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ABSTRACT

The teacher education model developed by the consortium of Ohio universities contains 818 specifications which include in excess of 2,000 behavioral objectives. Each specification identifies the behavioral objectives. Specifications were developed within five broad contexts and apply to one or more of the six target populations involved in elementary education and the preparation of elementary school teachers. The model is predicated on the assumption that the elementary school will move in the direction of team teaching, specifically with the instructional organization of the multi-unit school or a modification thereof. Each specification is identified by number and coded according to a numerical code in terms of information contained in the specification. This coding process is designed to enable the user of the specifications to deal with them more effectively and flexibly in developing model programs in a variety of contexts. A process was developed whereby composites of specifications can be identified and programs based upon these specifications can be designed and implemented. An evaluative process was designed so that any program arranged in behavioral terms can be evaluated at a given point in time with provisions for prompt and objective feedback for program self-correction and modification. (See ED 035 076 for a readers' guide to the nine funded models.) (LP)

Brief Title:

Guide to
The University of Toledo
Teacher Education Model

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A GUIDE TO
EDUCATIONAL SPECIFICATIONS FOR A COMPREHENSIVE
ELEMENTARY TEACHER EDUCATION PROGRAM

William Wiersma

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and Association for Student Teaching, a national
affiliate of the NEA.

The following Guide is one of the nine which appears in the publication
A Reader's Guide to the Nine Models for Preparing Elementary Teachers. The
Guide is available free in limited quantity from the ERIC Clearinghouse on
Teacher Education; for \$4.00 from American Association of Colleges for Teacher
Education, One Dupont Circle, Washington, D.C. 20036; and for \$1.25 in micro-
fiche and \$15.90 in hard copy from the ERIC Document Reproduction Service
(EDRS), 4936 Fairmont Ave., Bethesda, Md. 20014. The order number at EDRS is
ED 034 076.

The Clearinghouse is publishing each of the nine guides separately as
well as collectively for the convenience of those readers interested in a
specific elementary teacher education model. The above individual Guide
also is available free in limited quantity from the Clearinghouse and for
\$0.25 in microfiche and \$1.00 in hard copy from EDRS. An abstract of the
above Toledo model will appear in the May 1970 Research in Education.

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Introduction

On October 16, 1967, the U.S. Office of Education issued a request for the development of proposals on educational specifications for comprehensive undergraduate and inservice teacher education programs for elementary teachers. (The term elementary teacher included preschool teachers and teachers through grade 8.)

These proposals were for the design phase (phase I) of an intended three-phase project. By January 1, 1968, 80 proposals had been received. On March 1, 1968, the Bureau of Research awarded nine contracts to design conceptual models for programs for the training of prekindergarten and elementary school teachers, for the preservice as well as inservice components. These models were completed October 31, 1968.

Reports on phase I have been made under the following titles: A Model for the Preparation of Elementary School Teachers (Florida State University), G. Wesley Sowards, project manager; Behavioral Science Elementary Teacher Education Program (Michigan State University), W. Robert Houston, project director; A Competency-Based, Field-Centered Systems Approach to Elementary Education (Northwest Regional Educational Laboratory), H. Del Schalock and James R. Hale, editors; Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers (Syracuse University), William Benjamin and others, authors; The Teacher-Innovator: A Program To Prepare Teachers (Teachers College, Columbia University), Bruce R. Joyce, principal author.

Also, Georgia Educational Model Specifications for the Preparation of Elementary Teachers (The University of Georgia), Charles E. Johnson, Gilbert F. Shearron, and A. John Stauffer, directors; Educational Specifications for a Comprehensive Elementary Teacher Education Program (The University of Toledo), George E. Dickson, director; A Model of Teacher Training for the Individualization of Instruction (University of Pittsburgh), Horton C. Southworth, director; and Model Elementary Teacher Education Program (University of Massachusetts), Dwight Allen, principal investigator, and James M. Cooper, project director.

In phase II, several institutions are studying the feasibility of developing, implementing, and operating a model program based upon specifications in phase I. In the third phase, the U.S. Office of Education hopes to be able to support implementation of some of the model proposals for restructuring teacher education.

Since the models cover almost 6,000 pages devoted to detailed specifications of behavioral objectives, materials, treatments, evaluation of specific elements of the programs, and the like, the ERIC Clearinghouse on Teacher Education, on April 15-16, 1969, sponsored in collaboration with the American Association of Colleges for Teacher Education (AACTE) which acts as its fiscal agent, a writers' conference in which key personnel involved in developing the models wrote guides to their specific programs.

A second-day of verbal interaction followed, at which time the writers discussed their personal reactions to all of the models and past, present, and future implications for teacher education. The panelists wanted to make it clear that in their discussion the models were being described at but one point on a continuum. They called the models catalytic agents which have generated a great deal of discussion, interaction, and continuing change. At this conference they said it was important for them to explore the range of alternative interpretations of issues such as, "What are behavioral objectives? What is a model? What does it mean to personalize? to individualize?" They said that some kind of projection needed to be made about what remains to be done--either by resolving issues, or if they are resolved, to act upon them. This whole exercise [the writers' conference] will have made a major contribution to teacher education if it focuses on the issues at the center of this whole models effort and helps to extend the models, they said.

This guide to the models should assist those who are interested in learning about or implementing them. The entire collection of models is available from the ERIC system in either hard copy or microfiche and from the Government Printing Office (GPO) in a honeycomb binding. The ERIC ordering address is: EDRS, The National Cash Register Co., 4936 Fairmont Avenue, Bethesda, Md. 20014. The GPO address is: The Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The reports must be ordered by number. Any request without order numbers will be returned. Some of the reports listed do not have ERIC order numbers. These reports may not be ordered until the listing appears in Research in Education, the monthly abstract journal of ERIC.

The reports are available at the following prices:

<u>Report By:</u>	<u>GPO Reprint</u>		<u>ED No.</u>	<u>ERIC Hard Copy</u>	<u>Micro- fiche</u>
	<u>Order No.</u>	<u>Price</u>			
Syracuse Univ.	FS 5.258:58016	\$4.50	----	-----	-----
Volume I	-----	----	026 301	\$14.85	\$1.25
Volume II	-----	----	026 302	13.55	1.25
Univ. of Pittsburgh	FS 5.258:58017	2.50	025 495	10.60	1.00
Florida State Univ.	-----	----	----	-----	-----
Volume I	FS 5.258:58018	2.00	027 283	8.70	.75
Volume II	Not available	----	030 631	7.40	.75
Univ. of Georgia	FS 5.258:58019	3.50	025 491	14.85	1.25
Summary	-----	----	025 492	1.50	.25
Northwest Regional Educational Labo- atory	FS 5.258:58020	6.50	----	-----	-----
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B:	Conceptual Model for Teaching Elementary Math		026 307	1.70	.25
C:	Content Model for Teaching Elementary Math		026 308	1.70	.25
D:	Sample Task Analysis and Behavioral Objectives		026 309	.70	.25
E:	General Adaptive Strategies		026 310	1.25	.25
F:	Interpersonal Competencies		026 311	.40	.25
G:	Basic Training Model for ComField Practicum		026 312	.45	.25
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L:	A Sequence for the Practicum		026 317	.60	.25
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N:	Implementation of Rups System in a Total School District		026 319	2.20	.25
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P:	Categorical Breakdown of Interpersonal Area		026 321	.30	.25
Q:	Educational Leaders Labora- tory		026 322	.30	.25
R:	A Basic Communication Skill for Improving Interpersonal Relationships		026 323	.75	.25
S:	Broad Curricular Planning for the ComField Model Teacher Education Program		026 324	.85	.25
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Z: Classes of Measures Used in Behavioral Sciences, Nature of Data That Derive from Them, and Comments as to the Advantages and Disadvantages of Each			026 331	.40	.25
Teachers College, Columbia Univ.	FS 5.258:58021	4.50	027 284	26.95	2.00
Univ. of Massachusetts	FS 5.258:58022	4.50	025 490	26.25	2.25
Univ. of Toledo	FS 5.258:58023	7.00	---	---	---
Volume I	-----	----	025 457	12.80	1.00
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Michigan State Univ.	-----	----	---	---	---
Volume I	FS 5.258:58024	5.00	027 285	31.35	2.50
Volume II	FS 5.258:58024	5.50	027 286	37.95	3.00
Volume III	FS 5.258:58024	5.00	027 287	29.65	2.25

Also available (or to be available soon) are the following related reports: 1. Nine Proposals for Elementary Teacher Education, A Description of Plans To Design Exemplary Training Programs by Nicholas A. Fattu of Indiana University. This document is a summary of the nine originally proposed programs which were funded in phase I of the project for preparing elementary teachers. Available through ERIC: ED 018 677, Price: \$6.55 for hard copy; \$0.75 for microfiche. 2. Analysis and Evaluation of Plans for Comprehensive Elementary Teacher Education Models by William E. Engbretson of Governors State University. This document is an analysis of the 71 proposed, but unfunded models of phase I. Available through ERIC: ED 027 268, Price: \$12.60, hard copy; \$1.00, microfiche.

3. A self-initiated critique of the Syracuse University model program, Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers. ED 027 276, Price: \$7.20 for hard copy; \$0.75 for microfiche. 4. Some Comments on Nine Elementary Teacher Education Models by the System Development Corporation. This paper is adapted from remarks made at an American Educational Research Association conference in November 1968. Available through ERIC: ED 029 813, Price \$0.75 for hard copy; \$0.25 for microfiche. 5. Twenty-page summaries of the nine reports are available, free of charge, from: Elementary Teacher Education Project, Division of Elementary and Secondary Research, National Center for Educational Research and Development, U.S. Office of Education, 400 Maryland Avenue, S.W., Washington, D.C. 20202.

6. A Bibliography of References Used in the Preparation of Nine Model Teacher Education Programs by James F. Schaefer Jr. (Washington, D.C.: ERIC Clearinghouse on Teacher Education and the Bureau of

Research, U.S. Office of Education, 1969). ED 031 460, Price: \$4.95, hard copy; \$0.50, microfiche. 7. Analytic Summaries of Specifications for Model Teacher Education Programs, 8. A Short Summary of 10 Model Teacher Education Programs, and 9. Techniques for Developing an Elementary Teacher Education Model are three publications which were issued by the System Development Corporation in July 1969.

It is appropriate to express appreciation to the Clearinghouse staff for its dedication and hard work in completing this manuscript: Dr. Joost Yff, assistant director, and Mrs. Dorothy Mueller, program associate, whose advice and guidance were invaluable; Mrs. Lorraine Poliakoff and Mrs. Suzanne Martin, information analysts, who provided the index to this volume; and to the clerical staff of the Clearinghouse, especially Mrs. Vera Juarez, whose steady assistance made this publication possible. Appreciation also should be expressed to AACTE for its role in the conference and in this Guide, and, of course, to the writers of the guides for their full cooperation both during and after the conference.

The Clearinghouse on Teacher Education is pleased to present this guide to the nine models in the hope that it will stimulate extensive study of ways to improve school personnel preparation and thereby the educational opportunities for America's children and youth.

Kaliopee Lanzillotti, Publications Coordinator

Joel Burdin, Director

February 1970

About ERIC

The Educational Resources Information Center (ERIC) forms a nationwide information system established by the U.S. Office of Education, designed to serve and advance American education. Its basic objective is to provide ideas and information on significant current documents (e.g., research reports, articles, theoretical papers, program descriptions, published or unpublished conference papers, newsletters, and curriculum guides or studies) and to publicize the availability of such documents. Central ERIC is the term given to the function of the U.S. Office of Education, which provides policy, coordination, training, funds, and general services to the 19 clearinghouses in the information system. Each clearinghouse focuses its activities on a separate subject-matter area; acquires, evaluates, abstracts, and indexes documents; processes many significant documents into the ERIC system; and publicizes available ideas and information to the education community through its own publications, those of Central ERIC, and other educational media.

Teacher Education and ERIC

The ERIC Clearinghouse on Teacher Education, established June 20, 1968, is sponsored by three professional groups--the American Association of Colleges for Teacher Education (fiscal agent); the National Commission on Teacher Education and Professional Standards of the National Education Association (NEA); and the Association for Student Teaching, a national affiliate of NEA. It is located at One Dupont Circle, Washington, D.C. 20036.

Scope of Clearinghouse Activities

Users of this guide are encouraged to send to the ERIC Clearinghouse on Teacher Education documents related to its scope, a statement of which follows:

The Clearinghouse is responsible for research reports, curriculum descriptions, theoretical papers, addresses, and other materials relative to the preparation of school personnel (nursery, elementary, secondary, and supporting school personnel); the preparation and development of teacher educators; and the profession of teaching. The scope includes recruitment, selection, lifelong personal and professional development, and teacher placement as well as the profession of teaching. While the major interest of the Clearinghouse is professional preparation and practice in America, it also is interested in international aspects of the field.

The scope also guides the Clearinghouse's Advisory and Policy Council and staff in decisionmaking relative to the commissioning of monographs, bibliographies, and directories. The scope is a flexible guide in the idea and information needs of those concerned with the pre- and inservice preparation of school personnel and the profession of teaching.

How To Use This Guide

Each guide has this general outline: overview, program goals and rationale, selection procedures, professional preservice component, relationship of professional component to academic component, inservice component, faculty requirements and staff utilization, evaluation component, program management, and summary. The Teachers College guide, which was not written at the conference, is the only one with a different outline.

In the Government Printing Office (GPO) edition of the models, some of the pages were numbered differently from the original reports which were processed into the ERIC system. For the readers' convenience, the footnotes to the guides include the page references to both the GPO and ED (ERIC) editions. If the page references in the footnotes were the same for both editions, only one set of page numbers is given.

"ED" or order numbers for the models appear along with the prices and other information in the introduction. Ordering information about other references in the ERIC collection would appear in the bibliography to each guide.

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The University of Toledo

OVERVIEW

The task of developing specifications for the elementary teacher education model was conducted by a consortium of the 12 state-supported universities of Ohio. Educational agencies outside of the state of Ohio also contributed to the task. Most noteworthy of these were the Research and Development (R&D) Center for Cognitive Learning at the University of Wisconsin and EVCO, a private consulting firm located in Albuquerque, N. M. A steering committee of approximately 20 educators was formed. The steering committee members were selected for their particular expertise or for the particular agency that they represented, for example, the public schools or the Department of Education of the state of Ohio.

PROGRAM GOALS AND RATIONALE

A general set of purposes upon which the specifications development was based was secured from a statement of goals prepared by the Pennsylvania State Board of Education in 1965. This statement, modified to fit the context of teacher education, was reviewed by the steering committee.

A major departure from traditional organization of teacher education program content was incorporated into the model by developing five contexts: instructional organization, educational technology, contemporary learning-process, societal factors, and research. A position paper was prepared for each context. The papers provided a base of expository information from which subcategories were identified. Contexts were divided into major subject areas; subject areas, into topics. A body of reference materials relating to each of the contexts was identified. Specifications, based on more than 2,000 behavioral objectives, were developed within the contexts and their subheadings. The specifications are oriented to the task, in behavioral terms, that the elementary school teacher of the 1970's and beyond will be required to perform.

The five contexts are based on the following assumptions:

1. Educational technology will play a substantial role in the development of teacher education programs in the decades ahead. This role of educational technology has heretofore not been adequately identified, but pressures both from within and without teacher education will increase its development.
2. The instructional organization of the elementary school will change markedly. In the model used, the instructional organization was the multiunit school as developed through the R&D Center at the University of Wisconsin. This emphasis on instructional organization was considered necessary in order to prepare adequately teachers for the elementary school of the future. A

- detailed description of this school is found in the position paper dealing with instructional organization.¹
3. The contemporary learning-teaching process needs a reevaluation and its orientation should be more toward behavioral outcomes.
 4. A multicultural society, such as our present society, requires detailed consideration of societal factors in preparing the elementary teacher of the future.
 5. Research in education in the past has not been adequately incorporated into teacher education programs, and if research is to make an adequate contribution to the improvement of education, research findings must be incorporated into teacher education programs.

Each assumption relates to a specific position paper or context. An elaboration of the importance of each context is provided in the Final Report in the early part of volume I, and the reader is referred to that volume for more detail.

SELECTION PROCEDURES

The specifications are directed toward six major target populations: preservice, preschool, and kindergarten; preservice elementary; inservice; administrative; college and university personnel; and supportive personnel. The selection procedures obviously are not the same for all target populations. The two preservice populations must meet the entrance requirements of the institution at which the program is being implemented. The other four populations have very minimal entrance requirements in terms of entering the specific programs. Their defined association with the educational process is, in essence, the only entrance requirement. For example, an inservice teacher who is presently teaching in an elementary school is eligible for a program preparing the individual for teaching in a multi-unit school. However, entrance to a program does not guarantee the successful completion of the program. Progress toward meeting the behavioral objectives of the specifications will be continuously evaluated.

PROFESSIONAL PRESERVICE COMPONENT

The professional training of prospective teachers using the specifications developed in this model is based upon the content of the five position papers.

The training is very behaviorally oriented. Each specification, in addition to one or more behavioral objectives, contains suggested treatment, materials, and evaluation for meeting the objectives. The treatments vary considerably, ranging from traditional type of instruction to

¹George E. Dickson and others, Educational Specifications for a Comprehensive Elementary Teacher Education Program, Final Report, Vol. I (Washington, D.C.: Government Printing Office, 1969), pp. 24-76.

instruction heavily oriented toward the use of audio visual materials or simulation and other forms of technology. There is considerable emphasis upon team teaching not only in terms of the actual teaching in the elementary school, but also in terms of the training program. Specifications were developed dealing with the academic disciplines and skills such as reading, language arts, phonics, handwriting, health, etc. There is also considerable emphasis upon conducting research and development activities in the actual school setting and preparing for instruction in the multiunit school.

It should be noted that all specifications do not apply to all target populations. However, there is considerable overlap of specifications between the populations. Each specification has identified within it the one or more target populations to which it applies. Much of the content necessary for the preservice programs is also necessary for the inservice programs of teachers, administrators, and even college and university personnel, due simply to the fact that this content has not previously appeared in their training or experience. The entire professional training is oriented toward conducting an exemplary instructional program in the elementary school with considerable research and development activities as a part of such instruction. Professional training of elementary school personnel, especially the inservice populations, is based on the assumption of a role-differentiated profession. Intern and actual experiences in the elementary classroom are incorporated throughout the entire program. Within the profession, various roles such as master teacher, intern, unit leader, and principal are identified as are the necessary specifications for their professional preparation.

RELATIONSHIP OF PROFESSIONAL COMPONENT TO ACADEMIC COMPONENT

This model deals minimally with the relationship of professional content to academic content. The underlying assumption is that the training in the academic disciplines per se will be conducted by the colleges of arts and science or the like, according to their particular instructional patterns. The training for teaching in the various disciplines and skills will be a function of the college or school of education, and this particular training is covered in the specifications. This training for instruction comes under the context of instructional organization, under the specific topic called, "Academic Disciplines and Skills--Methodology." The Final Report has 62 specifications which deal with this topic.²

INSERVICE COMPONENT

The inservice component receives a great deal of attention in this particular model. This is necessary in order to utilize effectively present certified teachers in the elementary schools of the future. Many of

²George E. Dickson and others, Educational Specifications for a Comprehensive Elementary Teacher Education Program, Final Report, Vol. II, (Washington, D.C.: Government Printing Office, 1969), pp. 21-70.

the specifications dealing with training for research and development activities also apply to the various inservice groups, not only teachers but administrators and college and university personnel. A rather large body of specifications applies to the target population of inservice teachers. However, it is not necessary to utilize all of these specifications in developing a particular inservice program. A procedure is developed and described by which selected specifications would be identified in order to meet the purposes of an inservice program with limited scope but with specific objectives. The identification of such specifications are referred to as "Composite Specifications for a Model Program." This process is described more fully in the Final Report. The process is based upon identifying a well defined set of goals and the target population to which these goals apply. The content of the specifications then describes operationally the program necessary to meet these goals. The various steps in order can be summarized in figure 1.

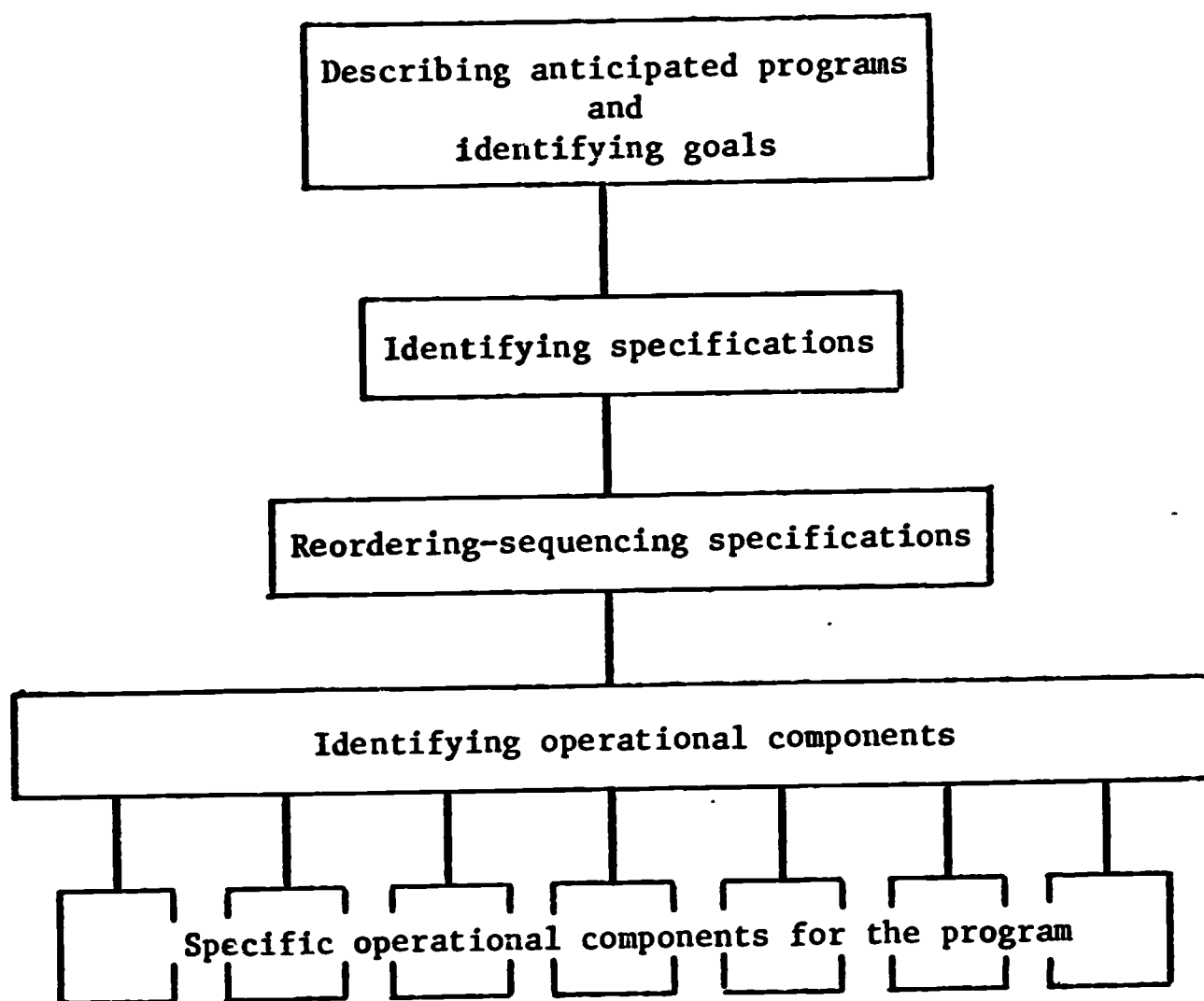


FIGURE 1

OPERATIONAL STEPS
IN PROGRAM DEVELOPMENT

³Dickson, op. cit., Vol. I, pp. 137-38.

Specifications cover inservice programs for administrators as well as for prospective unit leaders and the regular classroom teacher. Inservice programs in all cases can be designed to meet the needs of a specific group. The model provides a necessary flexibility for future development of inservice programs as undergraduate programs, based on these specifications, are implemented. Correspondingly, the necessary inservice training will change.

FACULTY REQUIREMENTS AND STAFF UTILIZATION

The faculty and staff necessary to implement the teacher education program are identified as a separate target population. A total of 449 specifications relate to the training for such university and college staff. These specifications for the most part deal with content that is now not commonly found in the repertoire of college and university teacher educators. A substantial number of these specifications deals with training for research and development activities as related to the multiunit school and educational technology. However, substantial numbers of specifications relative to this target population are found in all five contexts. Many of the specifications reflect an updating in content areas such as learning and educational sociology.

It is not necessary that all teacher educators associated with implementing this model participate in a training program to meet all 449 specifications. The comments relative to developing inservice programs for present elementary school teachers also apply here. In fact, this is a special inservice target population. Practically any professor presently on the staff of a college of education will possess one or more areas of expertise relative to these specifications. For example, an individual trained in educational research would not require additional training to meet the research methods specifications. Training programs for college and university personnel could be structured as short-term programs during the summer or a part of the academic year, or as longer, but less concentrated programs operated concurrently with their participation in a teacher education program.

EVALUATION COMPONENT

The term, "evaluation," is used in two ways in the teacher education model. One component of each specification is entitled "evaluation." This component deals specifically with procedures or materials necessary for evaluating whether the behavioral objectives of that specification have been met. This is a very specific use of evaluation, and in implementing the specifications, a teacher would be utilizing large numbers of these evaluation components. Such components are specific to the instructional task of implementing the specifications.

Evaluation is also used as a more general concept applied to continuous feedback and decisionmaking throughout the implementation of the model. In this context the purpose of evaluation is to provide information for

decisionmaking, and in order to evaluate, therefore, it is necessary to know the decisions to be served. For this purpose the evaluation design must meet the criteria of validity, reliability, and objectivity. The general evaluation designed for this model follows a single set of generalizable steps which will enable the decisionmaker to make decisions throughout the implementation of the model. Thus, evaluation is an ongoing and continuous process concurrent with implementation.

The evaluation model was developed by Professors Hammond and Stufflebeam of The Ohio State University and is basically designed after the Context, Input, Process, Product (CIPP) design. These four parts--context, input, process, and product, in essence reflect strategies within the larger evaluation design. Context evaluation provides information for planning decisions. Input evaluation provides information for structuring decisions. Process evaluation provides the information for recycling decisions. The various decisions to be made are exactly what the names imply, for example, recycling decisions are those used in determining the relation of outcomes to objectives and in determining whether to continue, terminate, or modify the activities. Applying this evaluation design to the teacher education model enables the implementer to identify and monitor the potential sources of difficulty and failure on a continuous basis. It is impossible to identify theoretically or on an a priori basis all the possible sources of difficulty, such as interpersonal relationships among staff, communication breakdowns, etc. The evaluation design not only provides for the identification of difficulties, but also for decisionmaking to circumvent and correct such difficulties. A detailed description of the evaluation design is included in the Final Report.⁴

PROGRAM MANAGEMENT

The program management relative to decisionmaking already has been discussed in the previous section. In the chapter on evaluation presented in the Final Report alluded to earlier, there is an extensive discussion of the collection, organization, and analysis of information relative to the evaluation design. The design moves through the various types of decisions and the corresponding evaluation strategies to be utilized. Except for program management through the evaluation design, the Final Report of the specifications does not contain a detailed discussion of program management. One of the major parts of a feasibility study will be to develop a program management information system. It is difficult to develop a general system for this model since such a system will be based upon the specific data base of implementing institutions and agencies. In developing the proposal for a feasibility study, a program management information system is presented. For the details of such a system, the reader is referred to the proposal document.⁵

⁴ Ibid., pp. 209-35.

⁵ George E. Dickson and others, "A Proposal To Determine Feasibility of a Comprehensive Teacher Education Program," RFP 68-10 (Toledo, Ohio: The University of Toledo, March 1969), pp. 163-76.

SUMMARY

The teacher education model developed by the consortium of Ohio universities contains 818 specifications which include in excess of 2,000 behavioral objectives. Each specification identifies the behavioral objectives. Specifications were developed within five broad contexts and apply to one or more of six target populations. The model is predicated on the assumption that the elementary school will move in a direction of team teaching, specifically with the instructional organization of the multi-unit school or a modification thereof.

Each specification is identified by number and coded according to a numerical code in terms of information contained in the specification. This coding process will enable the user of the specifications to deal with them more effectively in developing model programs. A process was developed whereby composites of specifications can be identified and programs based upon these specifications can be designed and implemented. An evaluative process was designed so that any program arranged in behavioral terms can be evaluated at a given point in time with provisions for prompt and objective feedback for program self-correction and modification. With this feature, an implementing institution can enter into new programs with confidence that if specifications are incomplete or require modification, necessary adjustments can be made through the regular course of implementing the program. Programs developed utilizing the specifications in this project will have the following characteristics:

1. The major instructional focus will be on the contexts of instructional organization and contemporary learning-teaching process.
2. Both educational technology and societal factors will receive more attention than in traditional programs.
3. There will be an emphasis on conducting and using research in the instructional setting.
4. The treatments indicate a program which is activity-centered.
5. Student involvement is equally divided between individual study and group or team experience.
6. Typical treatments provide for a progressive involvement from observation through simulated activity to direct classroom experience.
7. A wide variety of media is required to implement these programs.

Any extensive and complex composite of specifications undoubtedly has numerous strengths and some inherent difficulties at this stage of development. As a subjective judgment, the strengths of this particular composite of specifications are:

1. The position papers provide a new context for organizing instruction of teacher education programs which appears to be more relevant to today's needs.

2. The composite specifications are flexible and can be organized into various programs.
3. The elementary school of the future is given extensive consideration as are the specific skills prospective teachers will need to participate successfully in the teaching profession.
4. All major target populations involved in elementary education and the preparation of elementary school teachers are considered.
5. The professional content relevant to today's society and the direction that the elementary school appears to be moving in terms of its future role in our society is included.

One apparent weakness of this model is the relatively little emphasis upon the selection of candidates for the preservice programs. Another point which does not receive a great deal of attention is the relationship between the professional training and the academic training. In fact, there is little direct specification of the programs within the academic disciplines. The implicit assumption is that adequate training in the disciplines will be provided by colleges of arts and science according to the unique situations within individual implementing institutions.

The successful implementation of this model or parts thereof will depend upon the implementing institution's commitment to make the necessary adjustments in its program to meet these specifications. Adjustments will not be limited to theoretical or philosophical viewpoints of teacher education. Rather, they will involve specific modifications to meet the behavioral objective identified in the specifications. Even for relatively modest programs that might be identified for subpopulations involving only a small number of specifications, a commitment to make such adjustments is essential.

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