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ABSTRACT

The Multiple Alternative Program (MAP) is a competency based, individualized program that focuses on the in-service education of elementary school teachers. Developed in cooperation with the school systems of Norwalk and Bridgeport, Connecticut, MAP addresses itself to the achievement of those teaching competencies that have been identified as high priority needs by individual teachers within the context of institutional goals. Based on the open education approach to staff development, MAP consists of four phases: a) assessment, b) planning, c) training, d) reassessment and retraining. Opportunities are provided for two "innovation teams," consisting of teachers and administrators from two urban elementary schools, to focus on training activities related to their institutional priorities. Additional students from the ongoing graduate program participate in MAP as individuals. The success of the program as a model for school/university cooperation in in-service education has led to the development of a comprehensive graduate degree program based on the open education approach.
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College of Education
University of Bridgeport

Comprehensive
Explanation and Analysis
of the
Multiple Alternative Program (MAP)

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Preface

The Multiple Alternative Program (MAP) was developed to respond to the expressed needs of teachers, supervisors, and administrators in the Greater Bridgeport area for assistance and support in attempting to effectively upgrade curriculum and instruction in the region's schools.

A series of meetings was held during the school year with superintendents, principals, teachers, and graduate education students representing school systems in Bridgeport, Norwalk, Stamford and Redding. It was found that a competency based in-service education program was a high priority item in the plans of the school systems. It was also agreed that the University of Bridgeport's Multiple Alternative Program (MAP) was an effective vehicle to meet such demands. The program was implemented on a limited basis during the school year 1971-1972.

Evidence from the initial year's work in the MAP program lent belief to the concept that an individualized, competency based program could be successful. The data collected showed that teachers' attitudes changed significantly when exposed to the MAP program. Further, the data suggested that a more comprehensive needs assessment procedure should be developed. To accomplish this, an additional mode of selection of participants was included for the second phase of the project (1972-1973). This was the identification of Innovation Teams from two of the cooperating school systems in addition to self selected participants from the regional schools. Each innovation team consisted of a principal and four teachers from a particular school. The team worked on site with college personnel in clinical experiences as well as at the University. The goal for the Innovation Teams was the strengthening of individual teaching competencies.

Introduction

Statement of the Problem:

The necessity for programs designed to meet the diverse needs of individual teachers who must possess particular competencies to meet the educational needs of their students gave rise to the continuance of the MAP program.

MAP responded to the problem of developing and evaluating teacher competency by offering an alternative educational experience in which the content and learning processes utilized the basic precepts of individualized competency-based education. The basic concepts of individual need assessment(diagnosis) and alternative learning strategies designed to facilitate teacher growth (prescription) were coupled with mutually negotiated reporting (evaluation) for each student. Participants were thereby given the opportunity to realize their individual goals for professional growth within the context of institutional needs.

Specifying and Analyzing Objectives:

The specific teaching competencies to be developed through MAP could not be identified in advance, since teaching competency development as viewed by MAP takes place in the context of individualized need assessment (diagnosis), personalized programming for professional growth (prescription), and performance evaluation. This process takes into account the spectrum of competencies which individual teachers already possess and those which must be developed to facilitate professional growth and meet institutional needs. In short, MAP provided the means for such achievement. The involvement of Innovation Team members, other school personnel, members of the community, and University staff on a cooperative basis enhanced the possibility for diagnosis, prescription, and evaluation.

Specific examples of the types of competencies which MAP developed are:

1. Selecting and employing appropriate diagnostic procedures for individual instruction.
2. Developing competency in the management of individual modes of leading instruction.
3. Establishing skill in the prescriptive aspects based on need assessment of children.
4. Incorporating specific techniques through which the suburban oriented teacher is capable of developing empathy with the urban, minority child.
5. Identifying skill in planning and arranging the school environment to encourage individual learning.
6. Identifying various methods for evaluating the growth of

their individual students. Tapes, dramatic readings or presentations, televisions and multi-media formats will be some of the various modes of evaluation considered by participants.

7. Researching the process of open education and begin to implement it in their classroom building.
8. Utilizing the process of system analysis in the construction and evaluation of instructional units.

In addition to the development and evaluation of specific teaching competencies and professional growth competencies on the part of innovative team members, a third significant objective of MAP was the refinement of the MAP model for individualized teacher education. Significant objectives of the refinement process included:

- a. Focusing on the innovative team as the basic unit for educational change, and as a vehicle for peer teacher education within the institutional context.
- b. Developing resource materials and procedures for need assessment, individualized teacher education, and performance evaluation.
- c. Strengthening of the school-university-community partnership in the process of competency based teacher education and evaluation.

In stressing individual instruction competencies the program addressed itself to the most "dominant" feature of elementary education today. As the Fairfield County region is in fact utilizing numerous forms of individual instruction in its schools the need for programs to accommodate teachers is imperative. When coupled with the State's new trends in performance or competency based certification a program whose basic objectives

are at the heart of individualized competency based education is very timely. MAP's objectives were in concert with new directions in education.

Lastly, and most significantly, the objectives already listed were mutually developed by teachers, administrators, graduate education students and college faculty. The objectives therefore reflect the real needs of area teachers.

The clinical aspect of MAP is regarded as an integral part of the total process of need assessment, individualized professional education, and evaluation. Beginning with the initiation of the two innovation teams the clinical experiences focused on the problems faced by elementary teachers and principals. Each team worked on their own terms and turf with MAP faculty members. The problems to which each team addressed itself stemmed from actual situations arising from team members work with children. Competencies were defined and completed in terms of on-the-job experiences. In addition to on-site work the resources of the University were available to the team members. These included research facilities, computer time, curriculum library materials and the like.

Refining the Instructional System:

This proposal is concerned with the refinement and further development of teacher-centered, multiple-alternative professional experience for the purpose of developing and strengthening individual teaching competencies. Strong emphasis is placed on the competencies required for the planning and implementation of individualized instruction.

Both the content and the learning process of the program focused on individualized teaching and learning, and include: (1) the cooperative identification of each participant's individual goals, formulated as "competencies to be achieved", (2) the creation of a variety of alternative approaches to the achievement of these competencies, (3) individual participation in selected alternative approaches, and (4) cooperative evaluation of individual student achievement by faculty members and participants.

Two innovation Teams were selected for participation in MAP by the school systems of Bridgeport and Norwalk. Each team was chosen by their respective system, and consisted of a building administrator and four or five teachers interested in working together to develop new competencies and new educational directions within the individual school.

The teams selected for participation in the MAP Program met with faculty members involved in the project to identify specific competencies which they wished to achieve in order to individualize instruction more effectively. During the early part of the project, major emphasis was given to diagnosis and counseling so that each team member was able to identify with accuracy his personal objectives. During this process, each team member was encouraged to examine his own teaching competencies critically, and to discuss them with his supervisor, principal, advisor and others such as community members where appropriate, in order to view

himself as objectively as possible. At the conclusion of this process, an individualized program for competence achievement was instituted for each team member.

Three major types of alternatives for competency achievement were established, which permitted students considerable flexibility in meeting their own needs.

1. Independent Study:

Each participant will pursue areas of need and/or interest on an independent basis, utilizing a wide variety of approaches, techniques and resources. This aspect of the program goes far beyond the normal type of independent study. Credit might be given, for example, for the completion of activities such as the following:

- a. Action research
- b. Travel and observation
- c. Participant observation
- d. Curriculum development
- e. Interview
- f. Courses and workshops taken elsewhere
- g. Attendance at professional meetings
- h. Development of new instructional materials
- i. Other approaches which a student may justify

2. "Hands On" Workshops

A series of "Hands On" Workshops were offered during the academic year, with the topics to be selected cooperatively by faculty and participants. These Workshops focused on specific skills, approaches to instruction, etc. These Workshops were regarded as "translation sessions", concerned with helping the individual to translate ideas

into reality for himself.

3. Clinical Experiences

Although clinical experiences have not traditionally been part of the graduate program for provisionally certified teachers, MAP participants were required to take part in selected clinical experiences, either on-campus or in the schools, to help them perfect skills, develop teaching styles, etc. Examples of such clinical experiences included:

- a. Micro-teaching.
- b. Interaction analysis.
- c. Utilizing learning centers and laboratories.
- d. Learning to implement the open classroom approach.
- e. Clinical and reflective analysis of one's own teaching in his own class or school.

Measuring Attainment of Objectives

Evaluation was done on an individual basis. The primary criterion for evaluation was the participant's ability to present evidence that he had accomplished the goals which he had set out to achieve.

It should be noted that the MAP Program contained no courses in the traditional sense. However, the objectives of such courses, (tailored to the individual needs of the students), were met through the Multiple Alternative Program. While the content of the program emphasized the leading edge of educational thinking and practice, through its focus on individualized learning, and meeting the needs of today's students; the achievement of goals through a variety of experiences in which the student chose his own individual needs were the most radical departure from traditional methods. The overriding concern of the program was that the teacher "make himself very necessary to his students, school, and community" through MAP. The fundamental premise is: MAP is a model which makes "learning how to learn" and therefore, learning how to teach, process as well as content outcomes.

1. Feasibility

Feasibility was a key facet of this project. Since it was hoped that, if successful, it could become a model for elementary teacher preparation at the University of Bridgeport. At the present time, forty-four graduate students have already completed a year in the program, and the University has given administrative approval and support to the program as an important experiment in teacher education. Participant response, as documented in the final report of 1971-1972, has been positive.

2. Communication

Close communication with participants has been a characteristic of the project from its inception. Suggestions and reactions from hundreds were considered. It is planned to maintain continuous dialogue with participants throughout the program. It is further anticipated that as the program gets underway, close ties will be developed with building administrators in school systems where clinical activities and independent study are to take place.

3. Replicability

Replicability was a major concern, since the program, if successful, must be capable of running within the acceptable University and public school economic parameters. Therefore, financial support above and beyond normal levels has been kept to a minimum, and where sought, has been intended to finance "start-up", planning and research and development expenses.

4. Articulation

The clinical experiences for participants were based upon their individual goals and needs, as well as those of the school, and in most instances took place in the participants own school. Since clinical experiences are not normally part of the graduate program, in this respect, MAP must be regarded as innovative. A key element in the program was to help participants attain closure in teaching behavior by relating discussion sessions, workshops and independent study closely to clinical experiences,

5. Innovation

The program was regarded as innovative since it attempted to develop a model which will radically restructure the University role in

teacher education. It substituted a variety of experiences for courses, moved faculty members out into the schools in a clinical role, used the resources and personnel of the schools to make concrete contributions to the program, placed more responsibility upon students for their own education, and encouraged participants to help teach each other through involvement as a team. Most important of all, it attempted to teach by model, rather than simply by precept.

6. Disadvantaged Schools

Approximately 80% of the participants involved taught in the urban centers of Bridgeport and Norwalk.

7. Focus on the Training of Teachers

MAP provided valuable in-service training for faculty members, since it required faculty members to depart significantly from their present roles of traditional classroom teaching. Clinical settings, new teaching behavior etc., resulted in a new, fresh professional growth for faculty members.

Role of Institution of Higher Education

The University of Bridgeport's College of Education provided a significant portion of both human and physical resources necessary to make the program successful,

The role of the faculty was to assist the innovation teams in identifying, attaining and evaluating teacher competencies. The mutual arrangement between school systems and University allowed college faculty to be actively involved in the school providing clinical assistance to the teams.

The University made available a variety of resources and educational experiences including library facilities, computer terminals and time,

the MAP Teachers' Center, research facilities, evaluation help and dissemination facilities. Additionally, the University provided personnel in specialized areas of concern to innovation teams. Examples of these included various experts in the sciences, and psychology. Finally, team members were able to take advantage of the complete calendar of MAP workshops and interaction sessions.

Role of the Local Board of Education

The two local boards of education, the school systems cooperating in the program developed and initiated the project. School personnel, including both administrators and teachers, worked cooperatively with University faculty in assessing the needs of their schools and individuals in the program. Local systems were expected to supply the necessary on-site space to carry out the program. Additionally, local systems were from time to time expected to release personnel from their regular responsibilities to participate in a variety of off-campus activities, such as workshops, visitations, interaction sessions and similar activities.

Financial responsibilities of the local board are explained in the rear section. Basically, their responsibility included sharing in the tuition costs for students and occasionally providing paid substitutes for teachers while participating in workshops and similar activities.

The Function of Target Schools

In conjunction with school superintendents of cooperating school districts and the University staff, personnel from specific target schools will be identified as innovation teams.

Target schools were selected when the district administration, including local school principals, and teachers, and the University staff assessed the needs of the school district and the individual schools. For example,

a specific school might for many years have had a relatively homogeneous school population and the teachers might have organized their classes over the years in a homogeneous manner. However, with shifting and integration of the pupil population, teachers in this school require retraining to effectively teach a heterogeneous population,

The local school personnel and the University staff identified within a given school, four teachers, who with the school principal made up the innovation teams. It was the function of the innovation team and the University staff to explicitly identify the major goals of the team within the school. The University staff assisted the local team in identifying and clarifying their major goals.

The University staff and the innovation team together developed specific performance objectives in accordance with the team's major goals.

The University staff and the innovation team developed an instructional system that facilitated the achievement of performance objectives.

The team implemented the instructional system that they had cooperatively developed with the University staff.

The team and the University of Bridgeport staff assessed and evaluated the instructional system in terms of the specific and behavioral objectives which they had developed,

Personnel - Professional

The professional personnel who were responsible for the planning, administration and implementation of this project were all members of the University of Bridgeport, College of Education staff. Each of them lectured, researched and supervised clinical experience, as well as coordinated all of the special activities in the program. Each has had extensive experience in college teaching, public school teaching and supervisory experience at both levels.

The professional staff included:

Name: Dr. Robert D. Kranyik, Program Director
Position: Teacher, Researcher
Title: Charles Dana Professor of Elementary Education
Experience: Public School Teacher and Administrator
College Associate Dean
Acting Dean
Consultant to Educational Development Center
Consultant of Center for Higher Education
Author of Books and Articles in Elementary and
Teacher Education
Responsibility: Coordinator of MAP Programs, Workshop Leader,
Supervisor of Clinical Experience, Advisor
Time: 33%

Name: Dr. Joseph W. Keilty
Position: Teacher
Title: Associate Professor
Experience: Public School Teacher, eight years
Assistant Principal, one year
Consultant to Numerous Educational Agencies
Responsibility: Coordinator of MAP Program, Workshop Leader,
Supervisor of Clinical Experience, Advisor
Time: 33%

Name: Dr. E. Wesley Menzel
Position: Teacher
Title: Associate Professor of Education
Experience: Fifteen years of teaching and administration
6 years Public School
4 years Science Curriculum Coordinator
2 years Teaching Fellowship - University
3 years Full-time University Teaching
Responsibility: Coordinator of MAP Programs, Workshop Leader,
Supervisor of Clinical Experience, Advisor
Time: 33%

Name: Dr. Harry Seymour
Position: Teacher
Title: Professor of Education
Experience: Elementary Teacher Principal, 3 years
Eleven years College Teaching
Four years Department Chairman, College of Education
Consultant to numerous Educational Agencies
Responsibility: Coordinator of MAP Programs, Workshop Leader,
Supervisor of Clinical Experience, Advisor
Time: 33%

Name: Dr. John Kelly
Position: Acting Chairman of Elementary Education Department
Title: Assistant Professor
Experience: Public School Teacher, 9 years
Assistant Principal, 2 years
College Teaching, 4 years
Author of Elementary Social Studies Materials
Consultant and Evaluator of Public School and
State Programs
Responsibility: Coordinator of MAP Programs, Workshop Leader,
Supervisor of Clinical Experience, Advisor
Time: 33%

Name: Dr. John Greene
Position: Teacher
Title: Assistant Professor of Education
Experience: Public School Teacher, 5 years
College Teaching, 3 years
Consultant, Author and Researcher
Responsibility: Coordinator of MAP Programs, Workshop Leader,
Supervisor of Clinical Experience, Advisor
Time: 33%

Evaluation Procedures:

Assuming attitudinal changes must precede effective learning, the initial phase of the evaluation focused on the attitudinal changes of the innovation team members. As soon as the school sites were selected and before the actual team members were selected, the Education Scale VII (Kerlinger, 1968) and the Attitude Toward Higher Education Scale (Keilty and Greene, 1971) were to be administered to all teachers and supervisors at the designed schools.

Education Scale VII is a Likert-type scale which measures two broad dimensions of attitudes toward education: progressivism and traditionalism. This instrument contains 30 items and has been found to be factorially valid and reliable (Kerlinger, 1968). Although the author suggests converting the "-3 to +3" seven point interval scale to a range of 1 to 7 during the scoring procedures, such a transformation was not employed in this study. Consequently, the resulting subject scores for progressivism and traditionalism represent

the average of 15 item scores each on a scale of -3 to +3.

The Attitudes Toward Higher Education Scale was developed specifically for the previous MAP project. The developmental form contained a total of 50 items from which 25 statistically sound items were generated. This scale produces scores which range from 1 (negative attitude) to 5 (positive attitude) and represent the mean item score on a 5 point Likert-type scale. Both positive and negative statements are included in an effort to minimize response set. Recent research efforts have found the scale to be reliable and valid.

The supervisors at each school were assessed by two leadership scales. The first scale, the Managerial Grid, is a self-analysis instrument designed to identify leadership style. The second scale, the Leader Behavior Description Questionnaire, describes the behavior of the supervisor and is to be completed by his teachers.

Several innovative procedures were employed to analyze the import of the innovation team itself. Among these, none is more important than the criteria referenced evaluation form which was developed cooperatively by each team. The basis for such a form was the performance criteria from the stated competencies of each of the teams.

Individual evaluation of the performance members of each of the innovation teams followed a format which replicated that to be followed by teams. Based on individually negotiated competencies a rating scale was developed for each team. The team itself developed the scale with guidance from the college coordinator and the program evaluator. Performance criteria was stated in behavioral terms. The scales were taken by teachers, children, administrators, college coordinators and teaching peers where appropriate. If a teacher produced a set of materials for her competency, the procedure described above would be employed to evaluate their effectiveness.

Additionally, interaction analysis was employed at appropriate intervals to assess changes in teacher behavior. University computer services scored and printed out data resulting from the use of interaction techniques. Flander's Interaction Analysis materials were used for this purpose.

An analysis of the Attitudes Toward Higher Education Scale results described earlier will provide additional information relative to the import of the university on the local education agency.

Implications for the Improvement of Teacher Education in Connecticut

The project was designed to further refine a concept of individualized, competency-based teacher education which has been found to have a significantly positive effect upon the attitudes of in-service teachers toward higher education. Such further refinement was expected to lead to a more effective individualized program which can become a very useful approach to the achievement of performance evaluation and its attendant individualized programming for professional growth.

Further, the innovation team approach recognized the critical nature of the individual school as the basic unit for change in education, by focusing its energies on a closely knit, volunteer group which consisted of a building administrator and four teachers. It is anticipated that such a group, by working together in the processes of common and individual need assessment, professional growth experiences, and performance evaluation, with assistance and support from University faculty members, consultant staff, and members of the community, reflected significant growth within the context of the educational needs and directions of the school. It is further expected that through the type of approach utilized in MAP, based on self-assessment, personal

goal setting, and the use of alternative structures for professional growth, a greater degree of self-actualization will be achieved with the resultant momentum affecting the growth of others of the school staff.

The results of the project were disseminated to other institutions and schools throughout Connecticut by means of the following:

- a. Distribution of descriptive and evaluative reports.
- b. Presentations at professional meetings and conferences.
- c. On-site visitations by interested individuals and groups.