ALTHOUGH it is possible that schools in 1985 will be used as instruments of thought control and social classification, the writer, nevertheless, is optimistic enough to believe there will continue to be a social commitment to freedom, creativity and equality of opportunity. With this basic assumption, an attempt is made in the following statement to project the changes that technological advances and social problems will produce.

Purposes and Program—1985

Planners of the education for adolescents hope that each pupil will: (a) develop a set of values that will guide his behavior; (b) acquire the skills necessary to participate effectively in the culture; (c) gain understanding of the social, economic, political and scientific heritage; and (d) become able to make a specialized contribution to the society.

The program of the school is designed to promote these goals and is divided into four phases: (a) analysis of experiences and values; (b) acquisition of fundamental skills; (c) exploration of the cultural heritage; and (d) specialization and creativity.

Analysis of Experiences and Values

In the school each pupil spends six hours a week in an Analysis Group. With ten other pupils of his own age and a skilled teacher-counselor he discusses any problem of ethics, social concern, out-of-school experience, or implication of knowledge encountered in another class he or any student brings to the group. No curriculum is established in advance. The exploration of questions, ideas or values advanced by group members constitutes the primary type of experience.

The purpose of the Analysis Group is to help each pupil discover meaning, to develop increased commitment to a set of values, to provide opportunity to examine the conflicts among the many sets of values and viewpoints held by members of the society.
The membership of an Analysis Group is carefully selected to provide persons of relatively equal intellectual ability but varied social and economic values. The group remains as a unit throughout its high school program. Changes are made only when deep emotional conflict develops between students or between a student and the teacher-counselor.

The teachers of Analysis Groups are emotionally mature people. They were selected early in their teacher education program because they displayed a high degree of empathy and were warm, outgoing personalities that other people liked. They were given special training in counseling, communication and value analysis. Each has been taught to see his role as helping others feel more secure, clarify their values, and communicate more effectively with their colleagues. If a teacher of an Analysis Group attempts to sell his viewpoint, he is considered unsuccessful and is replaced.

Each Analysis Group teacher meets three groups, or 33 students, during the week. His time beyond the 18 hours in the discussion groups is for individual counseling with the 33 pupils and their parents.

The Analysis Group is considered the basic element of the educational program. In the sixties it was recognized that unless citizens had values they accepted, understood and could apply, the social structure would begin to disintegrate unless authoritarian controls were applied. To counter the danger of collapse of a democratic way of life, the school was assigned the task of making as sure that each child develop a set of values as that he could read. The Analysis Group evolved as the best means of performing the values development function.

**Acquisition of Fundamental Skills**

Citizens in 1985 must have fundamental skills far superior to those necessary in the late fifties to be considered literate.

In the home and in the elementary school, children learn to read, spell and compute at their own rate of learning by the use of teaching machines. In the school for adolescents, mathematics, foreign languages and many scientific processes and formulas are taught by machines supervised by librarians and a staff of technicians.

It has been proven that the machines can teach basic skills as effectively and efficiently as a human. The work of Skinner and of persons working with foreign language laboratories in the late fifties paved the way for this development. All the activities needed for teaching all fundamental skills have been programed.

Each student planning a high school program is told the skills he must master. He works through the needed program as rapidly as he can. When he wants to work on a skill, he goes to the librarian, schedules a machine and a program and goes to work.

Certain skills are needed by all citizens, and each adolescent's program includes the requirement that these skills be acquired. Other skills are considered vocational in nature and are added to a student's program if he indicates he has college entrance or a specific vocation as a goal.

Some students complete their basic skills work early in their high school program. Others work on them until they leave the high school.

Two librarians, one to issue programs and the other to help on request, and a staff of mechanical technicians super-
vise the work of 200 students. Disorder is at a minimum because each person works on his own level and on his purposes. Moreover, each student works in his own soundproofed cubicle.

The teaching machines laboratories for the various subject matter areas, mathematics, languages, grammar, are an integral part of the Materials Center of the school.

**Exploration of the Cultural Heritage**

The explosion of available knowledge in the first three quarters of the twentieth century confronts educators with the need for selecting, synthesizing, interpreting and seeking better methods of transmitting it. The things that an effective citizen needs to know in 1985 are a multiple of the knowledge necessary in 1960. Textbooks with less than master teachers are not enough, and ways of bringing each student into a working relationship with the best teachers available have been sought. Basic knowledge from the essential fields is prepared in the most easily understood media and presented as dramatically and forcefully as possible. This knowledge from the humanities, the social sciences, and the physical and biological sciences is considered the Cultural Heritage.

Roughly a third of the program of each high school student is designed to help him acquire the basic knowledge of his culture. By exposure to the experiences, ideas, and discoveries of the past, it is hoped that the individual will become literate enough about the basic ideas of his culture to participate in discussions of them or to understand reference to them. It is further hoped that the experience in the Cultural Heritage portion of the program will develop a desire to further enhance the values on which the society is based.

Classes in the Cultural Heritage program are large. Sometimes as many as 500 or 1000 are in a single section.

Teaching is by television, films or a highly skilled lecturer. No provision is made for discussion because ideas that produce a response can be discussed in the Analysis Groups.

Only one teacher and an assistant are needed in each subject matter field in each school. The teacher lectures or presents the material by an appropriate medium. The assistant prepares quizzes and examinations and records the marks made on the machine scored tests.

The high pupil-teacher ratio in the Cultural Heritage area, 1 teacher for each 500 to 1500 students, makes possible the low ratio, 1 to 33, for Analysis Groups and highly individual instruction for the exceptional student.

Teachers for the Cultural Heritage program are selected early in their teacher education program. They speak well, like to be before an audience, have a sense for the dramatic and are attractive persons. In addition to intensive work in their field, they are given work in speech, dramatics, logic, and mass media.

**Specialization and Creativity**

The Analysis Groups, the Cultural Heritage Courses, and the Fundamental Skills work constitute the program required of all. But, in addition, each student is encouraged to develop a specialization. It is not required, but the opportunity is presented.

Shops, studios and working laboratories are available for specialized activities. All students who wish are encouraged to engage in some creative
activities since the Cultural Heritage phase of the program is essentially a passive reception.

Writing laboratories are staffed to help students who want to develop creative writing ability. School newspapers, magazines and telecasts are written in the laboratories.

Other students select work experience in various industries and businesses in the community. These students have decided they will not seek higher education and are using their specialized program to insure a smooth transition to regular employment.

Special opportunities are available for the persons who qualify in terms of ability and intensity of purpose.

Seminars in the various content fields, and some of an interdisciplinary nature, are available for those who can qualify. Students must have displayed unusual ability and show evidence of a desire for individual investigation in a field before they are permitted to enroll.

Seminars are limited to 15 students. They meet for two two-hour periods per week and the remainder of the time the students conduct independent research in the library or laboratories.

Small laboratories are kept open for full time use by the individual researchers from the seminars. In fact, students who are not expected to become scientists or technicians in an area do not use laboratory facilities. Laboratory experience was abandoned as a general education procedure in the mid-sixties.

In the specialized fields the pupil-teacher ratio is low, 1 to 40 or 50 pupils. Teachers give individualized supervision and plan with the Analysis Group teachers the experiences individuals should have.

No longer do the colleges blame the secondary schools for inadequate preparation. Graduation days have been eliminated. Students continue to work in the secondary school until they pass their college entrance examinations or move to a job. Most students enter the secondary school at 13, but some leave at 15 and others at 20. A student's decision to leave the program is conditioned by his completion of the Cultural Heritage experiences, his acquisition of fundamental skills, and his individual purposes.

The School Plant

The school plant has many different sized rooms. Analysis groups, specialized education classrooms, studios and laboratories are small. Cultural Heritage courses are held in large halls equipped for lectures and mass media programs. Libraries and studios and shops are large. Areas where individuals work with teaching machines to perfect basic skills are divided into small work cubicles. Buildings with uniform size classrooms are obsolete.

Basis of Support

The program described above is paid for from federal funds. It was recognized in the late sixties that, with a population as mobile as ours, neither local communities nor the national government could afford to allow the great differences in educational opportunity to continue. No community was immune to poor education in another and the national government was thus neglecting a large percentage of its human resources.

Evolution of the Program

The program was not achieved without some difficult struggles. Many voices (Continued on page 489)
control, but if learning in a democracy is to proceed most efficiently then this status power of the teacher must be operationally ameliorated for much of the school time. This is likely a safe assertion because a democracy would seem to need as citizens those who have healthy self concepts, healthy feelings about others, personal involvements in and commitment to that which needs to be done, personal involvement with things and places, as well as individual competence and initiative. It would also seem safe to assume that these goals cannot be as fully met under rigid authoritarian direction as under conditions where the learner has many opportunities for making choices and for becoming aware of the results of the choices which he has made.

In addition to many of the teaching functions already mentioned, a reduction in the amount of stereotyped support, of general support, of moralizing, of accusing, of admonishing, and of reprimanding, with a corresponding rise in the use of clear structure, standard set, and evaluating positively or negatively with discrimination, would ameliorate the status power of the teacher. The teacher in the schools of the future will know this and will perform accordingly.

In summary, the schools of the future will still have teachers. Television will be used to give information under proper conditions, but teaching will be seen as interaction—the interaction between teachers and learners. Teachers will be working (interacting) directly with pupils and the size of the groups will be determined by the needs for successful interaction. The teachers will be carefully enough trained that the countless educational decisions which are made as teachers interact with learners will be conscious professional decisions. Yes, teaching will be recognized as interaction, but the teacher's behavior in this interaction will be far more responsive and thus far more effective than is the typical teaching of today.


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arose in the late fifties and early sixties clamoring for a copying of a European educational system. Some wanted to use tests and allocate the pupil to a specialized curriculum as early as ten years of age and give him the required courses the experts deemed suitable for him. They proposed restricting the curriculum of the secondary school to the intellectual pursuit of information in certain areas of knowledge. Values and social development were to be left to the home and church.

However, increasing juvenile delinquency, more homes with both parents working, increasing mental and emotional disturbance could not be ignored. The secondary school program had to be made broad enough to deal with values, human relations, fundamental skills in communication, the cultural heritage, as well as work in a student's special field.

May 1960