

# Tools for Learning

## SELECTING ART, SCIENCE, AND PLAY MATERIALS

PAUL J. MISNER AND PEGGY DUNN BROGAN

THE STORY of Mark Hopkins and the log has served the useful purpose of emphasizing the very great importance of the teacher in any scheme of education. It is quite true that beautiful school buildings, elaborate equipment, and unlimited instructional materials do not, in themselves, assure good teaching. It is equally true, however, that the most imaginative, creative, and resourceful teacher will be handicapped seriously in his efforts to teach well unless he has something more than a log and a pupil.

Unlike Mark Hopkins, the teacher in our modern schools is attempting to do something infinitely more difficult than to lecture, exhort, or advise a single pupil. He is seeking to guide the growth and development of many pupils who differ significantly in their needs, interests, and abilities. The teacher in our modern schools is not satisfied with the verbalization, memorization, and recitation that characterized much of traditional teaching. He is striving to provide

opportunities whereby his pupils will be encouraged to think, to express themselves, and to apply the knowledges and skills which they learn. To achieve these purposes, there must be available in the modern classroom a variety of materials and supplies. "Learning to do by doing" is mere wishful thinking unless pupils have something with which "to do."

Much of the criticism that is made of "activity programs" stems from our failure to provide a learning environment within which pupils can engage in purposeful, constructive, and functional activities. We pay lip service to the excellent criteria of aiding the mental, physical, social, and emotional development of the child, but fail to realize the importance of equipment suitable for such an undertaking. There is still a tendency to think of paint, clay, blocks, science equipment, and the like as "added frills" or "teaching aids" which are intended to soften the blow of "real learning." School days are divided into "work periods" at which time books, paper, and workbooks are used, and "free periods" when children "stop work" and choose from among the "added frills." In reality, such equipment can serve a real and definite part in the school's attempt to aid a child in his development, and the purchase of such equipment should be made in terms of actual needs.

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*Paul J. Misner, Superintendent of Glencoe (Ill.) Public Schools, and Peggy Dunn Brogan, teacher in the Glencoe schools, tell us that "learning to do by doing" is mere wishful thinking unless pupils have something with which "to do." As an aid to teachers and administrators in choosing the things with which "to do," the authors suggest here some criteria for evaluating art, science, and play materials as instructional equipment.*

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In the first place, this question must be asked: Does it provide some specific and necessary part of the curriculum? The reluctance on the part of many school boards to spend large sums of money on equipment which is requested in vague terms such as "providing a pleasant environment," "aiding the over-burdened teacher," "modernizing the curriculum," is completely justifiable. The teacher making requests in this manner does not himself understand the real significance of this type of equipment. However, the teacher who does understand its importance will be able to make requests in terms of definite educational criteria and will use the materials to advantage. The following "tried and true" standards for evaluation may be applied to a set of blocks just as aptly as to any other phase of the curriculum.

1. *Will it aid the child in his mental development?* The day is fast disappearing when we measure a child's mental progress in terms of what level book he is reading or how well he can tell back the answers some teacher has told him. There is increasing importance placed upon the ability to think, organize, carry out plans. It is in this area that the science and play material are so important.

A kindergarten child can't read a book on how to plan something and carry out those plans. He can't even sit still long enough to listen to his teacher lecture on the subject. But he can face and solve the problem in a meaningful and direct way if his classroom has wisely chosen building blocks and boards which will stimulate him to want to build a bridge "that will really work." A high school boy can read ten

books on the importance of the controlled experiment in science without understanding until he is faced with a real problem which he must solve through the controlled experiment technique. And such experiments require laboratories. The beginning, first grade child can only read "Baby goes up, up, up," but his mind can be discovering scientific truths if his room is equipped with a scale, magnet, and similar devices which invite learning.

2. *Will it aid the child in his physical development?* The war has once more brought home to us the importance of physical fitness. Gym classes and recess periods are no longer thought of as breathing spells intended to make it possible for the children to sit still another two hours. From kindergarten through high school, gym classes are important, and there is proper equipment for all age levels of children. Apart from actual gym equipment, the play and art materials are important in this area. Blocks that are big enough to develop shoulder muscles, large amounts of clay which help develop strong hands, balancing beams, and other devices for developing motor skills are all important.

3. *Will it aid the child in his emotional and social development?* From one point of view, all of the materials enter this part of the picture because emotional and social development depend also upon mental and physical development. But in addition to this over-all emphasis, it is important to lay special stress on the art media in this particular area. The importance of self-expression to the well-adjusted child is readily recognized, and, if individual differences are to be met, real self-expression cannot come from the traditional picture

which saw thirty children using thirty sheets of paper and thirty pieces of chalk to produce thirty petunias copied from the model on the teacher's desk. The materials must have variety, challenge, and suggest creativity. Also, it is important to have materials which suggest the utilitarian values in art work. Making posters for the U.S.O., bulletin board decorations "for my school," and reading charts for the second grade all provide socializing experiences.

Granted, this list is nowhere near complete. It is meant to be merely suggestive. If it results in a little reflective thinking on the problem of "what material should I have and why should I have it?" it will have served its purpose.

*Next month Lucile Allard, Supervisor of Elementary Education, Garden City, N. Y., will discuss "Helping Boys and Girls Understand Themselves."*

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