which should help the teacher to free his intellect for effective and efficient use in all areas of functioning. When a teacher knows the potential of his pupils, he can easily rise to the challenge of bringing it to realization. Equally so, if the test evidence (not the scores) and the teacher's evaluation of the pupil yield no shred of evidence for better than a borderline defective level of functioning, then the teacher can be spared the fruitless effort of trying to develop an inadequate intellect.

Make the tester prove the score. Insist that he describe the pupil's pattern of intellectual functioning. This understanding of a child's intellectual development, coupled with the teacher's great advantage of daily observations, will enable the teacher to arrive at those rare common sense solutions to many of the learning problems of his pupils.

CORDELIA L. STILES

Creative Use of Space, Time and Materials

Attention to children's needs and expanding interests can furnish many cues to creative living and learning in the classroom.

CHILDREN need to live in environments rich with opportunities. As they move about and explore, question and discuss, select and choose, doubt and believe, laugh and enjoy, make friends and construct objects, listen and observe, children show in various ways their desire and need for change in themselves and in things around them.

In recent years more attention has been given to providing new buildings with larger classrooms and more space inside and out-of-doors. Apparently, though, not enough effort has gone into the actual planning for the use of these extra spaces. This, of course, is not surprising because until very recently most school people did not exercise more than traditional concern regarding the use of school buildings and school grounds.

In many places today there are not enough classrooms to go around and often the school day seems too limited for dealing with the many areas of the curriculum with which each child who passes through the elementary school must have contact. It is, therefore, all the more necessary for those of us who are responsible and accountable for school programs to make certain that the content and experiences selected are those needed for the development of specific understandings and attitudes that will result in acceptable behavior in the children who are currently attending school. Educational leaders themselves must seek clearer insight if they would attempt to help children and teachers increase their understandings and improve their levels of performance. Almost any classroom of average size, if creatively used, may become a place of challenge and
growth for children and others who share this environment. Such creative use of space in a school setting is something that derives through insight and hard work by teachers, children and parents after the careful selection of a problem that is real to everyone concerned. For many, a lack of recognition of problems is the greatest hindrance to creative work. For some, attempting to find a way to initiate change is tremendously distressing.

Some of the teachers of Charlotte began a search for their problems by taking an objective look at their schools while away from the home scene. They went to see what was being done in other school systems. Classroom teachers, supervisors, librarians and principals, some of them parents of school children, took trips to a number of systems in several states. At first the question, “Why is this trip being made?” was asked by many teachers. “We hear that Oak Ridge or the Parker District or some other place has an outstanding system or an outstanding program. We want to see what they have and observe the notable features,” was the usual reply. Several school days and a weekend were sometimes spent by a group of about 30 or more volunteers in exploring and observing the situations. Some of the spontaneous questions related to problems back home were among the many queries asked by teachers on the field trips and answered by their hosts. While discussing the earlier field trips among themselves the teachers were heard asking: “Why don’t our children express themselves as well and as freely as these?” “Why is the behavior of some of our children so different?” “It didn’t seem at all like Friday... or Monday.”

On returning from field trips they always discussed the working procedures observed and the apparent successes and failures manifested in the programs they had seen. They did not discuss either their own program or their own relationships on return. No recommendations of any kind were made for changes. However, in their minds and hearts some resolutions were undoubtedly made. Evidences of change began to appear in many rooms. Teachers volunteered suggestions for trial the next year. The suggestions were not based on observations from other systems but were new ideas born of problems encountered in their individual classrooms or schools.

There is something different about a classroom or a school where space, time and materials are used creatively. In the classroom all areas and all facilities are used by each child. There is learning in abundance and fun in learning. There is a feeling of ownership and of responsibility. There is a feeling of pride and of humility. There are opportunities for individual work and opportunities for cooperation. There are understanding, patience and sympathy. All these are wrapped into a series of experiences for the development of every boy and girl who lives there. There is not a single chair in the room to which Johnny must confine himself all day long because his group occupies a certain corner or a certain side of the room or a certain row of seats. Ray, Nita, Bob and Nell are not assigned seats in the back of the room because they are taller than all the other children.

There is neither a front nor a rear of the classroom that is used creatively. All areas are important. Certain sections or areas of the classroom may be designated as specific physical areas, according to
the work to be carried on and the materials to be located in each. No hallowed space is set aside for the teacher because as he works alternately as group leader and group member he, too, uses all spaces and all facilities. Of course, there should be a space in the room that is considered home for each individual, a place where he starts his day, stores his belongings, returns when necessary or convenient during the day and where he ends his day.

Sharing and cooperating, planning and evaluating should so highlight the days that there would be an absence of such cries as, "This is my chair!" "These are my crayons!" and the like. There would be such a general understanding and warmth of feeling that, as they work, children would naturally select the convenient chair or accept the vacant one, choose from the unemployed crayons or books and wait turns for those in use. Much studying of their own situations and planning by teachers, principals and others directly responsible for the curriculum must be done and some specific agreements reached for the security of everyone.

Space for Curriculum Content

As curriculum content is organized, teachers and children can help plan the best use of space by the class. A good discussion about some of the kinds of experiences to expect in specific curriculum areas, the size of the room and class, the existing equipment and materials and others that may be secured is an excellent beginning for an art lesson on suggested classroom arrangement. A discussion of the productions of the pupil-artists may result in the selection of a satisfactory arrangement.

About three years of experimentation and research were carried on in nine elementary schools in Charlotte before a currently acceptable plan of organization was found.

Several major problems were recognized: (a) how to use the curriculum to equip children with alternatives to unsocial behavior; (b) how to improve and speed up the mastery of skills; and (c) how to help the children make and complete plans and evaluate results.

A way of beginning had to be found. Teachers and principals of two new buildings accepted the challenge and others joined the project as interest mounted following the sharing of reports.

Initiating Area Work

When a teacher receives a group of children who have not yet participated in area work, he asks the children to sit where they wish. Friends usually decide to sit together. After a trial period the arrangement of furniture and materials is discussed in the light of class purposes. This first day must be successful for teacher and children. Many materials will need to be secured from the library, the homes of children and neighbors, from the woods and streams, from the merchants, the upholsterers, the lumber yards and mills, from anywhere usable and needed materials may be secured. The parents join in the search for materials because they have heard other parents tell how the growth of their children in so many ways is due to this manner of working. All available materials pertaining to the curriculum area are housed within the corresponding physical area to facilitate use and to conserve time. Since learning to share is one of the assets of area teaching, fewer materials of certain kinds are necessary in a classroom. For instance, no longer is it necessary for every child to have a box of crayons, a pair of scissors or one of everything.

Much discussion about how to live and
work in groups now takes place. The total class or a part of it, with the teacher's help, decides on a problem to be solved and certain features of the problem that may be undertaken by groups or individuals. Class members usually know that this work should and can be accomplished by them.

The teacher's plan indicates the areas in which each group will work and what each is expected to accomplish. The teacher must always know where each child belongs and what he plans to do. The teacher can be sure of this only when there is a written record. Although there is much small and large group work involved, a tremendous amount of the work is individual.

The children must have their plans because they must learn to depend upon themselves. They prepare record booklets and folders for their leaders, reporters, and for themselves. Storage places for these, and various kinds of record materials are selected or made—sometimes boxes or chart stands are prepared. In some instances parents who have space to spare at home will lend groups space for materials that must be stored for a while.

The first day for working in areas arrives. Everyone comes early because an unusual project is about to get under way. Plans are reviewed. Time is allowed for adjustment in the plans of those children who desire a change if possible. If physical adjustment cannot be made, some alternate agreement by pupil and teacher is reached. Sometimes space outside the classroom must be found. The
children can always tell where all of the unused spaces in the building are located. There are many spaces out-of-doors planned especially for extended classroom experiences. Democracy abounds in area work. The children learn democracy by living democratically.

The time for starting area work is known to all the children. The amount of time to be used is decided upon. The class is asked to move to its first area. Taking with them personal belongings, pupils move in various directions.

The Teaching Area

Into this area will go the children who need help with a specific skill (reading, writing, arithmetic, spelling, language, map study, or others). They might have been told by the teacher to come for the introduction of something new, for help on something that caused difficulty in other areas, or sometimes it might be a group that the teacher wants to work with for other reasons. Very often the children select the teaching area. It is desired that this group will remain small to encourage and facilitate individual participation and to enable the teacher to work with the children individually. Any group may be increased in size or the entire classroom or any portion of it may become the teaching area.

Creative Arts Area

Children go into this area for drawing, painting, story writing, writing of poetry, creative dancing, creating songs, crafts and industrial arts.
**Research and Listening Area**

In this area it is expected that children will learn to search for themselves and find information on many subjects, and many points of view from a variety of books, magazines, tape recordings, disc recordings, newspapers, children's writings, pictures, films, slides, and by listening to their classmates or anyone else who comes in to talk with a group in this area or with the class as a whole.

**Health and Science Area**

Discussions, oral and written reports, independent and group study, experiments, demonstrations and most of the work related to the curriculum are carried out in this area.

The teacher starts working with the children in the teaching area as soon as every child is settled. At intervals the children in the teaching area are left on their own while the teacher goes to the other areas to observe progress and give help. Back in the teaching area, she proceeds with the planned work. Everybody works hard until the timekeeper in each group quietly calls time. Children and teacher then take a look at what has been done, evaluate a little and decide upon some recommendations for the next day. A few minutes for cleaning up are included in the originally allotted time. The groups move on to their next selected areas.

Groups do not always travel clockwise. The amount of movement by individuals and groups depends upon their maturity levels and the previous planning. Sometimes a group or certain individuals may remain in one area for two periods. This depends on the judgment of the teacher with pupil judgment taken into account. The various needs and choices of group members necessitate a wide selection of areas.

Although evaluation and planning are going on all through the day, the last period of the day is left open for groups and individuals to check with the teacher on plans for the next day, prepare materials for the next day, such as mixing paints, getting equipment ready for an experiment, notifying the librarian about their needs and preparing reports.

**Two Teachers to a Classroom**

In several schools two teachers have worked cooperatively with an extra large class in one classroom with outstanding results in area work.

By working in areas, the children learn to value time. They know that time is limited and that they are the losers when it is wasted.

More work can be accomplished in areas than in some of the other ways of working and more materials in all areas are dealt with by each child. According to observations and reports, home and school relationships have improved.

When venturing out in a new direction it is helpful to have leaders in education come in and spend a while helping by observing, leading in the evaluation and offering advice from a rich background of experience. Alice Miel, professor of education, Teachers College, Columbia University, served as consultant to the Charlotte program for three years.