THE faculty of Winnetka's Skokie Junior High School has been engaged over a two-year period in the examination of what we call the "Learning Laboratory." Started in March 1962, a very limited pilot project has been carried on in an effort to clarify and systematize some of the propositions surrounding this notion.

We believe that self-instruction, self-motivation and independent inquiry are characteristics of education to be strongly supported and enhanced by teachers and the school organization. We believe that, typically, the preadolescent or early adolescent child is struggling to separate from adult authority, to rise above conventions and to flex his individuality and autonomy. The child is experiencing a period of healthy and normal rebellion. Traditionally, junior high schools have failed to exploit this burgeoning power in the child by containing him within classrooms, periods and prescribed curricula; and by surrounding him with many adults.

Our hypothesis suggests that the junior high child, given an opportunity for unstructured inquiry and the pursuit of intellectual ends important to himself will gain an added dimension of scholarly satisfaction. We believe that for a certain child, for certain periods of time, an intellectual task of his own making and of high order, pursued in the Learning Laboratory, will produce measurable gains in the child's view of himself as a purposeful student, and will carry over affirmatively into the more conventional classroom learnings of secondary school and college. We see the Learning Laboratory as a place for excursion and extension of the mind and spirit of the child, not normally attainable in the conventional classroom.

A Close Collaboration

Many new media of instruction are being produced with the intention of facilitating and expediting learning. These media are often complex, ill-suited to the conventional classroom, and forbidding to many teachers. We propose to pool such media, place them in close partnership with the conventional library, and create a setting for independent learning that will respond to the hypotheses here stated.

It is not intended that the children will be cast off without direction or guidance. Nor is it intended that their total learning will be derived from the Learning Laboratory. We see the child functioning adequately in the conventional classroom released for a time upon his own initiative, or that of his teacher, to pursue independent work in the Laboratory.
The "time" may be a period or two, or, conceivably, a week or more. Close collaboration between the teacher and the Director of the Learning Laboratory will be necessary to insure a fruitful and productive period of work. Much individualization of resources and materials will be necessary. The broad intellectual competence, teaching skill, creativeness and vision possessed by the Director of the Learning Laboratory will have a maximum bearing on the success of the program.

There are many uncertainties to be confronted in this innovation. Among these we note a few:

1. Is the Learning Laboratory only for the academically talented child? We believe not, but we must settle this.
2. Under what conditions of classroom performance will the child be released to the Learning Laboratory?
3. Who "accounts" for the child released from the science class for purposeful independent study, when the social studies teacher claims him for regular tasks in the conventional classroom?
4. What constitutes a culmination of a Learning Laboratory task? Must the child produce something tangible for parents and teachers? We hope not always, believing that good things will happen to the child that cannot be toted up and measured in pages of a paper or project. Yet this remains to be studied.
5. Can the Director of the Learning Laboratory, assisted by ancillary aides, respond wholly to the multiplicity of interests that will flow to his attention? Or will there be a need for several specialists? Will this become so uneconomic as to defy justification in the gains of children? We see the Director as the guide, stimulator, assembler of materials, inspiration of children and teachers, but
not as a shoulder-to-shoulder tutor. The child, we believe, will be much on his own; we would not attempt simply to duplicate the classroom where the teacher is close at hand. Yet this notion, too, must be tested.

These are a few of the many questions besetting us. We see at least three years, and very likely four years, as the time we will need to pursue these questions and prove whether or not we have a fair proposition for the improvement of junior high school teaching and learning.

We are now building space that will accommodate the function. This space, adjacent to and clearly connected with an expanded library will contain about 1,300 square feet for the Learning Laboratory proper, an office for the Director, a Materials Preparation Room, and an adjacent classroom. Much study has gone into the equipping of the space, and much remains to be done. Initially we see active use of programed materials, visual aids, tapes and recordings, individual science equipment such as microscopes with programed lessons for study of microscopic samples, language laboratory cubicles, and, of course, ready access to a richly stocked library with an alert staff. Undoubtedly there will be other devices of instruction specifically suited to individual learning that will need to be acquired.

Yet, truly, the Learning Laboratory is an idea, more than it is a space. It may quickly flow beyond the newly constructed walls if the notion proves worthy. We are prepared to give it a maximum effort. Starting in March 1962, and continuing to the present, we have utilized a small substandard room in the basement of Skokie Junior High School as a place to explore a "scale model" of the Learning Laboratory idea. We have designated a full-time classroom teacher to serve temporarily in the role of Acting Director, while the mechanics and materials of the new scheme were put to preliminary tests.

Initially, and to some degree at the present time, members of the faculty found the Learning Laboratory idea difficult to encompass, particularly when the conscientious teacher feels wholly responsible for the child's learnings in a given field. Gradually, as instances of successful experience in the pilot study became evident, teachers have grown more supportive. As in most educational innovation, two or three adventurous and secure individuals took the early tentative steps, with others following.

Typically, 40 or more children a week are engaged in one way or another in our scale model space. Some may be involved for only two or three periods—some for several days.

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remain under scrutiny. So far we have developed some tentative arrangements for the identification and guidance of children through the Learning Laboratory. Once these arrangements are refined and systematized, preserving high flexibility and opportunity for creative applications, we must set about the task of evaluation. It seems feasible to predict that within four years we should have some measurable outcomes, if only of an empirical character.

—SIDNEY P. MARLAND, JR., Superintendent of Schools, Winnetka, Illinois.

Editorial
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curriculum workers have a very important role to play. They have the major leadership responsibility in evaluating and selecting programed materials and teaching machines and in producing such materials and devices locally.

Other developments in instructional technology that here can only be mentioned are: quick and easy methods for producing transparencies for overhead projection; production of opaque and transparent photographic materials in black and white and in color by means of the Polaroid camera; 8mm sound motion picture film, cameras and lightweight cartridge-load projectors; and cross-media or systems-approach to teaching and learning, including the use of computers. These developments also raise for curriculum workers the familiar questions: What shall be presented by means of these materials and devices? How shall the content be organized? Toward what ends shall the content be used? How shall these devices and materials be employed?

Obviously, instructional technology bears directly on curriculum and on teaching and learning. These are matters for which curriculum workers have primary responsibility. Consequently, the challenge is clear. Curriculum workers must provide leadership and guidance in deciding whether to use television, language laboratories, programed materials, overhead projectors, 8mm films or any of the other newer media and devices. They must also advise and assist teachers in the use of these materials and equipment once they are adopted.

Leadership Is Needed

To meet this challenge, curriculum workers need to know the new media and instructional equipment. They need to be informed about the research that has been and is being done to discover the educational effectiveness of these materials and equipment and to determine how best they can be used. Most important, they need to have direct experience with the media and devices.

This is a big order. Even the specialists in the media field find it difficult to keep up with new developments. Nonetheless, much can be learned about instructional technology by reading the professional journals in the field, by attending meetings and visiting exhibits that deal with new media, by participating in workshops and in-service courses, by observing in schools that are using modern instructional technology, and by examining and using a variety of materials and equipment. Readers of this piece can obtain much valuable information and useful commentary about several aspects of the evolving instructional technology by turning to the other articles in this issue of Educational Leadership.

—PAUL W. F. WITT, Professor of Education, Teachers College, Columbia University, New York, New York.