R E P O R T R E S U M E S

ED 012 513 EA 000 738

AN ORIENTATION AND STRATEGY FOR WORKING ON PROBLEMS OF CHANGE IN SCHOOL SYSTEMS.

BY- JUNG, CHARLES C. AND OTHERS
NATIONAL TRAINING LABS., WASHINGTON, D.C.

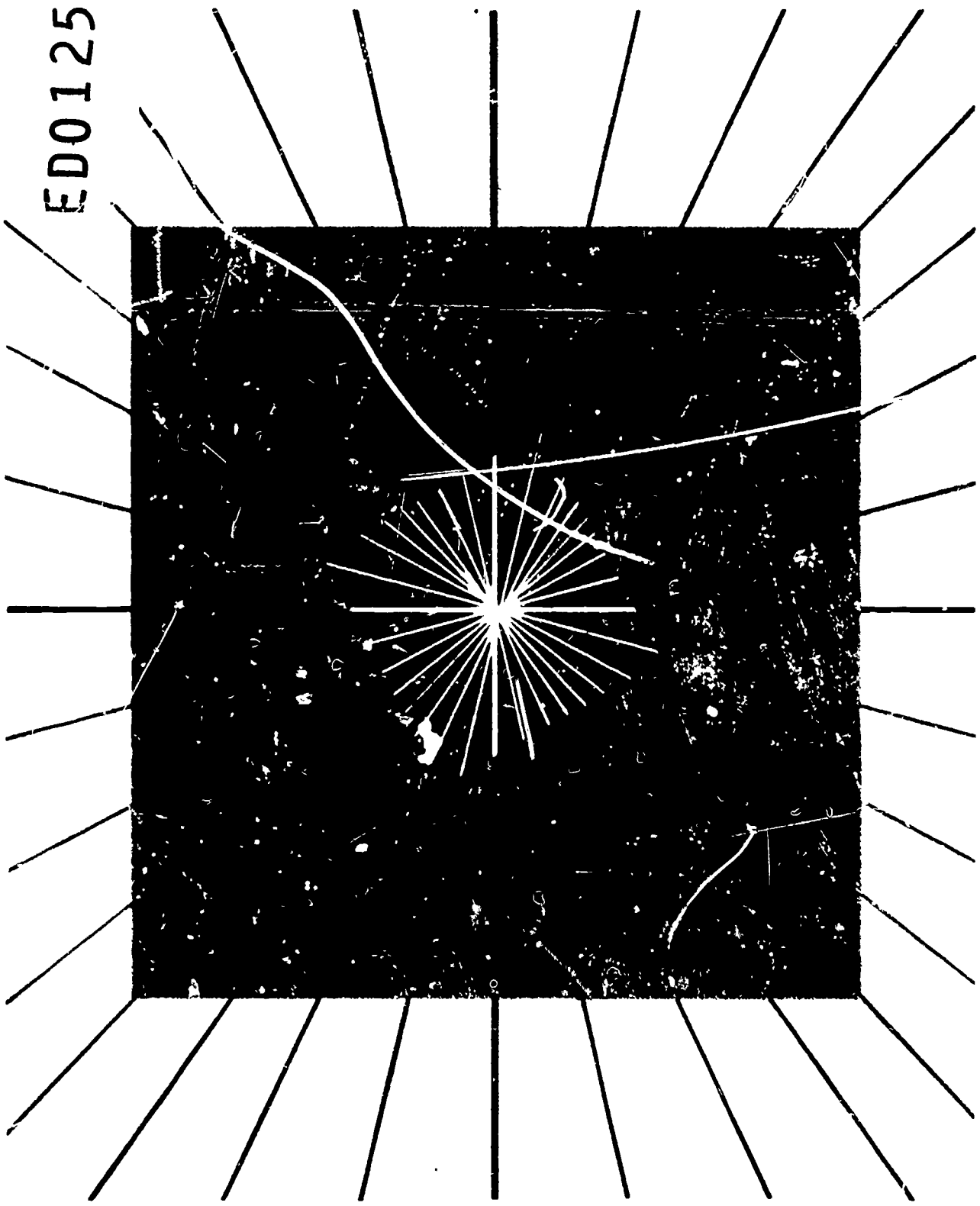
PUB DATE 67

EDRS PRICE MF-$0.25 HC-$0.92 23P.

DESCRIPTORS- *SCHOOL SYSTEMS, *EDUCATIONAL CHANGE, *EDUCATIONAL PLANNING, PROGRAM DESCRIPTIONS, *LEARNING EXPERIENCE, *SCHOOL ORGANIZATION, COOPERATIVE PROGRAMS, MODELS, COOPERATIVE PROJECT FOR EDUCATIONAL DEVELOPMENT, COPED, DISTRICT OF COLUMBIA, MICHIGAN

A PLANNED APPROACH TO EDUCATIONAL CHANGE FOCUSES UPON THE INTERNAL FUNCTIONING OF THE SCHOOL SYSTEM. RESEARCH GENERALIZATIONS INDICATING CONDITIONS WHICH INFLUENCE LEARNING ARE CITED AS A BASIS FOR A CONCEPTUAL MODEL. FROM THIS MODEL, SOME ORGANIZATIONAL FUNCTIONS WHICH NEED TO BE DEVELOPED WITHIN THE SCHOOL SYSTEM ARE DERIVED. FIVE LEVELS OF HUMAN PHENOMENA ARE CITED THAT CONDITION THE PROCESS OF RESOURCE UTILIZATION IN FULFILLING THE LEARNING EXPERIENCE OF THE CHILD--THE PUPIL AS SELF, THE CLASSROOM PEER GROUP, DIRECT WORKERS WHO CREATE LEARNING EXPERIENCES (TEACHERS), THOSE WHO INFLUENCE THE DIRECT WORKERS (PRINCIPALS), AND INFLUENCERS OF THE SCHOOL SYSTEM AS AN ORGANIZATION. IF THESE CONDITIONS ARE TO BE MAXIMIZED, A CLEAR CONCEPTUAL MODEL OF THE LEARNING PROCESS IS ESSENTIAL. ELEMENTS OF SUCH A MODEL WOULD INCLUDE (1) LEARNING THROUGH INQUIRY, (2) INDIVIDUALIZATION OF LEARNING, (3) DEVELOPMENT OF PUPIL PURPOSE AND SELF-CONCEPT, (4) PUPIL INVOLVEMENT IN CURRICULUM PLANNING, (5) USE OF A WIDE VARIETY OF RESOURCES, AND (6) CROSS-ABILITY AND CROSS-AGE HELPING. TO INITIATE SUCH CONCEPTS, THE MICHIGAN REGION COOPERATIVE PROJECT FOR EDUCATIONAL DEVELOPMENT (COPED) STRATEGY FOR PLANNED CHANGE INVOLVES (1) ORGANIZATION OF MATERIALS CONCEPTUALIZING PLANNED CHANGE IN A FORM APPROPRIATE FOR SHARING WITH SCHOOL SYSTEM REPRESENTATIVES, (2) INTERUNIVERSITY COLLABORATION, AND (3) UNIVERSITY TEAM RELATIONSHIPS WITH SELECTED SCHOOL SYSTEMS IN ITS REGION. TWENTY-FIVE REPRESENTATIVES OF SYSTEMS IN THE MICHIGAN REGION WERE INVITED TO A CONFERENCE EXPLAINING THE PURPOSES AND PROCEDURES OF COPED. STEPS WERE OUTLINED FOR BECOMING AN ACTION-RESEARCH COLLABORATION SYSTEM AND FOR IDENTIFYING CHANGE EFFORTS AND MEETING THE NEEDS OF DIFFERENT SYSTEMS. THE PROGRAM SHOULD ACHIEVE (1) INSTITUTIONALIZATION OF THE CHANGE PROCEDURES, (2) SYSTEM ADOPTION OF DESIRABLE CHANGE EFFORTS, AND (3) DOCUMENTATION AND EVALUATION OF THE PROCESS TO PERMIT DISSEMINATION OF THIS CHANGE MODEL TO OTHER SYSTEMS. THIS ARTICLE WAS PUBLISHED IN "CHANGE IN SCHOOL SYSTEMS," AVAILABLE FROM THE NATIONAL TRAINING LABORATORIES, NATIONAL EDUCATION ASSOCIATION, 1201 16TH STREET, N.W., WASHINGTON, D.C. 20036, FOR $2.50 (GD)

CHANGE IN SCHOOL SYSTEMS



COOPERATIVE PROJECT FOR EDUCATIONAL DEVELOPMENT

The working papers presented here were prepared pursuant to a contract with the United States Department of Health, Education, and Welfare, Office of Education, under the provisions of Public Law 83-531 Cooperative Research.

Single copy, $2.50. Discounts on quantity orders: 2-9 copies, 10 percent; 10 or more copies, 20 percent. Orders accompanied by payment will be sent postpaid. Shipping and handling charges will be added to billed orders. Order from National Training Laboratories, National Education Association, 1201 Sixteenth Street, N.W., Washington, D.C. 20036.

Library of Congress Catalog Number:
67-20419

First Printing, 1967

INTRODUCTORY NOTE— WHAT IS COPED?

Change in School Systems is a companion volume to *Concepts for Social Change*. The working papers presented in *Concepts for Social Change* develop the core ideas about planned change that give direction to the Cooperative Project for Educational Development (COPED). The papers in *Change in School Systems* focus attention on the special properties and processes of the schools and on strategies for change designed to test and develop the core ideas. Although COPED is concerned with improving education, the ideas in both sets of papers are relevant to change in other social contexts and, indeed, were in many instances derived from work in other fields.

COPED is a number of things. It is a three-year project, funded by the U. S. Office of Education, for "the exploratory development of models of planned change in education" in about 25 school systems located in the metropolitan areas of New York, Boston, Chicago, and Detroit-Ann Arbor (with affiliates separately funded in Madison). It is an emerging inter-university facility committed to joint inquiry, to collaborative action, and to interdependence among universities and school systems as a means to improving education. COPED is thus a linker, joining behavioral scientists and school system "change-agent teams" within and across regional centers. With coordination by the National Training Laboratories of the NEA, COPED links staff teams from Teachers College, Yeshiva University, and Newark State College; from Boston University and Lesley College; from the University of Michigan; from the University of Chicago; and from the University of Wisconsin.

To a degree not fully anticipated, COPED has also become a leadership development facility. Looking at the young behavioral scientists who in a few months have achieved full colleagueship at each center, we were reminded at a recent all-staff COPED seminar that "a chicken is simply an egg's way of making another egg." COPED has been an effective producer and assimilator of competent staff members. It has done so by providing a continuing seminar anchored in the realities and urgencies of working with school systems. Through personal interactions among people with a wide range of experience and knowledge, the seminars and regional staff sessions have provided learningful confrontations around ideological, conceptual, methodological, and value issues.

COPED's effectiveness in the area of professional development was greatly enhanced in 1966-67 when grants from the U.S. Office of Education and the Fund for the Advancement of Education of the Ford Foundation enabled NTL and COPED to initiate in-service training programs both for university-based interns and for school system- and education association-based training consultants.

COPED is also a forum—a continuing seminar—for conceptualizing about, studying, and developing models for bringing about improvement in education. The titles of the first papers prepared for discussion at COPED seminars, the working papers presented in *Concepts for Social Change,* reflect the themes and concerns of COPED. Buchanan, in "The Concept of Organization Development, or Self-Renewal, as a Form of Planned Change," links COPED concerns to relevant issues in settings other than education. Watson's "Resistance to Change" specifies factors at the individual personality and social-system levels which make for resistance. In "Concepts for Collaborative Action-Inquiry" Thelen distinguishes between "forced change" and "genuine change" where change in overt behavior is rationalized in internal changes of concepts, perceptions, and attitudes. Lippitt's "The Use of Social Research To Improve Social Practice" describes patterns of using scientific resources in coping with persistent social problems. Havelock and Benne develop a conceptual framework in "An Exploratory Study of Knowledge Utilization." Klein's paper on "Some Notes on the Dynamics of Resistance to Change: The Defender Role" calls attention to the positive contribution that resistance may make in change efforts. The concluding paper in that volume, "Self-Renewal in School Systems: A Strategy for Planned Change" by Miles and Lake, illustrates application of the various concepts in the development of strategies for change in education. The papers in the present volume continue the discussion but focus more specifically on the schools and on strategies for action.

Finally, COPED is an organizational experiment testing the feasibility of creating and sustaining an inter-university facility for collaborative work with schools. The concept of inter-university collaboration has been put to rigorous test. There are clearly costs to be paid in time, in communications efforts, in energy, and in threatened autonomy, conflicting loyalties, and potentially "watered down" compromise. Thus far there is the conviction that the benefits outweigh the costs. Incentives to collaboration have included access to a wider range of ideas and experience and to joint resources for staff development and for work on such specific tasks as developing research instruments. Long-range or anticipated values include richer interpretation of results because more school systems can be included, a wider range of strategies can be studied, and a greater range of orientations can be explored. Conceptual work is richer and

more challenging than it would be within individual regions. Assumptions and issues are more sharply defined through inter-regional reaction and interaction. At the same time inter-regional commitments and responsibilities have supported continuous task accomplishment which might have been postponed if the region alone were involved.

A variety of means have been used in fostering inter-regional collaboration. A representative Executive Committee was created at the first all-staff seminar. It meets approximately every other month and holds more frequent one-hour telephone conferences. (The conference call is beginning to be used by other COPED committees and task forces and also to link participating school systems and university staff members within a region.) The all-staff seminars every three or four months have been the major means for identifying and working through issues and giving COPED an identity. The joint development of the in-service training program and continuing utilization of the interns and the school system training consultants is another major source of organizational strength.

COPED goals are emergent, with testing and reformulations made through the seminars, task forces, and regional sessions. The goals have been stated broadly as:

To increase knowledge about how change takes place in schools.

To develop, assess, and draw generalizations regarding the effectiveness of specific strategies of planned change.

To disseminate, in ways that they are likely to be utilized, findings and materials generated through COPED.

To help about 25 school systems become self-renewing (innovative, competent in the management of innovations, skillful in problem solving).

To influence the universities as sources of help to school systems.

COPED will be asking:

What actual changes occur in COPED-linked school systems?
What are the causes for these changes?

At this writing—when pre-involvement measures are being taken and relationships established between university and school systems—no one is under any illusions that the task is simple. The reality, as Matthew Miles, Measurement Committee chairman, has stressed, is that some 25 school systems are being entered by COPED change agents with varying entry strategies and with a wide variety of subsequent change approaches carried out in different operating centers. To assess change carefully and

explain it plausibly represents a very substantial challenge. We know that the challenge has to be accepted if we are to emerge with findings that relate significantly to pressing educational problems and not simply with 25 "interesting" development projects.

A major commitment through a number of months has therefore been to the development of a "core package" of assessment instruments. By its reality and its urgency, this effort has helped bring COPED into being as an organization. It has also demonstrated one of the important rewards in attempting to work in an inter-university staff rather than independently. The development of the core package has utilized the variety of special interests and competencies represented at the various centers.

As issues and problems, as well as potential benefits, have become clearer, stronger commitment has developed to cross-center designing and the ultimate discipline this involves. The earlier Measurement and Continuous Assessment Committees have been merged into a representative Research Council and given responsibility for improving the core package; for helping the regional groups make their hypotheses more explicit and classifying the districts they are working in more rigorously; and for formulating, "working," and bringing important issues to the total staff. For example, the Council has been helpful in defining the relative demands of service to client-collaborator and of research. To paraphrase William Schutz, research coordinator for COPED, we need to be rigorous and experimental in formulating hypotheses, testing them, and evaluating results. But if we are to avoid sterile results—much ado about little—this phase of the scientific enterprise needs to be preceded by a period of discovery. The researcher entering the system needs to be open, creative, sensitive to the situation, imaginative, free to *discover* what the problems really are and what is happening.

COPED's potential importance lies in what can be learned not only about change and improved problem-solving skill and self-renewal in schools but also in what can be learned about interdependent approaches to educational problems. While it is too early to predict the ultimate contribution of COPED, experience thus far suggests that inter-university facilities can be created and sustained and that collaboration can be achieved between university and school to the advantage of each. The readiness of school systems to enter into COPED—though this means commitments of time, energy, and funds—is one of the promising factors.

Without naming the entire staff and each of the committees, it would not be possible to acknowledge the contributions that have brought COPED into being. NTL's Core Committee on Education should be

listed as the initiators—Ronald Lippitt, chairman, and Paul Buchanan, David Jenkins, Matthew B. Miles, Don Orton, Herbert Thelen, and Goodwin Watson. The COPED Executive Committee should also be named: Charles Jung, Fred Lighthall, Dale Lake, Elmer VanEgmond, Richard Hammes, Robert A. Luke, Jr., Miriam Ritvo, Loren Downey, Donald Barr, Audrey Borth, and Robert Fox. There should also be acknowledgment of the roles of William Schutz as research coordinator, Goodwin Watson as publications chairman and COPED editor-in-chief, and finally, Stanley Jacobson, who has made preparing these papers for publication his first project as newly appointed publications director for NTL.

DOROTHY MIAL
Program Coordinator for COPED

AN ORIENTATION AND STRATEGY FOR WORKING ON PROBLEMS OF CHANGE IN SCHOOL SYSTEMS

CHARLES C. JUNG,
ROBERT FOX, and
RONALD LIPPITT
Center for Research on the Utilization of Scientific Knowledge
Institute for Social Research
The University of Michigan
Ann Arbor, Michigan

The increasing rate of change in society is contributing to a wide range of social problems which impinge on the educational system. As problems increase, social science knowledge is also expanding at an increasing rate, but there is a great lag in the application of this knowledge in attempts to deal with social issues in the schools. Whereas the lag in utilization of scientific knowledge in fields such as agriculture or aeronautics averages a few years, in the field of education it appears to be a matter of decades.

This paper presents an approach to dealing with educational change in a planful manner, the focus of change being the internal functioning of the school system. The paper offers a conceptualization of the primary goal and the operational structure of the school system and cites, as a basis for a model of good learning process for children, research generalizations indicating some of the conditions which influence learning. It then attempts to derive from this model some organizational functions which need to be developed within the school system. Identification of organizational functions gives rise to questions which need to be explored —questions concerning the roles and the coordination of roles that are necessary to promote those functions. Finally, implications from these considerations are developed into a conceptualization of a strategy for planned change in school systems.

THE PRIMARY GOAL OF THE SCHOOL SYSTEM AND THE NATURE OF LEARNING

The most appropriate basic concern of formal education is conceived here as being the learning experience of the pupil. The primary goal of the school system is seen as creating experiences which maximize learning opportunity for all the pupils. This goal is seen as complementary to, but distinguishable from, the instrumental goals of creating a smoothly functioning organization and of presenting up-to-date content by the most recently developed means.

Learning is primarily a matter of developing the child's total resources for understanding and dealing creatively with his life and the environment within which he lives. Learning deals with analysis as well as memory, with systems as well as isolated units, with behavior as well as thought processes. Divergent as well as convergent thinking is appropriate. Emotions are important along with reason. Clarification of values is as much a part of learning as is the discovery of facts. A school system committed to this broad concept of learning will organize itself for the task much differently than one with more narrow objectives.

In defining the primary goal as the creation of experiences which maximize learning opportunity, it is our assumption that the teacher should be basically concerned with second order, rather than first order, learning: that is, she should be primarily concerned with influencing the conditions which affect the child's *desire and ability to learn*. Organizing and presenting content is only one of a number of such conditions, and a smoothly functioning organization is another. Administrators and policy makers of the school system should not value as smoothly functioning organization in and of itself. Nor should they value their system simply on the grounds that their curriculum materials and methods of presentation are new. Their basic criterion for success of the system should be the extent to which the functioning of the organization facilitates the teachers' efforts to promote second order learning.

THE STRUCTURE OF THE SCHOOL SYSTEM

The structure of the school system includes five levels of human phenomena that condition how effectively human and material resources are utilized to create learning experiences for children. One level is that of *the pupil as a self,* an individual psychological and biological unit in the learning experience. A second is *the classroom peer group* as a subculture of child clients. A third is the level of others, termed *direct workers* here, who interact with pupils in creating learning experiences. This group could include persons such as teachers, parents, or peers.

Those who directly facilitate or inhibit the efforts of the direct workers constitute a fourth level. This group would include persons such as principals, curriculum specialists, and other teachers. A fifth level is that of *persons who influence the nature of the school system as an organization.* This category would include central administrators such as the superintendent, or policy makers such as members of the board of education.

At each of these levels there are conceived to be conditions which can support efforts that maximize the effectiveness of learning experiences created for the pupils. In the next section, some illustrative questions pointing toward identification of these conditions are responded to in light of some recent findings from research.

CONDITIONS WHICH INFLUENCE THE LEARNING EXPERIENCE

At the Level of the Pupil as a Self in the Learning Experience

Three types of motivation seem to be important. One is motivation to please others (Jung, 1964). Second is motivation to learn content, or "first order" learning motivation. Third is motivation to learn (or to be a learner), termed "second order" learning motivation (Bateson, 1942).

Does it matter if the child feels his teacher likes him? Fox, Lippitt, and Schmuck (1964) find that "isolation from the teacher is greater when a pupil perceives himself as being disliked by his teacher than when he thinks he is liked by the teacher."

Does it matter if the pupil agrees with the teacher about classroom behavior? Schmuck and Van Egmond (1965) find: "A lack of congruence between the way a pupil feels about classroom behaviors and how he thinks the teacher feels is accompanied by a low level of academic performance."

Does a pupil's perception of his relationships with peers in the classroom matter? Fox, Lippitt, and Schmuck (1964) report the following findings: "Pupils who perceive themselves as holding low liking status (among peers) are lower utilizers of their abilities than pupils with higher perceived status. . . . Perceived liking status in the peer group is related positively and significantly to both attitude toward self and attitude toward school. . . . Pupils who have positive attitudes towards their class are higher utilizers of their intelligence than those who are less attracted to the class."

Are pupil perceptions of parental attitudes towards school important? Fox, Lippitt, and Schmuck (1964) find: "Indices for parental support of school, self-esteem, and attitudes towards school show that pupils who view their parents as supporting school have higher self-esteem and more

positive attitudes toward school than pupils who view less parental support of school."

Do all the various important reference persons in a child's life influence his school behavior? Jung (1964) reports that the perceived "messages" from others about how to behave at school combine to relate significantly to observations of the socio-emotionally handicapped child's positiveness in relating with teachers and peers in the classroom.

At the Level of Classroom Peer-Group Functioning

Do actual relationships between children in the classroom influence learning? Fox, Lippitt, and Schmuck (1964) find: "Classroom peer groups distinguished by more liking diffuseness exhibit more positive group effect than groups with more centrality. . . . Pupils with actual low liking status are lower utilizers of their abilities than pupils with higher actual liking status. . . . Associations exist between actual liking status and one's utilization of abilities, only for pupils with high potency of involvement in the peer group. . . . The attitude toward self of pupils with high potency of involvement in the peer group is more positive as peer group structure increases in diffuseness."

Do peer groups in the classroom establish norms which influence learning? One such norm, termed "pluralistic ignorance," is reported by Lippitt (1962) as follows: "We find, for example, in an average elementary school class, that the majority of the pupils perceive that most of the other pupils are against too active cooperation with the teacher, are against being 'eager beavers' about study and learning. Nevertheless, the majority of the group, in confidence, will indicate a great desire to be more active, to become more involved. Yet there is collusion to maintain mutual ignorance."

At the Level of Direct Workers Who Create Learning Experiences

Does teacher behavior directly influence the pupil's learning experience? Fox, Lippitt, and Schmuck (1964) report the following findings: "The more a teacher likes a particular pupil, the less isolated he is from the teacher. . . . A high level of isolation from the teacher is accompanied by a high level of dissatisfaction with the teacher. . . . A pupil's dissatisfaction with his teacher is accompanied by dissatisfaction for himself (low self-esteem). . . . Pupils who are isolated from the teacher have more negative attitudes toward school than those who are not isolated from the teacher. . . . Satisfaction with the teacher is significantly related to the utilization of intelligence for girls at every social status level. . . . For both sexes combined, satisfaction with the teacher and

utilization are associated when the effects of social class, parental support, and peer status are held constant."

Schmuck and Van Egmond (1965) find that "the teacher, as a social-emotional leader, had an effect on the academic performances of both boys and girls which was independent to a significant degree from the effects of parents and peers." They also find that "pupils with more compatible relations with teachers perform at a higher level academically than those with less compatible relations."

How directive should the teacher be in creating learning experiences for children? Flanders (1960) conducted a series of studies indicating that the teacher's methods influence both the pupils' orientation toward learning and their achievement. Flanders categorizes observed behaviors of teachers as being in the nature of "direct influence" or "indirect influence." Indirect influence includes: behavior that accepts and clarifies feelings; praise and encouragement, asking questions of procedure; accepting, clarifiying student ideas; and general questions. Direct influence includes: routine administration or statements unrelated to learning; giving information or opinion; giving criticism; and justifying authority. Flanders' findings include the following: "The teaching methods we have called indirect produce more achievement. . . . Direct influence decreases learning except when goals have initially been clarified and made acceptable by use of indirect influence."

At the Level of Those Who Influence the Direct Workers

What actions of the principal facilitate or inhibit the innovativeness of teachers? Chesler, Schmuck, and Lippitt (1963) report: "Our data substantiate the assumption that the principal plays an important role in stimulating creative classroom teaching. There is a high and significant correlation between the amount of staff inventiveness, as measured by the mean number of new practices developed by each teacher, and the staff's perception of the principal's support for innovative teaching. There is an even higher correlation between the teacher's perception of his principal's support and his perception of his colleagues' support of innovation. The first finding substantiates the notion that the principal can have a direct influence upon his staff. The second finding substantiates the notion of an indirect role—the principal may encourage an atmosphere where the entire staff publicly supports innovation. Thus the principal's attitudes influence staff norms, and both his orientation and peer standards combine to influence actual staff innovativeness."

How does the position of the teacher in the informal pattern of faculty relationships influence innovativeness in her classroom? Chesler and others (1963) report: "Those teachers who saw themselves involved in dyads or triads were more innovative than those teachers who said

they were either isolated or who perceived themselves on the edge or in the middle of large clusters of their colleagues." However, "most adoption (of innovations) was done by those teachers who occupied positions peripheral to large clusters, not in the center nor in dyads or triads."

At the Level of Influencers of the School System as an Organization

In surveying a number of case studies of change in education, Mackenzie (1964) notes that influence sometimes comes from superintendents, boards of education, citizens, state legislatures, state departments of education, and state and federal courts. There appears to be a particular need for research to clarify the nature of influences at this level. What happens to innovations when they are imposed on the system's various levels from above? What are the effects on learning in the classroom of school board decisions or state legislation requiring certain subjects to be taught? Are there some organizational procedures or structures which are more supportive of creative innovation, and of innovators, than others?

It can be noted that research has already supplied answers to such questions in industrial and governmental fields. Should the results of such investigation be generalized to organizational practice in the field of education? Work done in other fields at least implies that study of similar variables in school-system organization would be worthwhile. An example of such a study, reported by Chesler and others (1963), responds to questions such as: How much influence need the teacher have on the curriculum in order to share innovations? The authors report: "If teachers believe that they have influence, they are likely to feel it is worthwhile sharing information with their colleagues. However, if they do not believe they have influence, or if they are alienated from the social system of the school, then they are likely to feel that there is really no point in sharing because no one will listen. This observation is readily supported by data which reveal that teachers who are seen by their colleagues as influential, competent, and enthusiastic about teaching innovate and share more than teachers who are not perceived in this way."

These authors also report: "The objective structure of the school seems to have a different effect on *adoption* than on *innovation*. In those schools where the communication structure was more hierarchial, teachers adopted more often than in schools with a diffuse structure." On the other hand, "in those schools where the communication structure was more spread or diffuse, and where almost everyone was linked to someone, teachers innovated and shared more than in schools with a hierarchial or non-diffuse structure."

A MODEL OF GOOD LEARNING PROCESS

If the efforts of all who are engaged in the educational enterprise are to be directed toward the support of classroom learning process, it is essential to have a clear conceptual model of that process. Elements of such a model would include the following:

Learning Through Inquiry

Learning is an active, seeking process. It occurs in the "here and now" even though it sometimes deals with matters of the past or the future. The learner needs the opportunity to raise questions born of his own curiosity; he also needs help in forming his questions into productive inquiry projects.

Individualization of Learning

Individual differences in children's rates of learning, readiness for specific learning experiences, and learning styles range widely. On the one hand, these differences can add to the zest of learning for the entire class by providing a breadth of pupil resources and a variety of interests and learning goals. On the other hand, differences challenge the teacher to provide a structure for lea ning that permits learning activities to be planned and paced appropriately for each learner. Individualization is likely to involve extensive use of small, flexible groupings and individual study projects, as well as general class sessions.

Pupil Purpose and the Development of the Self-Concept

Within the model of good learning, pupils are encouraged to become self-directing. They are helped to become clear as to their learning goals. Emphasis is placed on the development of individual identity and on the formulation of a positive self-concept.

Pupil Involvement in Curriculum Planning

The learner needs to have purpose in learning. While the skillful teacher by no means relinquishes responsibility for the basic design of the curriculum and for providing direction in planning specific learning activities, he recognizes that learning is enhanced when the pupil understands and accepts the learning goals and is involved in planning how to reach them.

Use of a Wide Variety of Resources

The effective classroom provides a great variety of learning resources. Different pupils can make best use of different resources: one can read an original article in a scientific journal while another is restricted to materials carefully written to suit his reading level. Materials emphasizing use of auditory, visual, and tactual senses can each contribute added depth to a learning experience. Community resources are increasingly available to school groups. Firsthand data can often replace learning from secondary sources only.

Cross-Ability and Cross-Age Helping

Learning is not only an individual task but a social responsibility. Helping relationships between the learner and other pupils not only enhance the learning of the person being helped, but also motivate added learning on the part of those who help. Opportunities for cross-age and cross-ability interaction can be deliberately arranged. Pupil helpers can be given guidance in how to make the helping relationship productive.

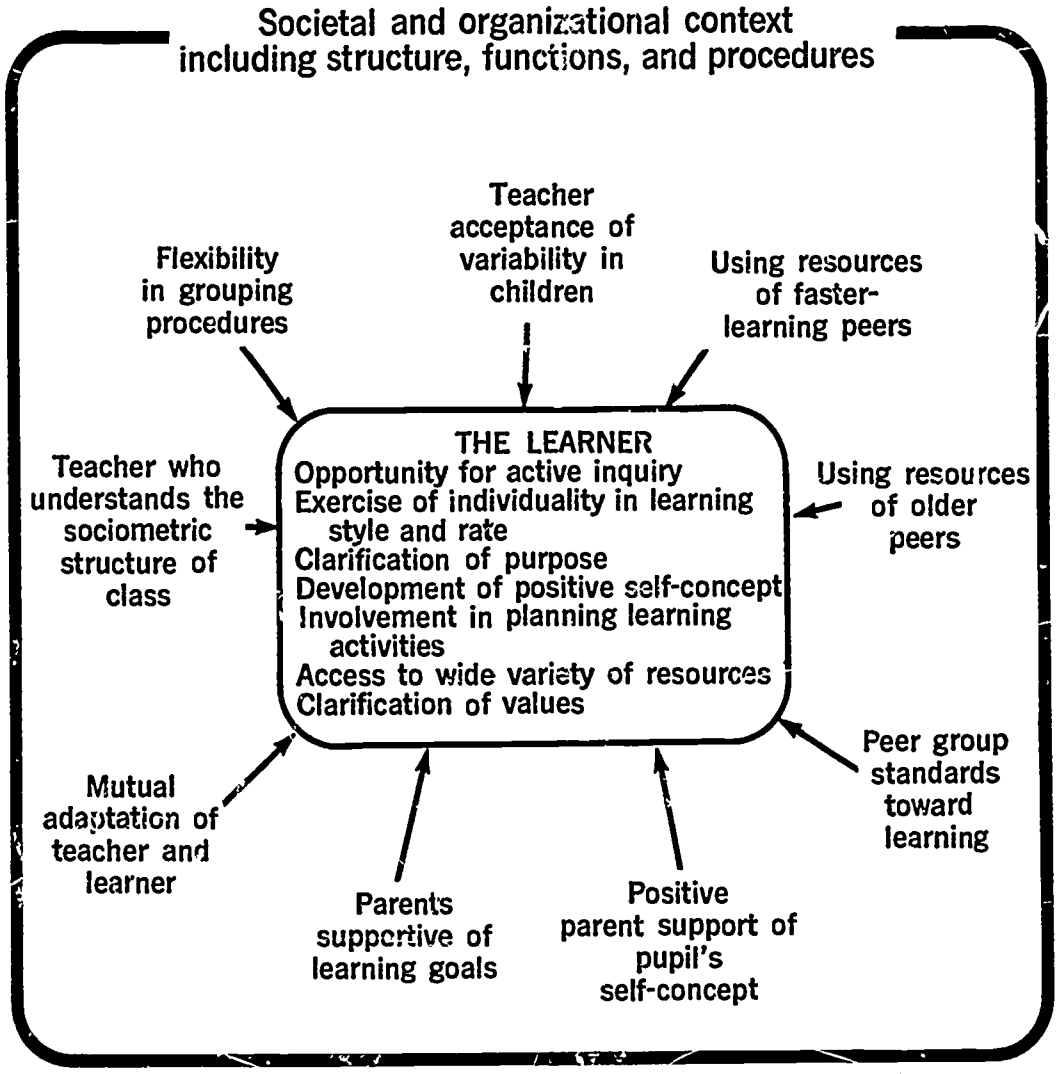
ORGANIZATIONAL FUNCTIONS WHICH SUPPORT THE MODEL OF GOOD LEARNING PROCESS

Figure I presents a diagrammatic model of the direct influences which exist in an organizational and societal context as they interact with the learner to create good learning experiences. (See page 76.)

A number of organizational functions which are needed to support the model of good learning process may be derived from our conceptualization of the school system. Some functions which appear particularly important are suggested below.

Structurally, there is a need to provide for a degree of teacher autonomy which supports innovativeness of classroom teachers. Influencers of teachers, particularly the principal, need skills to assess the nature of the support needed by individuals and particular staff groupings. Simultaneously, there needs to be a kind of linkage among groupings throughout the system to support the identification and spread of innovations. The "link pin" concept which Likert (1964) identifies for industry might serve well here. This linkage involves overlapping memberships in vertical groups to facilitate two-way communication and influence throughout the system. It has been determined that teachers do need explicit influence in the system—both horizontally and vertically—in order that innovativeness be supported.

Figure I. A Model of Good Learning Process



There is also a need for interaction and continuous effort at goal clarification throughout the socialization community. Horizontal collaboration among teachers, parents, peer groups, recreation leaders, social service personnel, youth employers, religious leaders, law enforcement agents, and others is needed. The disfunctionality of lack of communication and of goal and means conflicts between youth socializers has been demonstrated at both the community level (Logan, 1961) and the level of influence on individual children (Jung, 1964).

There is, correspondingly, a need for continuity of educational experiences. Continuity applies in a vertical sense as the child moves through the school system from year to year. It also applies in a horizontal sense as the child moves from teacher to teacher, or from school to club meeting to family, all in the course of a day.

There is a need for continuous growth opportunity for direct workers. Opportunity is needed for the development of interpersonal as well as technological skills. Opportunity is needed for school personnel to continuously test out the extent to which their behavior operationalizes their conceptual orientations. Morse, Bloom, and Dunn (1961) find that there is no significant relationship between these two variables for a random sample of classroom teachers. Opportunity is needed for teachers and administrators to develop diagnostic skills to identify such variables as norms and perceptions in order to better determine needed action and to assess the results of their efforts. Opportunity is also needed for training at the peer group level, such as training older peers to help younger ones. Opportunity is needed for training volunteers to assume certain tasks, thereby freeing teachers and administrators to concentrate more on responsibilities for which they have special competence. There is a closely related need for continuous evaluative feedback throughout the system to identify growth needs and progress and to support objective problem solving and decision making.

There is a need for facilitation of resource availability. This might be thought of as procedures for active linkage between the needs of the system and the resources that may be found both within and outside of the system. An example is found in the Minneapolis system, which catalogues available volunteer resource experts throughout the community so that teachers can identify them and invite them in. Another example is the Birmingham, Michigan, system which is cross-indexing a wide range of social studies materials so that teachers from kindergarten through twelfth grade can develop curricula appropriate to their groups on a day-to-day basis rather than by using a textbook as the curriculum guide. Still another example is found in the demonstration research project on identifying and sharing classroom innovations (Chesler and others, 1963).

Finally, there is a need to identify and deal with change needs throughout the system. This effort is conceived as being more than

simply dealing with individual problems of change as they occur. It is meant as the creation of ongoing functions in the system concerned with the process of change. A system might operationalize such functions by having a team of "change agents" continuously concerned with working with any groupings of personnel to identify and carry out "planned change" efforts in the system (Lippitt, Watson, and Westley, 1958).

ROLES TO CARRY OUT ORGANIZATIONAL FUNCTIONS

Most of the functions to support good learning process which were suggested in the preceding section are probably included to a greater or lesser degree in most school systems. To the extent that their importance is recognized, there is corresponding importance in considering the following kinds of questions: Are the roles to which these functions are designated capable of performing them adequately? Do the people in these roles have adequate time, power, coordinated involvement in the system, and skills to promote these functions? Are all of these functions incorporated in roles within the system? Would some redistribution of these functions among roles lead to improvement? Are some different coordinative mechanisms needed by the system to better support these functions? Are some new individual or team roles needed to better include and support these functions? Are there new linkage mechanisms needed between roles within the system and roles outside of the system which would better support these functions for the system? Are there linkage roles needed between the system and outside resources?

Answers to these questions need to be worked out by individual school systems. Asking them and actively seeking answers is a critical need for the field of education in general. Furthermore, we believe that there is at least one area of roles which need to be further developed by school systems. These would be the roles necessary to deal with identifying and planning to cope with change needs. They would involve some persons in focusing on the change process generally and in providing linkage between persons throughout the system and the resources needed to deal with change in a planful way. These roles might be thought of as comprising a change-agent team (Jung, 1965).

A school system change-agent team would be concerned with linkage to: persons who are experts; organized bodies of knowledge such as theories and research findings; innovations of teachers and other persons who work with youth; persons in different roles in the system; other socializing systems such as organized recreation, therapeutic agencies, or families; services of professional associations; pupils in the system; unused potential of persons within the system; training resources outside the system; and others. The change-agent team might be thought of as

similar in some ways to research and development divisions of industrial corporations.

A STRATEGY FOR PLANNED CHANGE IN SCHOOL SYSTEMS

The following is an outline of the Michigan Region COPED strategy for planned change in school systems. The first step involves the organization of materials conceptualizing planned change phenomena in a form that is appropriate for sharing with school system representatives. These materials were obtained in major part from a review seminar with the other regional university COPED teams.

Inter-university collaboration will continue throughout subsequent steps of developing relationships with local school systems and testing models of planned change with them. Collaboration will be particularly sought in developing a comparative research design, sharing the training of personnel, reviewing procedures, interacting around analysis of data, and working on disseminating outcomes and collaborative procedures.

The next step of the strategy involves the university team in beginning to develop relationships with selected school systems in its region. The region is defined as the geographic area within approximately one hour's drive from the university.

University-School System Relationships

Three kinds of relationships are envisioned:

1. Information-Affiliate System

The purpose of this affiliate relationship would be the active exchange of information between the school system and the COPED organization concerning innovations in educational content, methodology, and models of change procedure. The school system would be responsible for contributing information concerning its innovations—descriptions not only of the nature of an innovation but also of the kinds of change processes utilized to initiate and support the innovation. The school system would receive COPED newsletters containing similar information from other affiliated systems and reports from systems that are collaborating more intensively in developing and studying change procedures. Affiliated systems would be invited to periodic regional conferences to review the activities of COPED and to consider dissemination and adaptation of innovations which they see as relevant. The COPED organization would be responsible for soliciting information concerning innovations, reporting it in the newsletters, conducting the periodic conferences, and coordinating the dissemination efforts.

2. Diagnostic-Affiliate System

The purpose of this affiliate relationship would be to provide a school system with an opportunity to actively explore its change needs, the kinds of resources needed for meeting those needs, and the kinds of collaboration which could make such resources available. As with Information-Affiliate Systems, the Diagnostic-Affiliate System would be involved in sharing innovations through a COPED newsletter, and it would be invited to regional conferences to explore COPED innovations. In addition, the COPED organization would make available instruments for conducting diagnostic inquiries within the system. These instruments would facilitate conducting a problem census of the system's change needs and desires. The system would be responsible for designating staff to take the initiative in using the instruments, in analyzing resulting data, and in seeking any desired consultation from COPED on the implications of the data. The system would also be responsible for helping to maintain a network of communication with other Diagnostic-Affiliate Systems in order to explore mutual needs and the potential for mutually beneficial collaboration in utilizing resources to meet these needs. It is anticipated that this network may contribute to development of an intersystem consortium which would maintain itself following conclusion of the COPED project. COPED would be responsible for contributing to increased awareness of available resources, including such things as training to support adaptation of innovations and assistance in preparing proposals for outside funding.

3. Action-Research Collaborating System

An Action-Research Collaborating System would become an active member of the Michigan Region COPED team. Other members of the team would include faculty members of the University of Michigan School of Education and social science departments, and persons from the Center for Research on the Utilization of Scientific Knowledge of the Institute for Social Research. In addition, there would be an advisory committee comprised of persons from university, state, and professional education groups.

The purpose of being an Action-Research Collaborating System would be to support the growth of a research and development function to facilitate ability to continuously diagnose and meet change needs. The COPED relationship would probably continue for three years with the instrumental purpose of providing training of persons within the system to carry out the research and development function. A goal of the third year would be withdrawal of university-based support of the system in such a way that the research and development function of the system could then carry on autonomously and undiminished. An additional purpose of the three-year involvement would be to contribute to an

increased understanding of models of educational change within the field of education in general.

The Action-Research Collaborating System would be responsible for committing four or five of its personnel to serve part time as its change-agent team. Including one person to act as team coordinator, this team would work within the system on such tasks as diagnosing change needs and conducting change efforts; becoming involved with the university personnel for training necessary to these ends; contributing to conceptualization of models of educational change appropriate to that system; contributing data to help assess the efforts that are made; and contributing to efforts to disseminate worthwhile innovations which may be developed. The system would be responsible for supporting the development of a research and development function and for attempting change efforts which it identifies as needed. It would be responsible for contributing data collected periodically to assess the results of change efforts and the extent to which research and development functions are being incorporated. The university personnel would be responsible for providing training and consultation for school system change-agent teams; for collecting and analyzing assessment data; for contributing to awareness of available resources to meet change needs; for conducting periodic regional conferences; for communicating information about activities and innovations developed at the other COPED regional settings; and for coordinating dissemination efforts.

Functions of the University Team

Specifically, the functions of the university team are seen as including the following:

a. To recommend diagnostic procedures and to help develop necessary skills for using them.
b. To develop an inventory of, and support linkage to, relevant resources within the university. This would include involvement of interns from Extension, the School of Education, and the Bureau of School Services.
c. To collect and disseminate information concerning school system innovations in dealing with change.
d. To conduct periodic regional conferences concerning change in education.
e. To analyze and report data concerning change in school systems and results of training to support this end.
f. To coordinate efforts to disseminate school system innovations in dealing with change.
g. To collaborate in conducting training events to develop skills in conducting planned change efforts.
h. To consult on conducting planned change efforts.
i. To demonstrate some particular educational innovations.

The School System Team

Functions of the school system operating team are seen as including the following:

a. To diagnose current structure and strategy for initiation and maintenance of change within the system.
b. To work with and utilize the university-based personnel and resources.
c. To design and implement activities directed toward improving staff leadership and skills in initiating and supporting change efforts in areas such as:
   (1) faculty meetings conducted as staff development activity.
   (2) faculty communication.
   (3) exchange of practices and innovations among teachers and among buildings.
   (4) skill in use of outside consultants.
   (5) principal's role in supporting change efforts of teachers directed toward improved classroom learning.
d. To improve the linkage between the school system and other agencies working on child and youth development, e.g., family, church, and youth employers.
e. To do diagnostic work for deriving appropriate and feasible designs for the improvement of the system's structure and procedures for change.

The school system operating team might involve persons from roles at different levels within the system. Criteria for membership on the school system operating team include the following:

a. The individual's role is flexible; it has potential for modification.
b. The individual's role currently includes some major responsibility for initiating and managing change.
c. The individual has personal interest in learning more about the role of the change agent and in serving more actively in this role. (For the coordinator of the team, this would include a readiness to be involved in additional training such as further work toward an advanced degree, participation in a National Training Laboratories (NTL) internship program, and a temporary joint appointment in the university setting.)
d. The individual has skills in leadership and is accepted by colleagues in leadership roles relative to change.
e. The individual's location within the hierarchy of the school system gives him access to staff roles relevant to dealing with change including access to elementary and secondary school settings.
f. The individual has time to commit to the development and operation of a "temporary system" which can engage in such activities as research and development programs, in-service training, and linkage

to external resources. This would mean approximately one-half time for the coordinator and one-fifth to one-half time for the other members.

Advisory Groups

In addition to the school system operating team, there would be a Support and Review Committee of the system. Its membership would include such roles as the school superintendent, members of the board of education, P.T.A. presidents, curriculum directors, representatives from among elementary and secondary principals, representatives from among the teachers, and student representatives.

There would also be a Regional Advisory Committee to the Michigan COPED group of school systems and university personnel. This committee would be composed of representatives from state, university, professional, and school system organizations.

Initiating the Strategy

To begin the work with school systems, a one-day regional conference was held for teams of representatives from 25 school systems in the Michigan COPED region. Invited school systems were selected from approximately 250 systems within an hour's drive of the university on the basis of heterogeneity of type, size, and population served. The purposes and intended procedures of COPED were explained. Research findings were presented on two topics: "Classroom Conditions Which Influence the Learning Experience of Children," and "Organizational and Community Conditions Which Influence the Learning Experience of Children." Participants derived implications for change and innovation from these research findings. The concept of the "force field" was presented as a diagnostic tool to be used in planning change efforts. Participants had an opportunity to develop force fields in relation to change concerns which they identified. "An Outline of Basic Designs for the Improvement of Education Organizations and Practices" was presented and discussed. The school system representatives supplied data concerning the nature of their systems, current change efforts and interests, change procedures, and possible interest in becoming further involved in COPED. Reaction to the conference was very positive. By its end, 13 teams indicated definite interest in further involvement. Ten of these were considering involvement as Action-Research Collaborating Systems. Representatives of one system felt further involvement was doubtful. The remaining teams felt the need for discussion with back-home colleagues before indicating possible interest of the systems they represented.

Steps for becoming involved as a COPED Action-Research Collaborating System were described as including:

a. An indication of possible interest on the form provided at this meeting.
b. An exploration with university personnel of the proposed phases of the three-year relationship for further clarification of the implications of involvement and the potential outcomes.
c. A decision of the school board and system administration to become involved.
d. A request to COPED to become involved. (Systems are to be selected on the basis of an inter-regional design which insures a variety of types of school systems. Therefore, the Michigan region may have to ask some systems that would have liked to be involved in the team to accept an affiliate relationship instead.)
e. The initiation of collaborative work to develop a change-agent team and to begin to collect diagnostic and assessment data.
f. A summer training program for change-agent teams (probably including a two-week intensive training experience).

The next step involves development of trial relationships between the university team and school system teams that are interested in exploring action collaboration. Surveys of the nature of these school systems, their change needs, their current change projects, and their operating procedures are part of this step. Such an inventory allows a tryout of diagnostic tools and collaborative procedures, provides data which might later be useful in a comparative experimental and control research design, and helps in the development of an evaluative design coordinated with the other COPED regions.

Once the active collaborating school systems are identified, data can be collected concerning the attitudes, orientations, and skills of members of the system's change-agent teams. This information can be used for eventual assessment of change in the change agents. It can also be helpful in designing a training program for the system teams as they work together with the university team. An initial intensive training design is anticipated, followed by regular periods of continued training as an integral part of an action-evaluation training design of the project. Training would focus initially on the development of working relationships within each school system and between school systems and the university team. An additional initial focus would be on diagnostic skills which could be applied by each team to its system.

Five categories of training are considered important. The first involves training teachers to use—and to demonstrate to other teachers—action-research skills for developing and adapting innovations in their classrooms. The second category involves training teachers to contribute to research and research utilization efforts within the system. The third class involves training school system administrators in research utilization and application, in using action-research skills to provide leadership for

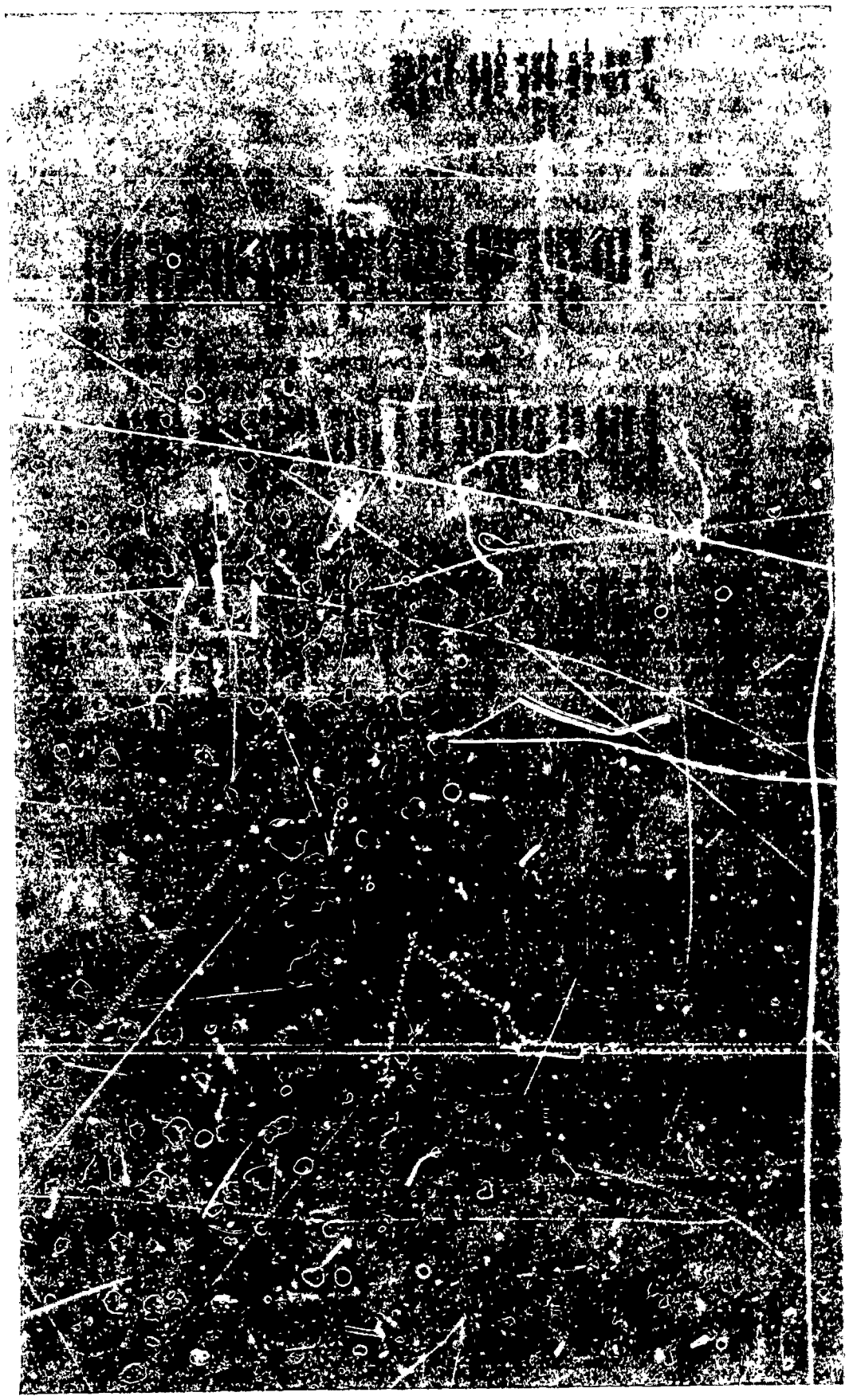
changes in the system. The fourth category involves training graduate students in university social science departments in the skills of collaborating with educational practitioners in conducting action research. The fifth category involves training faculty members of schools of education to contribute to the development of new professional specialties of research utilization and action research.

Projected training activities for some or all participants in the Michigan COPED program include the following:

a. Participation in one or another part of the summer program for educational leaders conducted by the National Training Laboratories at Bethel, Maine.
b. A five-day workshop for school system change-agent teams.
c. Regular meetings of local system teams, with consultation from university teams and interns.
d. Occasional inter-system team meetings for sharing and reacting.
e. Local training events for system personnel in relation to the strategies for developing particular innovations.
f. University courses on action-research skills and the dynamics of planned change.
g. A monthly seminar for superintendents and other central administrators to focus on implications for structural and functional change in the system.

The next step involves identifying and undertaking specific change efforts in each of the school systems. First, the system team needs to identify specific change goals and to diagnose the change situation. Change methodology then needs to be determined. An effort to define the assessment and feedback needs in the change procedure is required. These procedures provide guidelines for specific change targets and for continued training within the system for skill development as the change efforts are undertaken.

Repeated diagnosis of the change situation is necessary to identify further needed changes or additions of goals and procedures. The overall end goals within the system should be: the institutionalization of the change procedure; adoption by the system of desirable aspects of the particular change efforts; and documentation and evaluation which make possible the dissemination of this change model to other settings within, as well as outside of, the school system and its creative adoption in those settings. Additional end goals would include establishment of a network of school systems collaborating with each other and with the university to deal with problems of educational change. Trainers of persons to carry out and support processes of change in school systems must themselves be trained. Exploration and tryout of procedures for training those trainers should result in a technology of training and a



pool of trainers which together would represent a significant new resource.

The chart that is presented here indicates the anticipated flow of activities during the last 18 months of a two-year COPED operation. During this period, the focus of school system innovations is expected to be at the classroom and local school levels. During a subsequent third year of operation, this focus would continue and a focus on school system structural innovations would be added. The Michigan region team feels that at least a fourth year of operation is needed to consolidate what has been learned about models of change, to determine the extent to which the school systems have incorporated self-renewal functions which can operate independently of university collaboration, and to disseminate results effectively to other school systems and interested groups.

BIBLIOGRAPHY

Bateson, Gregory. "Morale and National Character." *Civilian Morale.* (Edited by Goodwin Watson.) Boston: Houghton Mifflin Co., 1942. Chapter 2.

Chesler, Mark; Schmuck, Richard; Lippitt, Ronald. "The Principal's Role in Facilitating Innovation." *Theory into Practice* 2: 269-77; December 1963. (Columbus: Bureau of Educational Research and Service, College of Education, The Ohio State University.)

Chesler, Mark, and others. *The Teacher as Innovator, Seeker and Sharer of New Practices.* Report of the Institute for Social Research. Ann Arbor: University of Michigan, 1963.

Flanders, Ned A. *Teacher Influence, Pupil Attitudes, and Achievement.* U.S. Department of Health, Education, and Welfare, Office of Education, Cooperative Research Project No. 397. Minneapolis: University of Minnesota, 1960.

Fox, Robert; Lippitt, Ronald; and Schmuck, Richard. *Pupil-Teacher Adjustment and Mutual Adaptation in Creating Classroom Learning Environments.* U.S. Department of Health, Education, and Welfare, Office of Education, Cooperative Research Project No. 1167. Ann Arbor: University of Michigan, 1964.

Jung, Charles C. *Flint Schools Experimental Program for the Emotionally Handicapped: Final Report.* Report of the Institute for Social Research. Ann Arbor: University of Michigan, 1964.

———. "The Trainer Change-Agent Role Within a School System." This volume, pp. 89-105.

Lippitt, Ronald. "Unplanned Maintenance and Planned Change in the Group Work Process." *Social Work Practice.* New York: Columbia University Press, 1962.

Lippitt, Ronald; Watson, Jeanne; and Westley, Bruce. *The Dynamics of Planned Change.* New York: Harcourt, Brace and Co., 1958.

Logan, Jack. *Flint Community Leaders Seminar Reports.* Report of the Institute for Social Research. Ann Arbor: University of Michigan, 1961.

Mackenzie, Gordon N. "Curricular Change: Participants, Power, and Processes." *Innovation in Education.* (Edited by Matthew B. Miles.) New York: Bureau

of Publications, Teachers College, Columbia University, 1964. Chapter 17, pp. 399-424.

Morse, William C.; Bloom, Richard; and Dunn, James. *A Study of School Classroom Behavior from Diverse Evaluative Frameworks: Developmental Mental Health, Substantive Learning, Group Process.* U.S. Department of Health, Education, and Welfare, Office of Education, Cooperative Research Report No. 753. Ann Arbor: University of Michigan, 1961.

Schmuck, Richard, and Van Egmond, Elmer. "Sex Differences in the Relationship of Interpersonal Perceptions to Academic Performance." *Psychology in the Schools* 2: 32-40; January 1965. (Brandon, Vt.: Psychology Press.)