

► The classes were meeting the needs of students and were helpful in furthering the development of good citizenship.

► Even though the emphasis in the effective learning classes was on new experiences, academic learning was comparable to that of pupils in traditional classes.

Briefly summarized, the elements in the use of the method are:

1. A group of teachers and administrators truly concerned about the improvement of a situation
2. A problem which presents a real challenge to the group
3. A relaxed situation in which there can develop a spirit of cooperation, a feeling of success, and a sense of security among the members of the group
4. Sufficient time for planning
5. The use of research methods in getting answers to questions
6. The use of consultant help

7. Cooperative planning and decision making

8. An action program resulting from the decisions

9. Adequate communication with all persons involved

10. Continuous evaluation.

Our experience with the method leads to the conclusion that it is effective in curriculum development. It is not necessary that an outside group be available to stimulate and initiate such a curriculum program. A prerequisite, however, is that teachers be truly concerned about curriculum improvement and that leadership exist within the group. The essential feature of this method of curriculum development is that those whose responsibility it is to put the changes into effect must share in developing them. Such a method can lead to continuous improvement in the school program.

Developing an Improved Primary Curriculum

ALLISON DAVIS

On the basis of extended observation of classroom activities and intensive research in mental problem-solving while developing new intelligence tests, Allison Davis, professor of education at The University of Chicago, outlines basic criteria for the development of a motivating and realistic curriculum in the primary grades.

TO LEARN the true nature of schools, or of any other institution, one must live in them. With this conviction, the writer has observed and analyzed activities during the last five years in more than 100 schools and 500 classrooms in

several regions of this country. Both pupils and teachers not only were observed in the classroom, but also were informally interviewed concerning the activities in their classrooms. During the same five years, while developing



Courtesy San Diego County Schools

new intelligence tests, we were carrying out intensive studies of mental problem-solving. This extended study of the intellectual abilities of children enables us, we believe, to judge more accurately than would otherwise be possible the true value of the current classroom activities.

THE SITUATION IN THE SCHOOLS

In the schools themselves, what was the situation? In 100 schools, in seven populous states, we found these to be the major factors in education.

Emphasis on Discipline

Most teachers, facing a curriculum which cannot hold the interest of their pupils for as much as a small fraction of the five hours daily spent in school, have made "discipline" their chief concern. This primary emphasis upon "discipline"—which actually consumes most of the energy of teachers in low economic areas—is largely due to the fact that the present curriculum has no meaning for most pupils. Thus the efforts of teachers must be directed chiefly toward suppressing the restless-

ness and the frustration-responses of the pupils.

"Discipline" varies in method. It includes whipping children with a strap and locking them in rooms; screaming at and threatening children with expulsion, the juvenile court, etc.; the imposition of various forms of daily "self-administered" punishments, such as compelling second grade pupils to place their heads on their desks when visitors enter a room, and to fold their arms and stand silent in line; or the routine punishments of forcing children to stand in a corner, to write a sentence 100 or 500 times, to sit outside the classroom door in public disgrace, or to suffer other means of public humiliation before their group. Because most children identify with the child who is punished, these methods intimidate not merely the "punished" child but nearly *all* the children in the room. They know that the same thing may happen to them. The constant struggle necessary to maintain control thus further reduces interest in the curriculum and makes learning a punishing situation.

This basic dilemma in elementary education originates not in "bad" third and fourth grade pupils, but principally in the pupils' profound *lack of interest* in classroom activities. School subjects fail to motivate most pupils; they see no point to these activities, nor do they look forward to them with any pleasure. Therefore, they have to be driven by competitive pressures or by the fear of discipline (a fear instilled in the first or second grade) to read their lessons and to do their sums.

Lack of Motivation and Understanding

As a result, the majority of children do not understand the work supposedly "learned" in school. The school gives them neither motivation nor understanding; it gives them only "practice." The average pupil learns to read well or to spell or to memorize his multiplication tables chiefly through his parents' efforts, or through the help of his older brothers and sisters. All middle-class parents know this to be the case. Teachers generally grant this to be the truth, but attribute it to the "lack of time" in school, rather than to the pupils' lack of interest in the curriculum.

Parents themselves, however, know that the children actually are bored with the work and do not understand what has been "taught" at school. The average parent, finding that his child does not understand his "homework," discovers no solution except to force him to memorize it. We are driven to this universal rote learning by a curric-

ulum which has little or no intrinsic motivation, and little relation to the experiences of children outside the academic world of the school.

This kind of education, devoted to a curriculum which emphasizes the reading of unrealistic stories, the memorizing of textbooks and of the multiplication tables, the reciting of "current events" memorized verbatim, the "reasoning out" of unrealistic arithmetic problems, usually also written unintelligibly, and still other meaningless tasks, discourages the desire for learning and finally wastes the abilities of most children.

Ralph W. Tyler, a leading authority on curriculum construction and evaluation, summed up the inadequacies of the present curriculum in his address upon the occasion of the Centennial observance of the American Association for the Advancement of Science. Dr. Tyler said, "With a few excep-



Courtesy Denver (Colo.) Public Schools

Do the children understand why?

tions, the public schools in this country are following a curriculum that depends primarily upon memorization and mere verbal facility."

Inadequate Curriculum

The ultimate source of the inefficiency of the schools, then, is the curriculum. This problem is extremely complex. It is made especially difficult by the presence of different socio-economic groups in the school, and by the fact that the secondary and collegiate curricula also are almost completely academic and unrealistic. The place to start to develop a motivating and realistic curriculum is, of course, the primary grades.

DEVELOPING THE CURRICULUM IN PRIMARY GRADES

The basic criteria for constructing a sound primary curriculum, most educators agree, are two:

☐ The primary curriculum should help the child begin to learn the skills and basic cultural goals of his society

☐ The primary curriculum should help the child develop the basic mental functions of which he is capable (not merely observation, description, memory, and simple association).

These basic criteria may be attained by a curriculum which uses problems and experiences of the following types:

Motivating problems. The problems and experiences included in the primary curriculum should be intrinsically interesting to children of ages six to ten. They should be chosen from universal mental areas, but they should be limited chiefly to specific examples which children of ages six-ten actually meet in these universal mental areas.

Problems common to all socio-economic groups of children.

Just as the failure to meet this criterion has invalidated most intelligence tests, so the failure of reading materials and arithmetical materials to deal with *real and common* experiences of all socio-economic groups has led to a great waste of children's abilities. Moreover, the words, pictures, and other symbols in which the experiences and problems are expressed should be common to all socio-economic groups. Otherwise, we shall not be able to communicate the problems and experiences to the more than half of our pupils who come from the lower socio-economic environments. If they are to develop their mental functions, they must first understand the phrasing of the problem, or experience, to be analyzed. Simple, common, clear words are the basis of the best English style—and this principle of the best usage should hold also for intelligence tests and the curriculum. Arithmetic problems, music lessons, history, geography, and the primer stories are written usually in jargon, which is both uninteresting and unclear.

Problems which help develop the basic mental functions.

Using our five-year study of intelligence as a guide, we should consider the basic mental functions to be:

- a. Symbolic interpretation (identifying words, numbers, pictures)
- b. Observation and description
- c. Memory
- d. Association
- e. Reasoning
- f. Exploration—Inventiveness
- g. Constructiveness—Creativeness
- h. Testing reality (empirical criticism).

Most of the current primary curriculum is devoted to the first four types of mental functions. The first area, that of using symbols, is very poorly served in the schools because neither motivation nor understanding is usually at-

tained in using verbal or numerical symbols. Evidence of this weakness is furnished by recent intensive studies at several universities, which have shown that most arithmetic teachers do not understand the meaning of the operations which they "teach." It has long been established, moreover, that our primary and elementary curricula do not teach most pupils to read with comprehension.

To the last four and most important areas of mental functioning—reasoning, exploratory inventiveness, testing reality, and constructiveness, which Susan Isaacs found were used regularly by children as young as five years—a primary child is allowed by the present curriculum to devote only the smallest fraction of his time. In our observations of classrooms, we found that in only one of every fifteen classrooms did the pupils engage in any activities in which they could learn to reason, to explore, or to think constructively. Everyone should visit a number of classrooms to judge for himself.

Deficiencies of the Present Program

The usual defense of the present curriculum claims that this curriculum helps children to develop certain mental "skills" or "faculties," which then "generalize" to other mental activities. We now know, however, that the amount of "generalization" from spelling, arithmetic, grammar, and which is effective in reasoning about social and economic realities, or in inventiveness, or in constructiveness, is very slight. Generalization is effective only between very closely related types of learning.

It is also claimed in defense of the present curriculum that it develops good "study habits," teaching pupils how to attack mental problems. Beginning in 1945, we made a study of

the methods used by children of ages six to ten to solve a wide variety of problems. We asked children to tell us how they solved specific mental problems. We found that there are a great many different correct ways to solve a given type of mental problem. One cannot teach study habits, in the sense of a basic logical method of solving problems. Children, if motivated to solve a problem, will find many correct ways of doing so. In an extended study of problem-solving by college students, Professor Benjamin S. Bloom, working independently, has discovered that college students vary greatly in the methods used in getting a correct solution to a given problem.

It is true, therefore, that the present curriculum neither develops the "muscles of the mind" as was once assumed, nor teaches study habits in the sense of basic logical approach. Study habits are the result of motivation, of confidence, of patience, and of various types of intelligence, and these result in many different kinds of mental attack.

Developing a Functional Primary Program

We are convinced that, in order to develop good study habits—and not one elementary or high school pupil out of ten has good study habits—children must have curriculum experiences which interest them, which are expressed clearly in common symbols, and which give them the opportunity to use their reasoning and their exploratory and creative mental functions. These latter functions, together with observation, memory, and association, are all essential to successful mental

attack upon problems in both school and life. But we hold, and we imagine few will deny, that the majority of important mental and emotional problems in life depend for their solution chiefly upon the processes which lead to understanding—and these are reasoning, insight (exploratory inventiveness), and constructiveness.

In constructing new tests of intelligence, Robert D. Hess and the writer have discovered that there are *many kinds of reasoning problems which interest children keenly, and which also correlate as highly as do "standard" intelligence tests with reading. Yet our reasoning problems are not like the present "academic" curriculum, nor do they require any reading.* It is clear, therefore, as Mr. Hess has stated, that there is some underlying "ability to learn to read" which is strongly related

to reasoning. If the schools spent more time on developing reasoning and insight in the primary child, and less time upon trying to force reading in the first or second grade, it is very probable that much of the real mystery which now exists as to how and why children learn to read, would be cleared up. Our tests indicate that "ability to learn to read" includes large components of reasoning and insight.

The new primary curriculum will have to be invented and constructed chiefly in the schools. In Rock Island, Illinois, and in several other efficient systems, pre-primary and primary groups have been introducing new experiences and types of mental problems into the curriculum, seeking problems which are realistic and interesting, culturally common, and representative of the basic mental functions.

Pre-Registration for ASCD Meeting

Have you sent in your Pre-Registration for Study Groups? Pre-registration blanks were sent with the November News Exchange. Look in your desk drawer, won't you, and see if it isn't there among the "things to do."

The study groups are a major feature of the ASCD meeting. We want you to participate in the study group of your choice; but don't wait until it's full. Also, it will facilitate the pre-planning, and make for more smoothly operating and productive group meetings, if we can send the names of group members to the study group leaders early.

If you'll send us a postcard requesting a blank for Pre-Registration for Study Groups, we will immediately send the list of topics and a questionnaire. *Return in the next mail* to ASCD, 1201 - 16th Street, N.W., Washington 6, D. C.

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