## PROJECTS IN THE GRAM-MAR GRADES

An exposition of the whole-hearted, purposeful act carried on amid social surroundings

THERE is no doubt that you have heard the term project defined many times, not only here at the meetings, but at any educational conference you have recently attended. To make clear the discussion which is to follow, I believe a clear conception of the term is necessary. Dr. Kilpatrick says it is a whole-hearted, purposeful act, carried on amid social surroundings. Many of us have the idea that a project means that the children must be doing something with their hands. Of course children are thinking as much when they are working with their hands as when they are dealing with abstract ideas. The point I wish to make is that some projects need no handwork to aid pupils to obtain the desired results. There may be as many varieties of projects as there are purposes in life.

This morning I shall try to give to you some practical suggestions for carrying out your work in teaching through projects. I shall discuss how we can stimulate pupils to desire to solve problems, the important part the teacher must play in guiding pupils, some way by which we can check up the work so that we shall know what we have accomplished, and how we can best organize our projects so that the highest educational aims will be realized.

Some teachers believe that they should wait for the children to suggest some purposeful activity. Dr. Kilpatrick says, "Either the child or the teacher may originate the suggestion. The essential point is that while the activity is in progress it operates as an inner urge to define the end, guide the pursuit, and supply the drive."

The schools in which many of us are teaching are just breaking away from the type where seats are nailed to the floors and children almost nailed to the seats, where it is considered a crime if a child asks a question or leaves his desk, and where the teacher

asks rapid-fire questions which are answered by the pupils in the exact words of the book. For awhile at least we shall have to use every means in our power to stimulate children to ask questions and make suggestions. They have become used to accepting without a murmur the tasks which the teacher has set, not with whole-hearted interest, but as though it were decreed by fate.

The point of contact in launching a project is the activity most clearly related to pupils' lives and interests at the time. A teacher, teaching fourth-grade children in a place with which she was not familiar, asked the pupils for information concerning the city. The children's interest seemed to center about a Colonial mansion which had been opened to the public as a museum. Some of the pupils had already visited it, and suggested that it would be nice if everyone in the class could see it. When they were asked why they thought it would be of interest to the other children, they said because there were so many curious things there that we do not use now. Then followed a brief description of some of the furniture and "curious things," which had been seen by the children who had already made the visit. Of course they were all interested and delighted with the prospective visit. It was quite a success. They saw all sorts of Colonial things-foot-warmers, candle-moulds, spinning wheels, Colonial dresses, plate-warmers, four-poster beds, etc. During the discussion which followed, some child asked, "Why is it that we don't have those things now?" From that question, the problem arose "How did Colonial life differ from the life of today?" The point of contact was the visit to the Colonial home and through that visit the pupils were stimulated to ask questions. Out of the question grew the problem and out of the problem grew the project.

In one of the fifth grades in Winchester, the pupils discovered after they had been weighed and measured by the school nurse that many of them were underweight. The teacher's question, "What can we do about it?" led to a splendid project on Better Health. The teacher stimulated the pupils to proceed further than merely finding out that they were under weight.

Some fourth-grade children were discussing the number of automobiles they had

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seen pass through Winchester from other states. At the teacher's suggestion, they decided to find out why cars from all over the country went down the Valley Pike. The discussion aroused so much interested that the pupils undertook a detailed study of the Shenandoah Valley. The teacher originated the suggestion, but the children accepted it as their own.

A second grade was stimulated to make and dress some dolls by another second grade sending children to show the ones they had just completed. Immediately they all said, "Can't we make some, too?"

Besides excursions and visits made to various rooms, pictures and models are a great help in stimulating pupils. It is a good plan to open books on the reading table to some interesting picture or story, or to mount pictures on bulletin boards, or exhibit charts, showing results of standard tests. A host of questions and many suggestions for projects will soon arise. It is our duty to guide the pupils to think carefully and choose wisely.

After the project had been decided upon, the teacher must still stimulate and guide the children. Bonser says that we must remember that all expressed interests of childhood are not of equal worth, that "Children express many interests which, if indulged, lead to almost nothing of value, and frequently to the development of habits and attitudes that are unsocial or anti-social. One very important function of the teacher is to select and direct the interests and activities of children so that they may continually lead forward and upward to higher stages." Projects begin on the level of the interests of the children. They should not stay there. Gradually through the wise guidance of the teacher, they should be brought to a higher level. The teacher should be able to see these opportunities for guidance, and to direct the work accordingly.

While making furniture for a Colonial house which the children had built, a teacher found that the pupils knew how to use the clay, paper, and wood with which they were making it, and that they had the idea of size and proportion, but they were simply making furniture, not Colonial furniture. Here was an opportunity for her to lead the children to a higher level. She was wise enough to

see and take the appropriate lead. A conference of the group was called, the furniture was brought to the meeting and compared with pictures and models which were in the room and the furniture in the Colonial house they had visited. It was not long before a child said, "Our furniture is nicely made, but it isn't Colonial."

Then they were willing to re-make and correct their mistake. There was no coercing. The children felt within themselves the inner urge to make their house truly Colonial.

Group discussions afford one of the best opportunities for teacher-guidance. The second grade class which had been stimulated by another class to undertake making and dressing dolls, a project in which the initial interest was manipulated, was led by a teacher to become extremely interested in the growing and manufacturing of cotton through a group discussion concerning the material to use for the dolls' clothes.

In the same way, the class of children who were underweight were led to see the necessity of pure food and fresh air through the teacher's guidance, and through her ability to follow appropriate leads.

When we have completed a project, how can we know what the pupils have actually learned? I believe that the lack of checking up and summarizing is one of the greatest dangers of teaching through projects. Bonser again says, "The interest in moving forward to new activities tends to cause a neglect to summarize, emphasize, and resolve into usable form the essential elements of thought content called forth in the work, leaving subject matter in isolated fragments rather than as parts of a gradually expanding organization of thought." He suggests that as the general principles running through our projects recur they be emphasized and at the end generalized. It is advisable to stop often and say "What have we learned so far?" "Is there anything we need to spend more time "What facts should we learn never to be forgotten?" The use of standard tests is a valuable means of testing progress, if the results are used intelligently.

But there is one thing upon which we have not touched, something more important than the ability to read well, or to manipulate tools which can not be measured by any standard tests but which we must constantly

beware of and constantly ask ourselves about. I am speaking of the attendant or concomitant learnings. When a project has been completed, what has the child learned of the correct relationships between him and his teacher? Has he learned the right way of attacking a problem? Has he learned to be honest? Has he learned to play fair? Has he learned to think of the teacher as a friend and not a tyrant? These things we can not measure, but in all our work with the children we are helping them to form right or wrong attitudes. Teaching through projects affords extraordinary means of aiding children to form right attitudes because they are living, not preparing for future life. To understand more fully the values of concomitant learning, one should read Dr. Kilpatrick's articles in the January and February (1922) numbers of the Journal of Educational Method.

Before going farther, I wish to speak briefly of the place drill has in project work. Some teachers believe that it is a sign that they are poor teachers if they stop to drill. This is not true. Bagley says that it is sometimes necessary "to take a procedure out of its purpose context and give it a little time and attention in its own right." Dr. Bonser says, "There must be some drill in a systematic way after values and meaning have been made apparent."

Personally, I have rarely found a sufficiently strong purpose for adequate drill, but I have found that children enjoy drill for its own sake. It demands a quickness and alertness that they really enjoy. It has the element of competition which is present in the games they play. Just a word of warning here. We must be sure that the child finds his greatest satisfaction in competing with his own previous record. Many of the pupils in Winchester are keeping their own individual graphs in arithmetic and spelling, so that each child will be able to know his own progress. A class graph is kept on the board in the same subjects. In this way, a child does not become discouraged trying to reach the high standards of one with a higher intelligence quotient, neither does one with a high score feel that he need not work because he has a higher standard than other pupils in his class.

"At what time during the activity should

we stop to drill?" one might ask. The time to drill is when the need for drill is felt by the class. When the pupils were measuring the material for the Colonial house, they found that they needed more drill on measurements than they could obtain from measuring the wood they were using. Immediately a number of days was spent drilling on it. Again, last year, the pupils found that it took them much too long to obtain information for use in their geography and history. As a result, five minutes a day was set aside as a drill period to increase the rate of silent reading. At the end of six weeks, a marked improvement was shown. Another class discovered that it was below grade in spelling ability. The Ayers' spelling list was posted, and the pupils drilled themselves in spare moments on the words listed there.

So that we can best guide our pupils, check the results, and realize the best educational aims, projects should be planned by the teacher with much care and thought. We should have in mind very definite objectives to be reached through the project along the lines of knowledge, attitudes, skills, interests, and habits. The details of the plan should not be followed. The making of it, however, will enable us to guide the pupils in their activities and attain the desired results.

To accomplish this, the teachers in Winchester are making two charts. On one they have written the project as they have planned it, and as they think the pupils will work it out. The other is a progress chart, on which is recorded the progress of the activities. It varies considerably from the first chart.

Pupils may plan to build and furnish a Colonial house instead of Colonial rooms, or they may decide that they would rather learn certain facts about a country by making a map on the sand table instead of making a poster as the teacher had planned. Perhaps we'll find that some of the details are too difficult, and that something simpler will have to be substituted as happened in this case. Often times, quite the other way, we find that the children are better planners than we The pupils of the sixth grade decided that they would study the different types of Greek architecture so that they could model the columns of the Parthenon correctly, which they were making from clay.

The most important thing to remember is

that it is attitudes, skills, interests, and habits that we wish to develop and that teaching through purposeful activities affords the best opportunities for this development, because so far it has been the best means of putting the child in "complete possession of all his powers," which I believe, is the true aim of education.

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## AN AMERICAN IDEAL

Prepared by the Research Division of the National Education Association

THE AMERICAN IDEAL," says Secretary Hughes, "is the ideal of equal educational opportunity, not merely for the purpose of enabling one to know how to earn a living, and to fit into an economic status more or less fixed, but of giving play to talent and aspiration and to development of mental and spiritual powers."

How near are we to realizing this ideal? The man in the street will tell you that it has been practically realized—that American children are offered equal educational opportunities and that if anyone does not get an education it is his own fault. That this popular conception of the adequacy of our educational system is far from the truth is shown by an examination of the facts.

An opportunity to get an education that gives "play to talent and aspiration and to the development of mental and spiritual powers" can not be given where schools are not in session. Are all American children offered equal educational opportunities as measured by the length of the terms our schools are in session?

State	Average school session in days
New Jersey , .	189
New York	188
Arkansas	
South Carolina	

Let us grant that the schools of South Carolina are equal to those of New Jersey in everything except the length of the term maintained. Then the child in South Carolina with 109 days of school has 58 per cent of the opportunity to attend school that the New Jersey child has with 189 days of

school. If 59 per cent equals 100 per cent, then the children of those States have an equal educational opportunity.

But the "average school session" does not tell the full story. Because a State maintains an average term of 100 days does not mean that all children in the State are able to attend school for that period each year. If one district maintains no school and another a standard 200-day school the average is 100. Just such inequalities as this exist in many States. In 1920, 120 Arkansas school districts levied no school tax at all; over 70 pursued the same policy in 1921. In at least two States there are some districts where no public school will be held this year, or if any, only the month or so possible with State aid, according to Mr. Alexander of the Educational Finance Inquiry. A bulletin just issued by the Bureau of Education shows that in twenty-four of our States there are 227,570 children living in districts that maintain school less than four school months per year. In these same States there are at the same time over a million children who have an opportunity to attend school over nine months a year.

What is the practical effect of such inequalities? Suppose that a South Carolina child wishes to cover the same amount of work that the New Jersey child covers in the eight years before he graduates from the elementary school. The child in South Carolina must go to school the full term for fourteen years to do this. If he goes to school every day from the time he is six until he is twenty he will just be able to do it. Similarly the quarter of a million children now living in districts with four months of school must go to school the full term for eighteen years to do the same amount of work that is covered in eight years by children living in school districts maintaining school for nine months. Few children are able to continue their elementary school training for eighteen years. The result is that thousands of children receive but half, or even less than half the amount of elementary education that others receive.

Next, let us consider the opportunity that American children have to learn to read and write. Reading and writing has long been looked upon as the very foundation of an education. Do all children have an equal