

# IGE in Elementary & Middle Schools

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*IGE's role in individualizing instruction is described here. The essential components of IGE are individualized, as are its implementation and evaluative procedures.*

Creative efforts have been made during the past decades to change instructional practices so that they conform to the well established facts about the nature and extent of differences among students. As evaluated by a committee of the National Society for the Study of Education, three responses to the need for greater individualization of instruction have risen above faddism. They are Individually Guided Education (IGE), Adaptable Environments for Learning (AEL, an extension of the initial system referred to as Individually Prescribed Instruction), and Program for Learning in Accordance with Needs (PLAN).<sup>1</sup>

While the three approaches have similar goals, the main difference between IGE and the other two is that IGE is a total system of schooling having seven interrelated and clearly described components; it is a true alternative to age-graded schooling, departmentalized schooling, open education, and other forms of schooling. Far more fundamental changes in current schooling, teacher education, and relationships among educational agencies within a state are required by IGE than by either AEL or PLAN.

## IGE: An Alternative Form of Schooling

Frank Chase, a keen student of educational reform and renewal, has described IGE as follows:

IGE is described as a system, and it is a system of many interrelated components; but it is also a strategy, incorporating many tactics, for attaining educational objectives; and when fully implemented, it takes on an institutional character as a new kind of school. It offers distinctive patterns for the organization and management of instruction and learning environments; it fosters new sets of relationships to other education agencies and to the supporting community; it incorporates coordinated strategies for continuing evaluation, refinement, and renewal; and it stimulates staff development and curricular innovation. Moreover, IGE stands out as one of the more widely adopted and better implemented of the educational innovations which took shape in the sixties. The indications are that IGE may take its place among the more constructive of American contributions to the advancement of education.<sup>2</sup>

IGE draws upon many separate reform movements of this century. However, the first specific components of IGE as a system were started in 1965-66. By 1975-76, there were some

<sup>1</sup> For descriptions of IGE (by Herbert Klausmeier), AEL (by Robert Glaser and Jerome Rosner), and PLAN (by John Flanagan and others), see: Harriet Talmage, editor. *Systems of Individualized Education*. McCutchan Publishing Corporation, 1975.

<sup>2</sup> F. S. Chase. "IGE and Educational Reform." In: H. J. Klausmeier, R. A. Rossmiller, and M. Saily, editors. *Individually Guided Elementary Education: Concepts and Practices*. New York: Academic Press, Inc., 1977.



*Instructional programming for the individual student involves deliberately varying the amount of teacher direction and of individual, small group, and large group work to meet the needs of individual children.*

3,000 IGE elementary and middle schools in the United States.

IGE schools function within the established patterns of American education and are funded and supported by the district as are the other schools that do not change to IGE. Seven inter-related components form the system of IGE at the elementary and middle school levels. The same components serve as a framework for secondary IGE; however, the application of these components to the great variety of junior and senior high schools has not been conceptualized adequately at present.

### **Components of IGE**

The seven components of an IGE school are as follows: (a) the multiunit organizational-administrative arrangements, (b) a model of instructional programming for the individual student, (c) evaluation for educational decision making, (d) compatible curriculum materials, (e) a program of home-school-community relations, (f) facilitative environments, and (g) continuing research and development.

Each of the components and the total system have emerged through iterative cycles of problem analysis, cooperative group problem solving, development of solutions, testing, and revision. It has been my role, starting in 1965-66, to lead the development of IGE with staff members of the Wisconsin R&D Center, and persons in local school districts, state education agencies, and teacher education institutions.

Although all the components of IGE are essential for IGE to function properly as a system, instructional programming for the individual student is at the heart of the individualization process. And, instructional programming can be effective only as the multiunit organizational-administrative arrangements function effectively.

The multiunit organizational-administrative structure is designed to produce in a school building an environment that facilitates instructional programming for the individual student. The nongraded I&R Unit, shown in Figure 1, involves cooperative team teaching and multi-age grouping of students and replaces all forms of self-contained classroom teaching and also the departmentalized form of organization. An I&R Unit

includes a unit leader (who is also a teacher), the staff teachers, special teachers and other personnel in some schools, and 100 to 150 students.

The Instructional Improvement Committee (IIC), composed of the principal and the unit leaders, replaces the principal as the sole educational decision maker at the building level; the unit leaders share decision making with the principal.

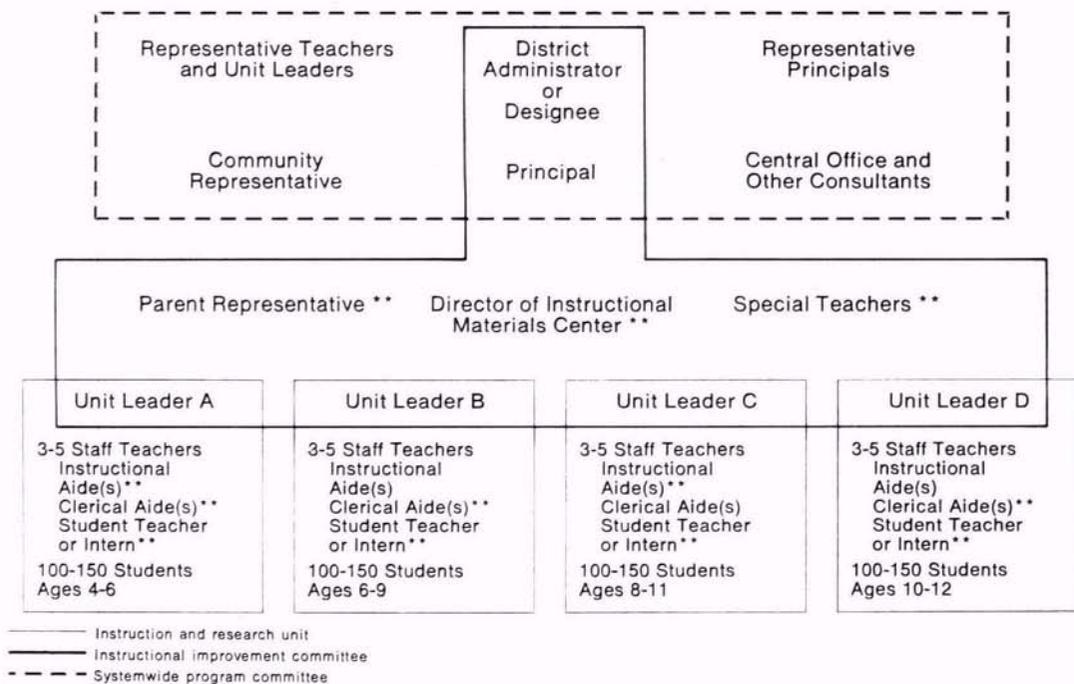
The Systemwide Program Committee (SPC) at the school district level includes district personnel, representative principals, unit leaders, and teachers. The three groups assume responsibility for planning, decision making, and evaluation at the three respective levels and also for communication within the school setting and between the school and the community.

The model of instructional programming was conceptualized to facilitate each student's development in the cognitive, psychomotor, and

affective domains. This model, shown in Figure 2, guides the Instructional Improvement Committee in formulating the educational objectives for the student population of the school building. The various I&R Unit staffs then assess the students, identify instructional objectives for each student, and plan and carry out appropriate instructional programs for the individual students.

Some instructional objectives, particularly in the basic skill areas, should be attained to a mastery criterion by every student before completing elementary school. Other less precisely specified objectives in all curricular areas—but particularly objectives in the creative arts, humanities, social education, and the affective domain—call for student achievement, not to an identical mastery criterion, but to a level judged by teachers to be appropriate for the particular individual student.

Figure 1. Multiunit Organization of an IGE School of 400-600 Students \*



\* Adapted from H. J. Klausmeier, R. G. Morrow, and J. E. Walter. *Individually Guided Education in the Multiunit School*. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1968.

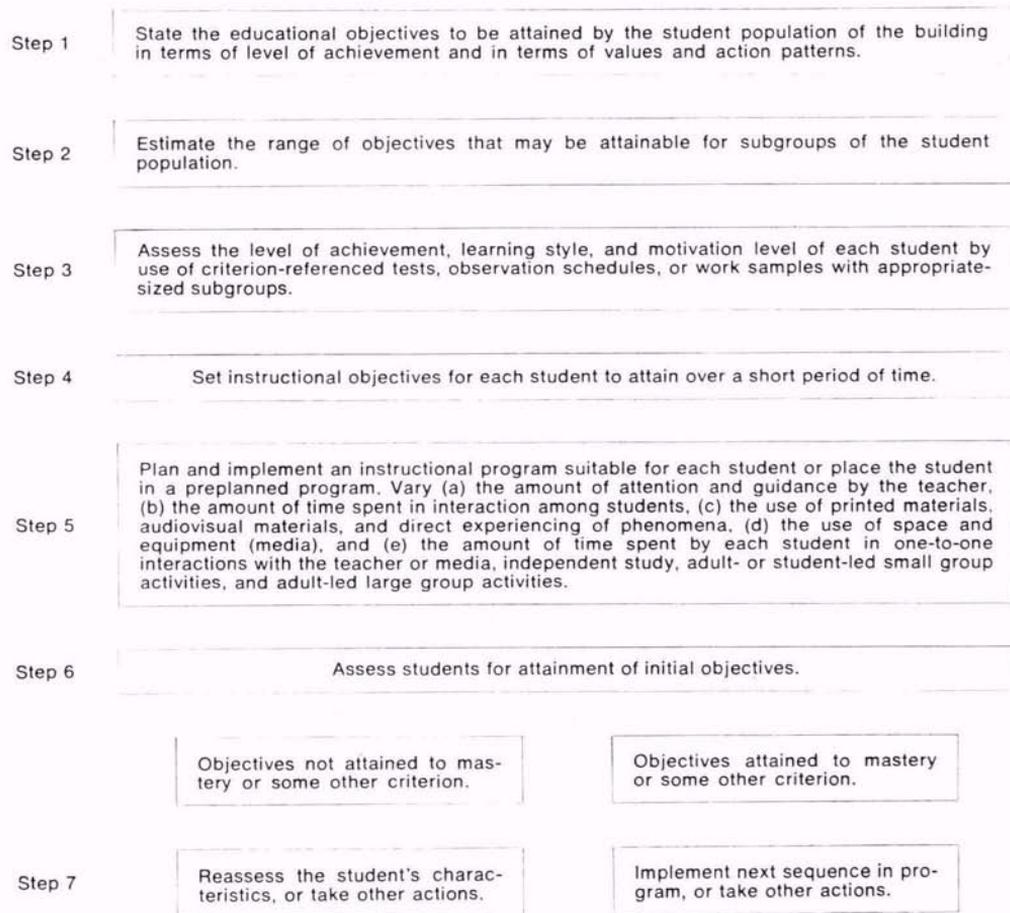
\*\* Inclusion of these persons will vary according to particular school settings.

Instructional programming for the individual student assumes active learning, continuous pupil progress, and personalized instruction. Mental activity always is involved in learning. Furthermore, sensing, manipulating, and direct participation in learning activities are especially important for children who do not have the basic skills and fundamental concepts and principles to learn vicariously. Continuous pupil progress requires

activity on the part of the learner, guided by wise instruction from teachers that is adapted to the rate of learning and other characteristics of the individual.

Materials, activities, time, and teacher direction are purposefully varied to meet the needs of individual students. Personalized instruction transcends merely adapting instruction to the child's rate and style of learning and assumes

Figure 2. Instructional Programming Model in IGE \*



(Feedback)

\* Adapted from H. J. Klausmeier, M. R. Quilling, J. S. Sorenson, R. S. Way, and G. R. Glasrud. *Individually Guided Education in the Multiunit School: Guidelines for Implementation*. Madison: Wisconsin Research and Development Center for Cognitive Learning, 1971. p. 19.

that, through personal attention from a team of teachers, each student will be aided in developing a positive regard for self along with self-control, personal responsibility, and social responsibility.

### Evaluation of IGE

The evaluation of IGE has taken many forms, as human and monetary resources have been available for this purpose, both within the Wisconsin R&D Center for Cognitive Learning and in local school districts. A large number of Title III evaluations have been conducted and also a substantial amount of research has been carried out by masters and doctoral candidates.

Lipham recently summarized 16 studies, mostly doctoral dissertations, dealing with the organizational-administrative arrangements of IGE and the roles and relationships of principals, unit leaders (team leaders), and teachers:

These studies of IGE schools among other things have shown the multiunit organizational-administrative structure to be effective in changing the school from a static, mechanistic institution to an organic, dynamic organization. IGE schools, as compared with non-IGE schools, are significantly higher in: open communication networks and essential interdependence relationships; organizational adaptiveness and flexibility; teacher motivation and morale; and school learning climate. Moreover, in IGE schools, teachers feel that they are involved in making potent instructional decisions; that their values and viewpoints are represented appropriately; that they experience job satisfaction; and that their principals provide both instrumental and supportive leadership.<sup>3</sup>

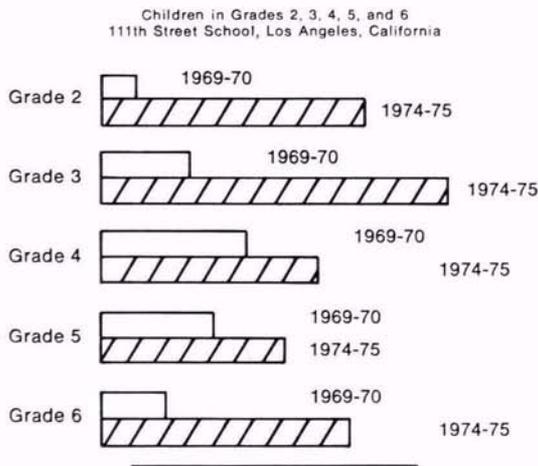
As illustrated in three evaluation reports summarized by Klausmeier,<sup>4</sup> educational achievements of students rise when the multiunit organizational-administrative arrangements and instructional programming for the individual student are implemented properly.

The achievements of primary-age children after three years in IGE schools of Janesville, Wisconsin, were compared with the achievements of children in non-IGE schools of the same city. In reading, the percentile rank for the students in their third year of IGE schooling was 59, in the control schools, 48; in mathematics the percentile ranks were 46 for the IGE schools and 36 for the non-IGE schools; in spelling the ranks were 48 and 42, again favoring the IGE schools.

In Windsor, Connecticut, eight-year-old stu-

dents in their third year in IGE schools were given a reading achievement test and an aptitude test. The aptitude test was used to derive an expected reading score for each child, and these expected reading scores were compared with the actual score. The results were that 42 percent of the students achieved above expectancy, about 50 percent at expectancy, and only 8 percent below expectancy.

Figure 3. Change in Percentile Scores



The 111th Street Elementary School is in the Watts area of Los Angeles, California, and through 1975-76 enrolled black students almost exclusively. A systematic attempt at individualizing instruction in reading began in 1970-71; in 1971-72, IGE was started and both instructional programming for the individual student in reading and the organizational-administrative arrangements were implemented. Remarkable gains in achievement, as determined from study of annual administrations of educational achievement tests, were made as shown graphically in Figure 3. There is high turnover of students in this school, 50 percent or more each school year, and the

<sup>3</sup> J. M. Lipham. "The Leadership Role of the IGE Principal: Implications for Professional Programs for Preparing Principals." *Journal of Teacher Education* 27(3); Fall 1976.

<sup>4</sup> H. J. Klausmeier. "Continuity in Learning: Long Range Effects." A presentation at the Chief State School Officers' Institute, San Diego, California, July 30, 1976.



*Photos clockwise from top: Guidance by wise teachers is the key to excellence in education; Adapting instruction to the needs of the individual child is the focus of IGE; and, Decision making is shared by the principal and teachers in meetings of the Instructional Improvement Committee.*



older children appear not to have responded to the changed emphases in instruction as well as the younger children.

Not all IGE schools are getting these excellent results; and particularly some of those which do not receive continuing technical support from the Wisconsin R&D Center or from persons in state networks who use the implementation strategies of the Wisconsin R&D Center. However, sufficient numbers of IGE schools in different school districts of many states are getting good results, so we can be sure that—with proper assistance while changing to IGE and with adequate staff development activities thereafter—educational reform and renewal can become a reality.

### Implementation of IGE

Getting IGE concepts and principles to operate in the daily lives of teachers and students, with results such as those cited here, is in itself a creative, time-consuming activity. Such activity eventually must involve every teacher and the principal of the IGE school, persons in the school district office, parents and community persons, and others. To guide the processes by which local school personnel are able to implement IGE, a five-phase implementation strategy was conceptualized and refined, starting in 1971 when the first federal monies became available to the Wisconsin R&D Center for implementation of the multiunit organizational-administrative arrangements of IGE and instructional programming for the individual student in reading.

The five phases in implementation of IGE are called awareness, commitment, changeover, refinement, and renewal. The strategy of the Wisconsin R&D Center and the IGE Teacher Education Project at the University of Wisconsin is to work with the leadership in the various states to enable them to implement IGE. Many different persons in the various states have received leadership education from the Wisconsin R&D Center to carry out these phases of implementation with school personnel. Revised print and visual materials were prepared from 1973 through 1976 by the R&D Center to strengthen the implementation process.

During the period 1972-76, nine sets of

multimedia materials were developed under my direction with funding from The Sears-Roebuck Foundation for use in credit courses and in non-credit staff development programs for preparing teachers, school administrators, and other educational personnel to serve in IGE schools. Each set of materials includes a textbook, usually a film and two or three filmstrips, and a guide.<sup>5</sup> Thus, for the first time in the development and refinement of IGE, essential instructional materials are available to persons for their on-campus programs and to people in the field for their staff development efforts.

### Future of IGE

IGE will probably expand rapidly throughout this decade and the decades to come. The rate at which it does depends primarily upon the willingness and ability of persons in school district offices and in teacher education institutions to assert leadership in educational reform and renewal. Partly because of lack of availability of materials, many teacher educators and persons in district offices were proceeding in 1976-77 as if IGE did not exist in practice or in theory.

The time appears propitious for school district personnel to join interested teacher educators and persons in state education agencies in the reform and renewal of American education. If American education is to be the constructive force in American society that parents, students, and others desire, we will work with school staffs to identify and solve instructional problems rather than to ignore the problems or treat them as topics for debate and discussion. 

<sup>5</sup> These materials are sold by Addison-Wesley Publishing Company, Reading, Mass.; the royalties from the sale of the materials are returned to the IGE Teacher Education Project.



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