and music studios, libraries, cooking rooms, or any other special activities desired by the community and school authorities.

Moreover, by lengthening the school day this plan eliminates the street time of the child and keeps him wholesomely busy at work, study, and play. It also makes possible a better cooperation between the school and other child-welfare agencies. For example, the work in the library can be part of the regular school work, so that the excellent work already being done by the Memphis libraries in cooperation with the schools can be enlarged and extended. Again, as this plan provides for playgrounds in connection with each school, and as these playgrounds are in use every hour of the day, under the supervision of trained playground instructors, it is not necessary for the city to support separate playgrounds, as is usually the case. More-

over, the playgounds are used more because they become the natural recreation centers for the children and the adults of the neighborhood.

The work-study-play plan, though not the traditional school plan, has had sufficient trial to show that it is sound not only from an economical but from an educational standpoint. Since under the present plan of school organization it would cost $3,500,000 for the city of Memphis to meet its school congestion problem without providing for the modern educational facilities, whereas the expenditure of $2,501,000 under the work-study-play plan would not only solve the present congestion problem, but provide modern educational facilities and a far richer school life for the children than is possible under the former plan, it would seem obvious that the work-study-play plan is the best solution of the school problem of Memphis. It is therefore recommended that the 13 most congested schools in the city be reorganized on this plan, not only as a means of relieving congestion, but of giving an enriched education to the children of Memphis.

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