INNOVATION IN PLANNING SCHOOL CURRICULA.

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THE CONTENT OF THIS DOCUMENT DETAILS THE RESEARCH DONE FROM SEPTEMBER 1965 TO AUGUST 1966 BY THE STAFF OF THE NATIONAL EDUCATION ASSOCIATION CENTER FOR THE STUDY OF INSTRUCTION (CSI), UNDER THE TITLE "INNOVATION IN PLANNING SCHOOL CURRICULA." THE YEAR'S RESEARCH WAS ADDRESSED PRIMARILY TOWARD NARROWING THE GAP BETWEEN THEORY AND SCHOOL PRACTICE WITH REGARD TO THE RATIONAL PLANNING OF CURRICULUMS. SEVERAL DIFFERENT METHODOLOGIES WERE EMPLOYED DURING THE COURSE OF THE YEAR. A CONCLUDING OBSERVATION ON THE YEAR'S WORK WAS THAT SYSTEMATIC PLANNING OF SCHOOL CURRICULUMS CAN BE INNOVATIVE, PARTICULARLY WHEN BUILT UPON ANY KIND OF COMPREHENSIVE CONCEPTUAL SCHEME. (REFER TO ED 010 315 FOR ADDITIONAL INFORMATION.) (LP)
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INNOVATION IN PLANNING
SCHOOL CURRICULA

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National Education Association
Center for the Study of Instruction (CSI)
Washington, D. C.
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INTRODUCTION

The Problem

The function of pure research in any field is different from the function of application of theory. It calls for resources in human talent and time for exploration of another order, a kind of inventive engineering. Conceptual models must be developed for testing the validity of theory in practice; from the successful models widespread applications can be made.

According to Wilbur Schramm, three principles must be observed in effective communication: campaign, involvement, and demonstration. It can fairly be said that in too many instances communication in education breaks down at all three levels.

Educational research frequently is halted with the issuance of a report--there is no real campaign to inform practitioners further. Dissemination is faulty and incomplete. Involvement is, moreover, haphazard. Demonstrations are often unrelated to theory. There are almost no avenues through which theorists or researchers can receive any feedback of major proportions on the application of their work. With money now more readily available, we need to develop better concepts and tools than we now have to inform and involve schools and school people in innovative practices and to evaluate those innovations. We need dynamic counterparts in education of the often-cited and very effective campaigns of home demonstration agents and extension stations in agriculture.

Under current pressures, schools are rarely able to test out ideas in terms of the total school program because most lack a framework in which to work. Hence the piece-meal approach to change. Most innovations now introduced focus on one curricular area or on new media or on rearrangements of space and personnel wherein more efficient learning may or may not take place because of inadequate
approaches to curriculum substance and process. There is a vast difference between adapting a broad design to a local situation and applying a piece of the design in the name of the whole and expecting the same results.

In education, those schools now in the vanguard in attempting educational programs are often working under conditions which militate against the success of their programs. The lacks most often mentioned have been that of money and sufficient time for teachers and supervisors to devote to planning the new enterprise. Help from educational consultants is limited by their availability even more than by the school's ability to pay. A further lack is that there are so few people in the schools who have had experience in translating new theory into practice and who, in addition, have been able to operate in circumstances where failure is tolerated, let alone examined or reported.

A great deal of effort and much time and money have been committed by schools to innovative programs which are then widely publicized. They are visited extensively by other hard-pressed school people who seek solutions to some of their own problems. The schools' press coverage frequently stems from their success in having been able to engineer a departure from the norm, which is not easy. But this can obscure a more important aspect of their activity—the validity of what they are doing and the extent to which it is actually reaching students to improve their learning.

The great commitment by the schools and the degree to which they are held up as promising examples make it virtually impossible for them to be anything but positive about the results they are getting. They are on display. Because they are on display, they function in an atmosphere which changes the very nature of the particular experiment being attempted. Distortions in the initial application of new approaches are then further wrenched away from the original concepts by the lack of a free period for field-testing.

Pressures from lack of money are now being somewhat
alleviated. As a result, a great many schools are finding that their biggest problem is still to be faced—the need to develop good programs so that their new funds can be used wisely and effectively for better learning.

This project has been addressed to the task of planning the first phase of a long-range effort to aid schools adapt and use theories of rational curriculum planning.

Selected Reviews of Related Literature

It is not possible to review and evaluate the many reports on research in curriculum planning and development here. This task is undertaken every three years by the Review of Educational Research. The June 1966 issue on "Curriculum Planning and Development" is just off the press and reviews the literature in the field for the three-year period from June 1963.

During the course of this year's project, however, a selected bibliography on curriculum theory and the dynamics of planned change was produced and is included in this final report as Appendix A. In addition, the selection and writing of appropriate descriptions of instructional models were part of the year's research. These descriptions are attached as Appendix B.

The initial planning of this project included also attention to one aspect of the literature which has had special relevance for the year's work. This is to be found in recent writings on the process of change and in progress reports of some of the more comprehensive programs.

At that time we cited and reviewed seven studies as follows: Project on Instruction reports, CSI filmstrips and study guide; the work of Henry M. Brickell and of Matthew B. Miles; the Metropolitan Study Council movement; the Ford Foundation's school improvement programs; the findings of a recent ASCD Seminar on Strategies for Curriculum Change; and the work of the University Council on Educational Administration.
1. **Project on Instruction Reports**

Two volumes of the Project on Instruction report are important for consideration here. *Planning and Organizing for Teaching* analyzes three related sets of problems: organizing the curriculum; organizing the school and the classroom; and organizing personnel, space, and materials. It considers curricular sequence, when to teach what, the nongraded and graded school, team teaching, the self-contained classroom, ability grouping, educational television, programed learning, automation, instructional materials centers, and space utilization.

*Deciding What To Teach* discusses such issues as establishing priorities and balance in the curriculum, selecting and organizing content, identifying the role of the disciplines in the school program, developing the potentialities of all children, determining the school's role in dealing with national problems, and teaching about controversial issues.

Each of these volumes, as well as the other publications of the Project and the Center for the Study of Instruction, serve as general guides. The experience of the CSI staff and its consultants in the field led to the production of a study guide, *From Bookshelves To Action*, and two sound-color filmstrips.

2. **Organizing New York State for Educational Change**
   
   Henry M. Brickell
   
   *Commissioner's 1961 Catalog of Educational Change* - Henry M. Brickell

The first of these studies is an analysis of the dynamics of instructional innovation in one state; the second is an inventory of new instructional programs being used in elementary and secondary schools in that state. Both studies focus exclusively on innovations which require significant shifts in the normal arrangement of the major structural elements of a school, such as ETV, team teaching, nongraded classes, and large and small group
instruction. Both studies have the same significant limitation in that they neglected to investigate classroom practices. The Catalog was developed from questionnaires, which prevented any direct contact with the schools' instructional programs.

The report, Organizing New York State for Educational Change, was strengthened by the elimination of compromise so often reflected in committee or commission reports and by the independence with which the author was able to function. By the same token, it suffers somewhat by the physical limitations inherent in having one man as investigator and author on a complex subject, however fine his insights. That Brickell was effective in the tasks he undertook is very clear, however. Both of his studies have helped to bring about statewide action in New York to accelerate the pace of change and to improve its direction.

3. Innovation in Education — Matthew B. Miles, Editor

This volume is a compendium of articles and research reports in which close attention is paid to the processes rather than the content of change programs. Its breadth complements the Brickell studies of one state. Nine case studies are cited and reasons given for the success or failure of the experiments attempted. A second group of studies reports the results of research on teacher acceptance and resistance and on administrative behavior and power, stressing how forces like these in social systems help determine the outcome of programs for change. Other studies in this group evaluate the effect—or lack of effect—of research and theory upon innovative practice. A third section is devoted to studies of the American educational system as a setting for change, and the interplay of influences between schools and colleges and other public and private interests is analyzed.
As an overview volume, *Innovation in Education*, provides some valuable generalizations about the implementation of change at all levels of the educational spectrum.

The following material on the planning and execution of change processes is especially pertinent to the activities suggested in this proposal.

The installation of an innovation in a system is not a mechanical process, but a developmental one, in which both the innovation and the accepting system are altered. . . . Yet, for various reasons—perhaps connected with existing educational ideology—deliberate planning of change is more often than not slighted, rejected . . .

. . . it seems very clear that for almost all innovations, the process of implementation itself needs careful study, planning, and experimental work.

. . . it seems likely that the most theoretically powerful strategies are likely to be those designed to produce 'metachanges'—second-order changes which will lead to further changes. Examples of these are the installation and use of new feedback loops, such as . . . regular use of diagnosis and improvement sessions which aid organizational self-consciousness; and use of consultants on organizational problems.

Certain characteristics of strategies have been asserted to make for effectiveness: comprehensive attention to all stages of the diffusion process; creation of new structures, especially by systems

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2Ibid., pp. 647-648.

3Ibid., p. 648.
outside the target system; congruence with prevalent ideology in the target system . . .; reduction of pressure on relevant decision-makers, and use of coalitions or linkage between existing structure, or between old and new structures.¹

4. Metropolitan School Study Councils², ³

The Metropolitan Study Councils, modeled on the Council established in New York City by Mort, were among the first examples of school and university cooperation in attempts to solve common problems of schools. Lack of funds, lack of time for teachers to participate, and lack of focus on strategies for change are major defects which have prevented these organizations from being as effective as was hoped.

The New York Council has served a useful function in analyzing and reporting studies of change and of the diffusion process. Like the others, however, it has not contributed directly to the initiation of change.

5. Comprehensive School Improvement Programs

The Ford Foundation has supported a wide range of individual projects designed to improve education in the schools. Since 1962, however, major support has been given to comprehensive programs that demonstrate the use of multiple approaches operating simultaneously, rather than to such individual innovations as team teaching, ETV, teacher aides, flexible scheduling, and the like.

Since most programs are ongoing, formal progress reports are not available. However, one of the initiators of

¹Tbid., pp. 648-649.


this project (Sand) served as consultant to a conference in January 1965, in Denver, at which directors of the various comprehensive programs attempted to assess their current status. In January 1966, three CSI staff members (Sand, McClure, Thompson) served as consultants at a second Ford conference in Ft. Lauderdale, Florida. One missing component was acknowledged by nearly all participants at both meetings. After two or three years of operation, the group felt the lack of formally stated educational objectives and of a theoretical base to serve as guiding conceptions for the programs. Although many practices have been changed in the member schools, an emerging priority is attention to the technical and complex tasks of formulating and validating the educational objectives for the total program.

6. The ASCD Seminar on Strategies for Curriculum Change
New Orleans, January 1965

Two papers delivered at this meeting are relevant. One was the summary of a rationale for curriculum change proposed by Lippitt. He discussed eight special features of the change process in education which are different from those in medicine, agriculture, and other fields. He then proposed five models of curriculum development including the retrieval of expertness, the location, documentation, and retrieval of significant innovations, the collaborative research and development process within a system, the experimental feasibility test, and the diffusion process. In addition, contexts and agents of the change process and dimensions of ferment for the future were outlined.

The major point related to our concern is that in education most inventions are inaccessible and invisible. Many teachers feel inhibited when it comes to innovation and feel that they should be inventing each new practice themselves. The doctor does not invent every pill that he prescribes; the farmer does not invent each seed that he plants. Schools do not need to repeat all the steps of innovation, nor are they equipped to do so.

Another point in the Lippitt rationale is the significant lack of a professional network of dissemination. Too
frequently research studies—even those of the U. S. Office of Education—are filed in the Library of Congress and are unavailable, thus making no difference in the behavior of teachers. Too often institutional curriculum designs and patterns and instructional processes are seen as separate entities.

A second paper by Kimball Wiles identified 1957 as a significant transition date in considering educational change processes. Prior to that date, change was brought about by evolution. After 1957, change came by revolution with an emphasis now on directed change. Wiles suggested that basic research, field testing, and evaluation should be done from outside the school system and that, since the administration is the key to the local school structure, introduction of major instructional innovations must be made by them.

7. University Council for Educational Administration—Articulated Media Project

The Articulated Media Project of the University Council for Educational Administration is attempting to improve the professional preparation of administrative personnel in education through the creation and use of new modes of university intercommunication and cooperation. One strength of this development that seems to be lacking in other projects reviewed is the built-in plans for dissemination and the task force operation in which institutions move directly to the invention of program designs without the long term period of concept development so often involved in task force operations. Sand serves as a member of the Advisory Committee to this project.

Objectives

The broad aim of this project was to facilitate the application of recent research in the planning of pre-school through junior college curricula and research in the process of change by drawing on a wide variety of resources in personnel not readily available to a school system. Leading theorists, with the help of school people, were to develop from this research some principles and specific guidelines for institutional planning.
which could later be field-tested and translated into instructional plans.

More specifically, this project was directed toward the following goals related to the problems discussed earlier:

1. involvement of outstanding theorists on problems of curriculum planning and change at the local level. This involvement was planned for in both depth and breadth. Writers of position papers were to explore certain problems in depth. CSI consultant teams, which were to include theorists, academic specialists, and schoolmen, would provide breadth through the range of their experience across the country.

2. development of a rationale for planning school curricula so that school personnel can develop a comprehensive program. By this we mean a series of interrelated, systematic, coordinated, long-range projects affecting the total educational program of a school or school system.

3. development of plans for systematic field-testing and demonstration of the above-mentioned rationale in schools which will allow for appropriate adaptations as the field-testing indicates need for changes in design.

4. involvement of selected, divergent schools and school systems in the beginning stages of planning for change, including help in building plans for evaluation of their programs early rather than after the fact.

5. utilization of NEA's vast network for dissemination of information, building particularly on the groundswell of interest already manifested in Project on Instruction materials related to curricular planning.

METHOD

This research project, as indicated earlier, was addressed to the planning of a long-range effort to help schools adapt and use theories of rational curriculum planning. The methodology in this case consisted of a series of activities designed to bring the total problem into focus and to pinpoint the resources needed for systematic development, study, and dissemination of the effects of
comprehensive curriculum theory in action. These activities are here described in chronological order and in four phases or quarters. The first quarter covers the period September 1, 1965 to November 30, 1965; the second quarter from December 1, 1965 to February 28, 1966; the third quarter from March 1, 1966 to May 31, 1966; and the fourth quarter from June 1, 1966 to August 31, 1966.

I. Major activities during the first quarter (September 1, 1965 to November 30, 1965)

A. Commissioning and receipt of eight position papers. These papers attempted to pinpoint the processes and substance necessary in planning for rational and effective curriculum change. The titles and authors of these papers were:

1. Processes
   a) The Curriculum  
   John I. Goodlad
   b) An Exploration and Assessment of Existing Avenues of Change  
   Henry M. Brickell
   c) An Examination of Potential Change Roles in Education  
   David L. Clark and Egon G. Guba

2. Substantive Necessities in Planning for Curricular Change
   d) Guidelines to Help Schools Formulate and Validate Objectives  
   Robert Brackenbury
   e) Guidelines for Selecting Learning Activities and Materials from Audio-visual Resources  
   Edgar Dale
   f) Guidelines for Selecting Learning Activities and Materials from Library Resources  
   John Rowell
g) Guidelines for Curriculum, School, and Classroom Organization
   Glen Heathers

h) Evaluating Pupil Progress in Educational Achievement
   Esin Kaya

The papers are attached to this report as Appendix C.

B. Planning, organizing, and administering a seminar on "Innovation in Planning School Curricula." On October 2, 3, and 4, a seminar was held at Airlie House, Warrenton, Virginia. The conference reviewed the position papers, elicited ideas concerning the project direction, and considered possible sites for field-testing. Participants included five CSI members, nine writers, nine school and college consultants, and one secretary. (See Appendix D for names)

C. Summarizing and reporting the highlights of the Airlie House Seminar.

D. Reorganization and expansion of the CSI network of consultant teams.

E. Review and endorsement of initial plans by the CSI Advisory Committee, October 1965.1

F. Staff participation in meetings related to project purposes:
   1. The National Advisory Board of the National Center for School and College Television in Bloomington, Indiana on October 8 and 9.
   2. Strategies for Educational Change held on November 8, 9, and 10, sponsored by Ohio State University and the USOE.

1Members of the CSI Advisory Committee are: John I. Goodlad (Chairman), Lois V. Edinger, John H. Fischer, J. Steele Gow, Jr., S. P. Marland, Jr., and Lester W. Nelson.
3. **Seminar on Curriculum** at Teachers College, Columbia University on November 8, 9, and 10.

4. The **NEA Regional Conference on Instruction** on November 17-20 (to report on "Innovation in Planning School Curricula"), and the **ASCD Second Seminar on Strategy for Curriculum Change** in Atlanta, Georgia, January 8-11, 1966.

5. The director of CSI was the principal speaker at the fall meeting of the Association of Independent Schools of Greater Washington on October 19, and members of the CSI staff attended a Workshop on Inquiry Training for independent school teachers at Beauvoir School on October 29. This was expected to be the precursor of some involvement of independent schools in this project.

6. Meetings with New York, Pennsylvania, and New England CSI Consultant Teams to induct new members and familiarize them with the purposes of the Innovation Project.

F. Other reports and speeches:

1. The director of CSI spoke to the educational administrators of San Diego County and City on September 24, to the School Trustees of Southern California on September 25 in San Diego, and to the National Association of State Boards of Education on October 13 and 14 in Portland, Oregon. Hopes and plans of the Innovation Project were discussed.

2. The research associate spoke to the faculty at Spring-Ford School District, Royersford, Pennsylvania. The purpose was to explore possibilities for the involvement of this district.

3. The research associate wrote a brief paper on "Planned Change" for the Ohio State University Newsletter.
II. Major activities during the second quarter (December 1, 1965 to February 28, 1966)

A. Work at Site 1 - Montgomery County, Maryland. A number of site visits were made to the schools and many meetings held with representatives of the Montgomery County school system to develop proposed activities in that county. These culminated in meetings with the Board of Education to inform them of the project and to determine their interest regarding involvement in the project. The Board of Education unanimously approved the following resolution on February 7, 1966: "Resolved, That the Superintendent express the willingness of the Montgomery County Public Schools to participate in this project, subject to the Board of Education approval of the final proposal which will be submitted at a later date."

B. Work at Site 2 - Philadelphia Public Schools. Site visits were made to Philadelphia and a meeting was held with the Superintendent of Schools for planning purposes.

C. Work at Site 3. Continued conversations with the principal of Beauvoir School took place regarding the feasibility of a joint program with a group of independent schools.

D. Work at CSI. The preparation of a first draft was completed of a research design entitled, "Studies in the Rational Planning of Curriculum and Instruction." Informal meetings were held with representatives of the Bureau of Research, United States Office of Education, and with CSI consultants for a critical review of the first draft. A series of meetings was held with CSI consultant teams to continue reorganization and coordination of network relating to consultation work on proposed program. Initial editing of Airlie House Seminar papers was begun.
E. Other reports and speeches related to planning the program:

1. The director, associate director, and program specialist of CSI attended the Ford Comprehensive School Improvement Project Conference at Fort Lauderdale, Florida on January 2-6, 1966.

2. The associate director of CSI attended the Monterey County Title III Conference in Carmel, California on January 20-21, 1966.

3. The director gave the principal address at the NEA Regional Conference on Instruction in Spokane, Washington on January 27-29, 1966, and spoke before the AASA Convention in Atlantic City.

4. An article entitled, "Get On with the Job," by research associate Donald Myers was published in the November, 1965 issue of Strategies for Educational Change Newsletter.

5. The associate director was a speaker at the Second International Curriculum Conference in Toronto, Canada on February 8-10, 1966.


F. Staff participation in meetings related to project purposes:

1. The project coordinator participated in a
conference sponsored by the Center for Coordinated Education, Santa Barbara, California on February 6-8, 1966 on "The Purpose and Function of School Consortia."

2. The research associate attended the ASCD Second Seminar on Strategy for Curriculum Change in Atlanta, Georgia on January 8-11, 1966.

3. Four members of the CSI staff attended the AASA Convention in Atlantic City on February 12-16, 1966.

4. The associate director and program specialist met with the CSI Pennsylvania consultant team and, later, with two members of the CSI Advisory Committee. Both groups discussed possible fruitful working arrangements between the Pennsylvania Team and a proposed state model of rational curriculum planning. Also, future developments of this project and relationships between a state-wide program and this action model were considered.

III. Major activities during the third quarter (March 1, 1966 to May 31, 1966)

A. Completion of a research design. The major activity of this period was concentrated work on a research design for studies in rational planning of curriculum and instruction in selected school systems. This design includes an analysis of the problem and state of the field, description of a theoretical framework, and development of a plan for research. (See Appendix E for full design) In addition, the following related activities represent the culmination of several tasks on which the CSI staff has been working for a long time: (1) a bibliography on curriculum theory and the dynamics of planned change (Appendix A); (2) an updated roster and map of consultant teams (Appendix F); (3) profiles
of the Montgomery County and Philadelphia Public School Systems (Appendix G); (4) a sample of required research activities for the Montgomery County Schools (Appendix H); (5) an annual report of CSI (Appendix I). The intensive focus on the detail of the research design has also involved further planning with leaders from Montgomery County and from Philadelphia.

B. **Full review and endorsement** of the research design by the CSI Advisory Committee in April, 1966.

C. **Consultant teams.** As the research design has taken shape, the role of the CSI Consultant Teams in relation to the program has become more and more important as can be seen by referring to Appendix J. These seven teams, with a total membership of 60, include scholars and practitioners from public and private schools, colleges and universities, and professional associations. The CSI Annual Report contains a resume of their activities from June 1965 to April 1966. These activities fall into several categories: (1) disseminating information about the Report of the Project on Instruction; (2) serving as catalytic agents for new programs; and (3) assisting practitioners in the development of local rationales.

D. **Staff assignments, speeches, and meetings related to planning the program.**

1. The director of CSI has served as a consultant to the Midwest Team, USOE National Program of Educational Laboratories, and to Title III, PACE. He also has recently accepted appointments to the following groups: The Advisory Committee of NAEB's National Project for the Improvement of Televised Instruction; the Project Policy Committee of the Music Educators National Conference Contemporary Music Project; the Advisory Committee of the University Council
for Educational Administration's Articulated Media Project; the National Commission on Industrial Arts Education; and the ASCD Board of Directors (member-at-large).

Among the groups the director has addressed during this period are: National Catholic Educational Association, Music Educators National Conference, the Annual Conference of the Association for Supervision and Curriculum Development, the National Convention of the Department of Elementary School Principals, the Milwaukee Conference on Public Education sponsored by local lay groups, and the elementary school principals of Duluth, Minnesota.

In March, the director and associate director conducted workshops on every island of the State of Hawaii at the request of the Hawaii Education Association, the State Department of Education, and private schools of the islands.

2. The associate director continues to coordinate the activities of the CSI Consultant Teams. He also coordinated the annual meeting of the University Personnel Investigating Team Teaching, now called Investigators of School Organization. In addition, he presented a paper at the Department of Elementary School Principals' Convention.

The program specialist served on an advisory group working with the staff of the Eastern Educational Network to design a series of televised programs for teachers which will be concerned with instructional innovations.

The USOE project coordinator serves on the National Advisory Board of the National Center for School and College Television. She and the program specialist visited the
Center for Coordinated Education at Santa Barbara, and the League of Cooperating Schools and the University Elementary School at UCLA.

The research associate presented papers at the annual meetings of the American Educational Research Association and the Department of Elementary School Principals. In addition, CSI and its consultant team leaders conducted a five-day seminar at the 1966 convention of the Association for Supervision and Curriculum Development.

IV. Major activities during the fourth quarter (June 1, 1966 to August 31, 1966)

A. Refinement of projected research on rational planning through identification of alternate models of instruction and further planning and visitation with Montgomery County and Philadelphia. (See Appendix B for descriptive material on instructional models.)

B. Final editing of the Airlie House Papers for publication in the fall. A volume to be entitled Essays on the Rational Planning of Curriculum and Instruction is planned. It will use some, but not all, of the Airlie House Papers. Considerable rewriting of the papers has been undertaken by the authors and two new papers, in keeping with the overall theme and thrust, have been added. (See Appendix K for an outline of the projected publication. Copies of this publication will be forwarded to the Bureau of Research after completion.)

C. Staff study of systems approaches including PERT.

D. Planning of a state program in the rational development of curriculum and instruction with personnel from Bucknell University and the Pennsylvania Department of Public Instruction.

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E. **Preparation of the final report on "Innovation in Planning School Curricula."**

F. **Staff assignments, speeches, conferences, and publications related to planning the program.**

1. Consultative Services

   The director of CSI served as consultant to the following agencies and groups during this period: Washington Internships in Education; West Virginia University, School of Nursing; Detroit Public Schools and the National Association of Educational Broadcasters--ITI Project; Kettering Foundation; Breese Foundation; Representative of the Hawaii Education Association; Head Start Program; State Department Schools; American Association of Health, Physical Education, and Recreation; Ford Foundation, Coordinator of Art, D. C. Public Schools; Regional Laboratory, Bucknell University; Institute of Advanced Study in the Arts and Humanities for Secondary School Teachers, University of Southern California.

   The associate director and other CSI staff offered consultative services to: MDINN, Title III Project; Monterey County Schools; West Virginia University, School of Nursing; Educators from India; Graduate Seminar in Secondary Education, Stanford University; NDEA Institute in Reading, Tufts University; National Advisory Board, National Center for Schools and College Television, Bloomington, Indiana.

2. Speeches, Papers, and Publications

   Among the groups the director has addressed during this period are: Curriculum Conference for Leaders in Nursing Education, West Virginia University; National Association of Secretaries of State Teachers Associations; National Association of Educational Secretaries; Teacher
Education and Professional Standards; an assembly at the NEA Annual Convention; Teachers College Conference of Elementary and Secondary Principals; and four hundred educators at Georgetown University. He also narrated a film on mathematics in cooperation with the National Council of Teachers of Mathematics.

The associate director spoke to: The Curriculum Planning and Implementation Workshop, School of Nursing, West Virginia University; the National Invitational Conference on Systems Approaches to Curriculum and Instruction in the Open Door College at UCLA; Seminar on Learning and Televised Instruction, Center for Advanced Study in the Behavioral Sciences, Palo Alto, California; and the student body at the University of Connecticut.

The project coordinator led a taped discussion on Sex Differences to be published in The Elementary Principal in the fall.

The following papers were prepared by the CSI staff:

"Rational Decision Making at the Institutional Level"

"Planning and Organizing for Teaching"

"Forecast of Curriculum and Instruction: Detroit Public Schools"

Book Review for DAVI Journal of Jerome Bruner's Toward a Theory of Instruction

Commentary on Earl C. Kelley's "The Education of the Disadvantaged" for Michigan State University

3. Workshops, Conferences, and Conventions

   CSI staff led or chaired the following
workshops and conferences: Workshop for Beginning Elementary School Principals, University of North Carolina; Conference on Development of Reading and Social Studies Books for the Disadvantaged, USOE; Seminar on Organizational Theory with staff from Brookings Institution; Meetings with representatives from CSI California-South Team, CSI Pennsylvania Team, CSI New York Team, and CSI New England Team; Workshop on Individualizing Instruction, Worcester Public Schools; and Planning Conference for the Third Annual International Curriculum Conference.

Among the meetings attended by CSI staff were: National Foreign Policies Conference for Educators, State Department; "Schools for Tomorrow" Task Force Meetings; Second International Conference of American Management Association entitled "Educational Realities;" NEA Annual Convention; and Seminar on Learning and Televised Instruction, Center for Advanced Study in the Behavioral Sciences, Palo Alto, California.

RESULTS

The results of the year's research are mainly to be found in a series of documents which are the tangible products of the activities described in the section on methodology. For the sake of clarity, the major objectives of the year's study (slightly reorganized) serve as the organizing elements for clusters of papers briefly described in the following section.

Results of Objective I: Development of a Rationale for Planning School Curricula and Plans for Systematic Field-Testing of the Rationale.

A. A major undertaking of the year was the development of a research design entitled "Studies in the Rational Planning of Curriculum and Instruction." (See Appendix E) This document includes a statement of the problem to be
researched; the major goals and specific objectives of the projected study; a rationale for planning curriculum and instruction; related activities; and the use to be made of findings. The design suggests setting up the machinery (in this case a consortium consisting of CSI, its network of consultants, four pilot school systems, and a group of observers from similar settings) to help bridge the gap between theory and school practice. It outlines the research, developmental, testing, demonstration, and dissemination activities to be undertaken by each member of the consortium. It relates these activities to a comprehensive systems approach to planning and to field-testing.

B. As a background for the year's study and as a tool for the research design, a selected bibliography on curriculum theory and the dynamics of planned change was prepared. (See Appendix A)

C. Again as a tool for the proposed studies in rational planning, preliminary descriptions of selected models of instruction were developed. These descriptions outline a series of alternative instructional rationales and procedures for those schools and teachers wishing to make systematic studies of teaching-learning strategies.

**Results of Objective II: Involvement of Outstanding Theorists on Problems of Curriculum Planning and Change**

A. Position papers on the processes and substantive necessities of curriculum theory and change were prepared by scholars for the Airlie House Seminar in October 1965. These papers are listed in the methods section and are included as Appendix C of this report. A list of the scholars and schoolmen participating in the Airlie House Seminar is attached as Appendix D.

B. Selected members of the CSI Consultant Teams assisted with the theoretical planning of the research design. All Consultant Team members were kept informed of the development of the study by letter, by team meetings with CSI staff, and at one meeting of all team
leaders. For a roster and map of the CSI Consultant Teams, see Appendix F.

Results of Objective III: Involvement of Selected Schools and School Systems in Planning

A. Considerable joint planning of research and field-testing activities by selected school systems may be found in the Activities Section--Sites One and Two--"Studies in the Rational Planning of Curriculum and Instruction." (Appendix E)

B. A tangible result of the involvement of the Montgomery County Public Schools is the document called "A Sample of Required Research Activities," Appendix H. The directors of research, curriculum, and appraisal from that school system developed this sample.

C. As a result of the involvement of the Montgomery County and the Philadelphia Public Schools in this study, two profiles of these school systems were prepared. (See Appendix G for these descriptions)

D. During the course of the year, CSI has been in active correspondence with thirty to forty administrators from interested school sites. A copy of the last memorandum to these people dated June 1, 1966 is attached as Appendix L.

Results of Objective IV: Utilization of NEA Network for Dissemination

A. Early in the life of the project a news release which described "Innovation in Planning School Curricula" was disseminated. A copy of this release is attached as Appendix M. The School Administrator, official organ of the American Association of School Administrators, and The National Elementary Principal, journal of the Department of Elementary School Principals, later published information about the project.

B. During the course of the year CSI staff did a great deal of field work including numerous speeches and papers prepared and made, conferences attended, and
consultative services given to schools. These are detailed in the section on method and summarized on page 6 of the CSI Annual Report (Appendix I).

C. Further development of the CSI Consultant Teams and clarification of their roles in this project greatly improved our dissemination network. The most recent statement of the services offered by the teams is included as Appendix J.

D. Growing out of the Airlie House Seminar and out of the year's activities and deliberations is a projected CSI-NEA publication to be entitled Essays on the Rational Planning of Curriculum and Instruction. Publication is expected in the fall. An outline of the projected volume is attached as Appendix K.

DISCUSSION

By and large, CSI has fulfilled the objectives it set for itself when it undertook the year's contract with USOE under the title of "Innovation in Planning School Curricula." A brief glance at the documents listed under Results in the previous section indicates the extent to which the major objectives, both literally and figuratively, directed the activities of the project. During the course of the year, however, we were able to adapt and modify the original plans. These problems and departures were detailed in the quarterly technical progress reports and are here repeated for the record. This section also analyzes the results in the light of the latest review of research in the field.

Problems and Departures

After assessing the advice received both at the Airlie House Conference in early October and at the CSI Advisory Committee meeting in late October, the CSI staff proceeded to refine and further develop the existing theories for rational curriculum planning in more detail than was originally anticipated. Another recurring theme at both meetings was the need to study total systems rather than fragmented operations within systems.
Heeding the advice of our counselors, CSI decided to move gradually into involvement of school systems. This decision, plus the hope that the Center could be ready to start on a major project in September 1966, meant a modification of the anticipated schedule for the year in the following ways:

A. Concentration first upon developing the research design for a long-range program.

B. Total involvement of two school systems in this early planning period, preliminary discussions with several others, anticipating identification of logical extensions of the program in other sites in succeeding years.

C. Major editing of position papers for publication and the writing of original materials on curriculum design by the CSI staff during the third and fourth quarters of the year.

The shifts in scheduling and emphases noted above assumed that the year 1966-1967 would be a pilot year for the project and that major school system involvement would be postponed until 1967 and thereafter.

As the design for long-term research took shape, the activities of the CSI network of consultant teams seemed more intimately related to the possible new program than we originally anticipated.

Completion of an instrument for data collection from the schools became relatively unimportant since the Montgomery County and Philadelphia profiles provided prototypes for other possible sites.

It should also be noted that the development of criteria for judging the rational planning of curriculum and instruction, although begun in the Airlie House Papers, is now seen as a very complex assignment—to be built as one product of a projected consortium.

In summary, the main modifications of the plan as originally conceived, consist in: (1) reorganization
of the schedule for the year's work; (2) involvement of fewer school systems in greater depth; (3) addition of observer-participants from other schools to add breadth to later research; and (4) longer term planning because of the complexity of the problem.

Analysis

As the CSI staff reviews the year's work under this USOE contract, we have been heartened by the continuing support to be found in the literature for the general direction of our research. This support and documentation of need relates to the central thrust of the project, to the research design developed this year for future projects, and to the papers and publications growing out of the year's research. The most recent manifestation of this support may be found in the June 1966 issue of the Review of Educational Research.

The following selected quotations from the Review of Educational Research document the major concerns and problems we have been studying this year:

On the State of the Conceptual Field:

Theory has not played a decisive role in influencing curriculum change. The reasons have not been difficult to find . . . . Curriculum specialists found clues in other areas of educational research, but a comprehensive theoretical structure was conspicuously lacking.1

The curriculum reform movement has stimulated attempts at curriculum theory building. Efforts to apply theoretical constructs to a sphere so vast and complex as curriculum have not, in the

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main, been fruitful in producing testable hypotheses.¹

Curriculum theorists are expressing deep concern over the tendency to focus on the discrete disciplines without dealing with their interrelationships in the development of the total curriculum.²

On Theory, Research, and Practice

Passow (1964) pointed to an abyss between theoretical research and its applications to classroom practice in a period of massive social change. He raised the question as to whether the curriculum theory builder and researcher can provide bases for better decision making in the educational community. Tyler (1964) recommended that many of the decisions concerning curriculum content be integrated as operational hypotheses . . . . Mackenzie (1964) stressed the need for more systematics analyses of the determinants of curricular change.³

Tremendous effort has been expended in the publication of outstanding curricular documents, but the gap between theory and practice in schools is almost unbelievably great.⁴

Glaser (1964) called for the establishment of research-based technologically oriented centers for the advancement of educational practice. Without someone to work specifically on the problem of implementation, according to Glaser, there seems "little reason to expect direct transfer of laboratory findings and direct application of theoretical finding to educational practice."⁵

¹Ibid., p. 369.
²Ibid., p. 370.
³Ibid., p. 369.
⁴Ibid., p. 380.
⁵Ibid., p. 386.
On Systems Approaches

The systems concept, still in its infancy, cannot be implemented by unsophisticated teachers and administrators.\(^1\)

Macdonald (1965) offered a systems analysis in drawing a distinction between curriculum and instruction. According to Macdonald, curriculum is the context in which plans are produced for further action, while instruction is the context in which plans are put into action.\(^2\)

One of the government's greatest contributions to education may prove to be its Curriculum Research and Development Program . . . . It emphasized a method called program research, a real breakthrough in curricular research which went far beyond the confines of the typical project. Program research meant "pre-planned, continuous attention, through all steps in the research process until solutions were found and translated into practice." It involved basic research, curriculum development, and field testing by teams of scholars, research scientists, teachers, and school administrators.\(^3\)

The centrality of the study of objectives has always been emphasized in curriculum planning and development . . . . Present interest in the reworking and integration of objectives into curriculum work stems from the realization that the global statements which previously were acceptable must now be expressed in greater detail and specificity before they can be treated as independent variables in a research program.\(^4\)

\(^1\)Ibid., p. 378.

\(^2\)Ibid., p. 365.

\(^3\)Ibid., p. 347.

\(^4\)Ibid., p. 389.
The analysis by Guba (1965), differentiating between experimental research and what he designates as "aexperimental" research (field study), is quite appropriate to curriculum research. Each method provides unique data and complements the other. In the experimental method the investigator purposefully examines or controls only a limited number of variables; this deliberate focusing makes his inquiry molecular in scope. The aexperimental study is molar in its orientation, since it must necessarily deal with all the variables occurring in the real-life situation. The natural context in which aexperimental research is carried out offers the possibility of making more closely relevant interpretations of the effects of educational change.1

If these samples from the latest review of curriculum research have any validity, then this year's work at CSI takes a first step toward the needed full-scale, long-term attack on a very pressing and complex problem. In short, the systematic planning of school curricula is indeed innovative, particularly if it is built upon any kind of a comprehensive conceptual scheme. The year's work has dealt with problems and proposed operational solutions in all the main areas outlined above. As a result, plans for full-scale future research, entitled "Studies in the Rational Planning of Curriculum and Instruction," take the form of "program research" and include provisions for "basic research, curriculum development, field testing and dissemination by teams of scholars, research scientists, teachers and school administrators" in the context of a proposed educational consortium.

1Ibid., p. 393.
CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

There were two major substantive directions for this year's research as it was originally conceived. The first was to add to the literature on the rational planning of school curricula by providing principles and substantive guidelines on the subject. The second was to develop, in collaboration with selected schools and school systems, research designs for field-testing these principles and guidelines. Both tasks were seen as the beginning stage of a long-term field study.

The year's work has underlined our earlier understanding of the problem. We are more and more convinced not only of the complexity of the job of closing the gap between theory and practice in this area, but also of its importance. If the basic operational task ahead is not faced squarely, returns on this year's investment of time, effort, and money will be minimal.

The research design outlines ways in which the ideas and principles we have organized and developed can be systematically field-tested. In our opinion, the total task must be attacked sooner or later in all its size and complexity. On the other hand, the availability of funds and personnel may necessitate modifications in the mounting of the different research components. In this event, prospective researchers should remember that the heart of the projected program is the development of a productive relationship between a small idea-generating and research-oriented center and a live school system. Programs in other schools and school systems may be added later. Projects like the teams of observers and large-scale dissemination may also be phased in at intervals differing from those suggested in the research design.

Thus the program research package we have outlined may be divided up in several ways without jeopardizing its long-range goals. The central thrust of the program can, however, be mutilated by a general watering down across the board. The resources planned for each component are modest at best. And so, while each piece, as designed, adds strength to the whole, the pieces are better dropped entirely than half-way mounted. We, therefore, recommend that:
1. A three-to-five-year field study in the rational planning of curriculum and instruction pick up where this year's research left off.

2. The projected field study put the research design developed this year into operation.

3. Modifications in the phasing of the research program are possible, providing that:
   
   a. the core of the enterprise remain the combined programs of CSI and of the school system with five years of experience in rational planning (Montgomery County Public Schools, Rockville, Maryland).

   b. the quality of the resources outlined for separate components stays intact.

Finally, the systematic social planning suggested by our consultants and required by our research design is controversial. Institutional engineering is a philosophical anathema to some scholars and schoolmen. We contend, however, that changes in curriculum and instruction are inevitable for the nation's schools in the years ahead. We assume that, if the schools do not learn to control these changes, then the schools will be controlled by the changes. Our research design, if pursued to its natural conclusion, could assist in the validation of this provocative hypothesis.
SUMMARY

This final report details the research done from September, 1965 through August, 1966 by the staff of the Center for the Study of Instruction (CSI), National Education Association, under the title "Innovation in the Planning of School Curricula." The year's research was addressed basically toward narrowing the gap between theory and school practice with regard to the rational planning of curricula. It expected to lay the groundwork for a long-range effort to aid the schools adapt and use theories of rational curriculum planning. More specifically, the project proposed:

1. To refine a rationale for the comprehensive planning of school curricula and to develop plans for the systematic field-testing of this rationale.

2. To engage outstanding theorists in the problems of curriculum planning and change.

3. To involve selected schools and school systems in planning.

4. To use the NEA network for dissemination.

The methods employed during the course of the year included: (1) the commissioning of position papers by experts in the fields of curriculum planning and change; (2) the holding of a major seminar at Airlie House, Warrenton, Virginia; (3) review of the research literature and preparation of a bibliography; (4) consultation with selected scholars and schoolmen, and with the CSI Advisory Committee; (5) visitation and joint planning with selected school systems and school officials; (6) preparation of designs for long-term research; (7) reorganization, expansion, and utilization of the CSI network of consultant teams; (8) staff participation in national and regional meetings related to project purposes; (9) staff preparation and delivery of related reports, speeches, and papers; (10) staff consultative services to schools, school systems, and other educational organizations at workshops and conferences; (11) editing and publishing a volume entitled Essays on the Rational Planning of Curriculum and Instruction; (12) preparation of school system profiles, correspondence with schools and school systems,
and preparation and release of appropriate publicity.

The results of the year's research are mainly to be found in a series of documents. These documents group themselves into two large categories, namely, those which add to the literature on rational planning and those which contribute to a research design for the field-testing of rational planning. The following documents may be listed in the first category: position papers on the processes and substantive necessities of curriculum theory and change--the Airlie House Papers; a selected bibliography on curriculum theory and the dynamics of planned change; a descriptive outline of a series of alternative instructional rationales for field-testing; and a volume entitled Essays on the Rational Planning of Curriculum and Instruction, to be published in the fall. In the research design category are: a fully developed research design entitled "Studies in the Rational Planning of Curriculum and Instruction;" profiles of two public school systems--Montgomery County, Maryland, and Philadelphia, Pennsylvania; "A Sample of Required Research Activities" developed in collaboration with the staff in the Montgomery County Public Schools; a list of interested school sites; a roster of informed and interested consultants--the CSI Consultant Teams; and information about the project in the form of press releases, speeches, and reports.

The conclusions of the year's work highlight the observation that the systematic planning of school curricula is indeed innovative, particularly if it is built upon any kind of comprehensive conceptual scheme. This observation plus the crying need for the development and field-testing of manageable theoretical frameworks are documented by the research literature. Such field study is complex and difficult. But the stakes are high. Either the schools learn to control the rapid curricular and institutional changes which are an inevitable thrust of the future, or the schools will be controlled by such changes.
REFERENCES


The Scholars Look at the Schools.


APPENDICES

Appendices are under separate cover and accompany this report. They are:

SELECTED BIBLIOGRAPHY: CURRICULUM THEORY AND THE DYNAMICS OF PLANNED CHANGE

INSTRUCTIONAL MODELS

AIRLIE HOUSE CONFERENCE PAPERS

AIRLIE HOUSE SEMINAR PARTICIPANTS

STUDIES IN THE RATIONAL PLANNING OF CURRICULUM AND INSTRUCTION: A DESIGN FOR RESEARCH

ROSTER: MAP OF CONSULTANT TEAMS

PROFILES OF THE SCHOOL SYSTEMS

A SAMPLE OF REQUIRED RESEARCH ACTIVITIES

CSI ANNUAL REPORT

THE CONSULTANT TEAM NETWORK

OUTLINE OF PROJECTED PUBLICATION

LETTER TO INTERESTED SCHOOLS ABOUT CSI PROJECT

NEWS RELEASE
This final report details the research done from September 1965 through August 1966 by the staff of the Center for the Study of Instruction (CSI), NEA, under the title "Innovation in the Planning of School Curricula." The year's research was addressed basically toward narrowing the gap between theory and school practice with regard to the rational planning of curricula. It laid the foundation for a long-range operational research study of rational planning of curriculum and instruction in selected school systems. More specifically, the project (1) refined a rationale for the comprehensive planning of curriculum and instruction and developed plans for the systematic field-testing of the rationale; (2) engaged outstanding theorists in the problems of curriculum planning and change; (3) involved selected school systems in planning; and (4) used the NEA network for dissemination.

The report includes a statement of the problem; the methods employed by the researchers; the results; discussion of the conclusions, implications, and recommendations following from the research; a summary of the study; and pertinent appendices related to the project. Major appendices are: (1) a bibliography dealing with curriculum theory and the dynamics of planned change; (2) eight position papers on the substance and processes of curriculum planning prepared by selected scholars; and (3) a research design called "Studies in the Rational Planning of Curriculum and Instruction." The study concludes with the observation that the systematic planning of school curriculum is indeed innovative, particularly if it is built upon any kind of comprehensive conceptual scheme.
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16. RETRIEVAL TERMS (Continued)