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ABSTRACT

The proposals from 27 of the 34 applicants for Phase 2 of the Comprehensive Elementary Teacher Education Models (CETEM) Program were reviewed to determine, among other things 1) what kinds of institutions participated, 2) how responsive applicants were to guidelines, 3) which Phase 1 programs Phase 2 applicants found most useful, 4) what were some major and common features of Phase 2 programs, and 5) how applicants felt about Phase 2 competition. It was found that applicants were mostly state colleges and universities; that applicants varied considerably in how they responded to guidelines; but taken together they were strongest in describing programatic features; that the Phase 1 work of Michigan State, Syracuse, Massachusetts, and Florida State was most useful; that there was agreement on a host of teacher education program features; and that applicants felt Phase 2 competition was exhilarating but that whether or not there was fair competition was doubted. The conclusions drawn included that the process of teacher education curriculum needs a theoretical base before the profession can engage wisely and economically in curriculum reform; that Phase 2 applicants did provide a blueprint for teacher education requiring dissemination and support; and that USOE must plan more efficiently and communicate more effectively. (Author/MBM)

Brief Title:

Comprehensive Teacher
Education Proposals

Comprehensive Proposals for Teacher Education: A Concise Guide Derived from Donald R. Cruickshank's Study of Proposals for Second-Phase Comprehensive Elementary Teacher Education Models Projects

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Foreword

Our Clearinghouse has sought to promote understanding and study of sound aspects of the Comprehensive Elementary Teacher Education Models Project, U.S. Office of Education. This has been done without prejudice; the CETEM Project has been a major effort to stimulate progress in school personnel pre- and in-service preparation. We have felt that if we provided information on the contents and availability of materials on CETEM's that we could contribute to the state-of-the-art.

This publication was stimulated by one of the most recent monographs on the CETEM's--that by Donald R. Cruickshank entitled Blueprints for Teacher Education: A Review of Phase II Proposals for USOE Comprehensive Elementary Teacher Education (CETEM) Program (Washington, D:C.: U.S. Office of Education, October 1, 1970).

In effect this Clearinghouse publication is a repackaging job: (a) We have excerpted some prose and charts--and have done minor editing. (b) We have added Part III to report on what is happening now. (c) We have added a major bibliography on Phase I and Phase II in the hope that extensive reading of and about the models will result.

Our major CETEM project was the development of a guide designed to enable readers to get a broad understanding of the models and to find the specific clues to reading in the models themselves. (Joel L. Burdin and Kaliopee Lanzillotti, eds., A Readers Guide to the Comprehensive Models for Preparing Elementary Teachers (Washington, D.C.: ERIC Clearinghouse on Teacher Education and American Association of Colleges for Teacher Education, 1969, 342pp.) See availability in bibliography. The guide, with a major index, remains a major point of departure for those seeking to study teacher education.

The appended bibliography, compiled by Mrs. Lorraine Poliakoff and Mrs. Dorothy G. Mueller, includes more than 100 citations of documents on the CETEM Project processed by this Clearinghouse. Most are available in microfiche and hardcopy from Leasco Information Products Company. Others can be obtained from the Government Printing Office; many may be secured from original publishers. We recommend reading the abstracts in Research in Education (RIE) to determine which publications you wish to secure. The "ED" numbers provided in the bibliography enable you to find the appropriate monthly issue of RIE (the RIE spine indicates inclusive "ED" numbers for each issue).

This monograph--like the complete Cruickshank study--provides a report on how selected institutions reacted to Phase I models. We recommend a reading of the complete Cruickshank study for it provides detailed summaries of Phase II proposals. Most responding to the RFP for Phase II were not rewarded with funds. Their reactions and feelings will be interesting and useful to others. In a real sense, this Clearinghouse document lacks unity and coherence,

for it includes excerpts, original prose, and bibliography. Its intent is to serve as a bridge between reader and the growing literature on CETEM's.

It is most appropriate to acknowledge the permission of Dr. Donald R. Cruickshank to excerpt and rearrange much of his study; the leadership of Dr. James Steffenson who has provided continuing U.S. Office of Education leadership for the CETEM Project; the model builders who have done so much to share their knowledge with the education community; Mrs. Bette Blitzer and Mrs. Diane Bartosch, who have converted marked-up copy into a readable typed version.

All these efforts will have been worthwhile if teacher education is moved forward--thereby improving education for the tens of millions of children and youth who need the best possible learning experiences. No task exceeds the importance of this one.

March 1971

Joel L. Burdin
Director

Abstract*

The proposals from twenty-seven of thirty-four applicants for Phase II of the (U.S. Office of Education) Comprehensive Elementary Teacher Education Model (CETEM) Program were reviewed to determine, among other things (a) what kinds of institutions participated, (b) how responsive applicants were to guidelines, (c) which Phase I programs Phase II applicants found most useful, (d) what were some major and common features of Phase II programs, and (e) how applicants felt about Phase II competition.

It was found that applicants were mostly state colleges and universities; that applicants varied considerably in how they responded to guidelines; but taken together they were strongest in describing programatic features; that the Phase I work of Michigan State, Syracuse, Massachusetts, and Florida State was most useful; that there was agreement on a host of teacher education program features; and that applicants felt Phase II competition was exhilerating but that whether there was fair competition or not was dubious.

The study was undertaken to present and preserve the work that has been done by applicants.

Conclusions drawn included that the process of teacher education curriculum needs a theoretical base before the profession can engage wisely and economically in curriculum reform; that Phase II applicants did provide a blueprint for teacher education requiring dissemination and support; and that USOE must plan more efficiently and communicate more effectively.

*This is a slightly edited version of the "abstract" of Cruickshank's final report reviewing Phase II proposals.

PART I

The Comprehensive Elementary Teacher Education Model (CETEM) Program in Perspective. Phase I and Phase II.

*Phase I.**

On October 16, 1967 the United States Office of Education, through its National Center for Educational Research and Development (formerly the Bureau of Research), issued a request for proposals (RFP) to develop educational specifications for program models for the preparation of elementary teachers. Thus Phase I of the Comprehensive Elementary Teacher Education Model (CETEM) Program was born. On or before January 1, 1968 the deadline for submitting proposals, 80 proposals were received. Subsequent review by an ad hoc advisory panel of field readers reduced the 80 to 9** which were awarded financial support.

Two valid criticisms were made of the Phase I program. First, proposal developers felt there was too little time provided between receipt of the RFP and guidelines and the deadline for submission (roughly two and one-half months, less the usual hold-ups of routing proposals on a university campus and of the Christmas holiday). Secondly, the period from contract award until date of submission of the final Phase I report (March 1 to October 31, 1968) was considered to be insufficient to accomplish the task of developing specifications in any logical or empirical manner. Some applicants, too, were confused over whether the task was to develop specifications for a teacher education program or to develop the program itself. Consequently real differences exist among the purposes and therefore the products contained in the nine Phase I final reports.

Before Phase I proposals were received in Washington, plans were underway for a second phase intended to support a limited number of institutions which would develop and implement one or more of the Phase I program models.

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* This is a slightly edited version of Chapter I of Cruickshank's final report reviewing Phase II proposals.

** Florida State University, Michigan State University, Northwest Regional Educational Laboratory, Ohio Consortium, Syracuse University, Teachers College Columbia University, University of Georgia, University of Massachusetts, University of Pittsburgh. All Phase I final reports are available in hard cover from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. They also are available both in paper form ("hard-copy") and microfiche from ERIC Document Reproduction Service, Leasco Information Products Company, 4827 Rugby Avenue, Bethesda, Maryland 20014.

On October 31, 1968 an RFP was mailed to university presidents announcing this competition. In the announcement Dr. Norman Boyan noted a sharp change in strategy inserting an intermediate step. Two reasons were given for the change.

> It now appears that we would be wise not to initiate the development work for another year. There are two reasons for this decision. First, we are uncertain at this time of adequate funds for such major development activities. Second, additional management, planning, and cost data are necessary to justify a request for adequate funds. As a result we propose to use FY 69 funds for a comprehensive planning period.

*The Revised Phase II Task.**

Consequently, Phase II required the applicant to adopt a program model for use, based upon a review and analysis of Phase I products. Once the applicant's program model was chosen and developed, the second order of business was to determine how feasible implementation would be financially. In Washington's words, the task of an applicant for Phase II was:

> . . .to describe . . . a model teacher training program based upon the specifications designed by one or more of the groups engaged in Phase I. The remainder of the proposal then becomes the design for a feasibility study of developing, implementing, and operating . . .

More specifically, Phase II guidelines called upon the applicant to:

1. Describe procedures to be used to obtain a systematic analysis of what American society will be like in the mid-1970's.
2. Describe the model institutional setting.
3. Describe the Phase I design or designs to be developed and implemented.
4. Provide a rationale for selection of the program design, designs or components in "3" above.

At this point in proposal writing applicants would have described a teacher education program to be developed and implemented in a model teacher training institution--one considered to be relevant to American society in the mid-1970's.

* This is a slightly edited version of Chapter I of Cruickshank's final report reviewing Phase II proposals.

Recall that "the remainder of the proposal" asked for the "design for a feasibility study of developing, implementing, and operating" the program. In other words, not only must the applicant establish the teacher education program he wished to follow; but, in addition, he had to provide a plan to be used to determine the human, material, and financial resources required to design, develop, and implement the new program.

The guidelines suggested some components of a teacher education system, each of which would require attention to feasibility. They are described in the guidelines (pp. 7-10). Paraphrased, they include:

1. A list of teacher competencies sought, expressed in behavioral terms.
2. A description of learning activities whereby teacher trainees can attain the desired competencies.
3. A description of instruments to be used to measure competency attainment.
4. A plan for revising and improving the program.
5. A plan for orienting and providing inservice assistance to the teacher education and other faculties.
6. Procedures for selecting and retaining trainees.
7. Evidence of availability of resources to do the job.
8. Evidence of reciprocal commitments with state and local agencies.

Phase II maintained the original eligibility requirements that an applicant must graduate at least 100 elementary majors each year. This requirement caused a swell of criticism from smaller institutions. Consequently a consortium of so-called "developing institutions" was provided with opportunities to engage in a study of the nine Phase I products. A second carry-over mandate to applicants urged them in planning to use outside resources including institutions of higher education, regional educational laboratories, and profit and nonprofit research and development groups.

In order to provide for interaction between potential applicants and USOE concerning the task, pre-proposal conferences were held in Denver and Washington, D. C., in mid-November.

*Selected Conclusions on Phase II.**

Thirty-four institutions applied for funds during Phase II competition.

* These conclusions are a slightly edited version of Chapter V of Cruickshank's final report reviewing Phase II proposals.

Since only a few institutions could be supported, USOE wished to collect and save the efforts put forth by all who participated in the competition. As a consequence of the study, information is available to answer the following questions: What kinds of institutions participated? What was their geographical distribution? Did the same institutions compete in both Phase I and Phase II competition? How responsive were applicants to the USOE guidelines? Which Phase I programs did Phase II applicants see as most attractive and why? What were some of the major features (general, curricular, instructional, and evaluative) proposed? How did applicants propose to design, develop, implement, and evaluate their programs? How did applicants propose to determine what future society would be like and how teacher education would be responsive to that future? Two additional questions have special significance for institutions looking toward change in teacher education: What common program features were discernible? And what unique or unusual elements were presented? Finally, some applicants provided their reactions to the competition. Some of the findings from the 27 cooperating Phase II applicants follow.

Applicants were almost entirely state-operated colleges and universities. The 34 proposals came from 21 states with USOE Region V, the upper-midwest, submitting most often. Far fewer small (less than 20,000-enrollment) institutions participated in Phase II than in Phase I. Only 6 of 71 Phase I losers continued into Phase II competition. Only 1 Phase I loser (Wisconsin) became a Phase II winner.

Applicants seemed much more responsive to certain guideline requests than to others. Generally, they failed to describe the model teacher education institution in which the program would be carried on. Institutions, too, were less responsive to describing what society would be like in the future. A wide range of sophistication was revealed as applicants sought to describe how they would develop and operationalize the program and obtain cost estimates. More responsive were sections wherein applicants described their adopted programs and the rationale for their selection, although in the latter case rationales were often meager. Unfortunately, institutions were prone to select Phase I programs most in keeping with their own values, which would seem to indicate that very little change would really take place.

The most frequently used Phase I programs were Michigan State, Syracuse, Massachusetts, and Florida State--in that order. Least used were Teachers College, Columbia University; Georgia; Pittsburgh; and the Ohio Consortium. Falling between was the Northwest Laboratory's ComField Program. Those chosen more often seemed to have a common characteristic: They had reasonably well developed program components. Those chosen least often were either more theoretically oriented and/or contained lists of performance criteria or more skeletal outlines of curriculum. Interestingly, Michigan State University had features of both the most and least popular. Perhaps it had something for everyone.

Major and common features proposed included (a) preparing the teacher as a change agent; (b) accepting operant conditioning as a mode of shaping children's classroom behavior; (c) investigating the classroom in terms of what teachers and students do, how they do it, and with what effects; (d) preparing teachers to develop curricula and curriculum materials rather than just to use them; (e) preparing teachers increasingly to utilize media and technology; (f) studying the classroom and educational scene in the manner of the behavioral scientist; (g) helping teachers to become more aware and understanding of themselves; (h) understanding and applying what is known about human learning; (i) providing teachers-to-be with career information and career choice activities; (j) preparing teachers to work with more diverse kinds of children; (k) making teachers more aware of the concepts of professionalism; (l) teaching technical skills, and (m) producing teachers who have evaluation and research competencies.

Other areas of high agreement included (a) use of performance criteria in assessment, (b) experience with children, (c) provision of paid internships, (d) preparation of teachers for a variety of roles and stages of professionalism, (e) provision of multiple entry and exit points, (f) provision of career-long professional growth, (g) development of sophisticated teacher education support systems, (h) establishment of closer ties with public schools and others, (i) provision of greater freedom for students to select from a wider variety of content and experiences, (j) redefinition of faculty roles, and (k) interdisciplinary responsibility for teacher preparation.

Reactions to involvement in Phase II came from only 11 of 34 participants. Those responding (possibly an unrepresentative sampling) generally felt that participation in Phase I and politicking by Phase I applicants made Phase II competition unfair. Applicants, too, felt USOE was completely unresponsive to losers' requests for evaluation of their efforts. Beyond such criticisms, however, Phase II applicants felt the USOE effort worthwhile and preliminary to creating change in teacher education on their campuses.

*Some General Conclusions.**

Attempting to change teacher education is, indeed, a praise-worthy activity. However, before such efforts can be fruitful much work remains to be done in scrutinizing and attempting to explain the phenomenon of change in teacher education. Such theorizing, remarkably undone though 200,000 teachers are processed each year, is essential for engaging more institutions more wisely and economically in the change process. Lack of theory causes each new developer to start from scratch and to "reinvent the wheel" rather than improve it. When legitimate teacher education curriculum efforts are made, they pass relatively unknown and almost totally unstudied. Such has been the case with CETEM Phase I and Phase II efforts.

* These conclusions are a slightly edited version of Chapter V of Cruickshank's final report reviewing Phase II proposals.

Each, without the guidance of theory, engaged in the process of curriculum and program development as if it had never been done before. The legacy of such activity, useful as it may be, is not in keeping with a scientific approach to problem solving. Furthermore, the work has not been well studied with an eye toward generating theory.

This study, too, was devoted more to product than to process. Studying the process of curriculum development in teacher education would provide knowledge more likely to result in change by increasingly greater numbers of teacher preparation institutions. The cry is more likely to be "How do we do it?" rather than "What did they do?"

In keeping with this caution, it would be wise for USOE or professional organizations to commission the nine Phase I directors and perhaps Phase II applicants to document the process of curriculum and program development as they engaged in it. As suggested earlier, synthesis of this data and theorizing about the processes could be a more important contribution than the presently available final reports.

The most obvious value of this study is the general blueprint it provides in terms of teacher education curriculum specifications. It must be assumed that the men and women of good faith who engaged in Phase II, given adequate support and reinforcement, would change teacher education in ways indicated. Perhaps USOE and professional organizations have a responsibility to alert all levels of government and foundations to these plans and assist in their implementation. If support is not forthcoming, the blueprints will, of necessity, be put back in folders labeled "Things to Do."

Finally, it seems reasonable to conclude that USOE must work toward (a) developing clearer guidelines, (b) providing adequate time for applicants to respond to RFP's, (c) providing adequate time for applicants to do an outstanding job, and (d) responding to unsuccessful applicants' requests for evaluations. It may be that RFP's should contain explanations of restraints faced by USOE. Such revelations may well decrease the likelihood of later animosities. Long-range planning for similar big-impact programs should be carefully PERT-ed and developed utilizing PPBS or other cost accounting and program management systems. After all, we should practice what we preach.

PART II

Selected Tables on Phase II Proposals for Feasibility Studies*

*This section contains selected charts from Cruickshank's final report reviewing Phase II proposals. Only the table numbers have been changed, except as noted on page 10.

TABLE I

THIRTY-FOUR APPLICANTS FOR CETEM PHASE II
RANKED ACCORDING TO YEARLY PRODUCTION
OF ELEMENTARY EDUCATION MAJORS

	Institution	Number of Elementary Teachers Graduated	Total Campus Enrollment
1.	Michigan State University	866	42,053
2.	San Jose State College	686	26,975
3.	California State College at Los Angeles	460	22,287
4.	University of Michigan	448	37,284
5.	Illinois State University	411	11,440
6.	Florida State University	359	15,595
7.	University of Texas at Austin	336	32,519
8.	Western Washington State University	334	6,757
9.	Rhode Island College	319	4,687
10.	University of Houston	319	21,770
11.	Drake University	307	7,576
12.	University of Georgia	303	20,470
13.	New York University	300	34,582
14.	Wisconsin State University, Oshkosh	298	9,444
15.	Oregon College of Education	287	2,787
16.	University of Maryland	276	45,276
17.	University of Massachusetts	226	17,773
18.	California State College at Hayward	223	7,855
19.	University of Illinois	220	47,974
20.	University of Cincinnati	201	27,264
21.	Washington State University	189	11,609
22.	Purdue University	169	34,263
23.	University of Oklahoma	161	21,085
24.	Oklahoma State University	155	20,518
25.	University of Toledo	145	12,698
26.	Northwestern State College of Louisiana	132	6,333
27.	Syracuse University	130	23,425
28.	University of Wisconsin	126	57,052
29.	University of Pittsburgh	118	25,060
30.	Southern Methodist University	113	9,322
31.	Chadron State College	109	1,936
32.	Florida A & M University	109	4,088
33.	Iowa State University	102	16,925
34.	Minnesota State Colleges	not available	

TABLE II

SELECTED APPROACHES FOR DESIGNING, DEVELOPING, AND EVALUATING COMPONENTS OF THE PHASE II PROGRAMS

Approach 1

a. Develop instructional materials.
b. Conduct training and retraining programs.
c. Evaluate the effectiveness of the training and retraining programs.
d. Determine cost estimates, including salaries and wages, fixed expenses, equipment costs, cost by program phase, cost per student, and so forth.

Approach 2

Assess several dimensions of feasibility--fiscal, logistical, programatic, human in relation to system--operation, implementation, development, text, and program.

Approach 3

Assign task forces to five jobs: (a) general administration of the program, (b) program development, (c) information retrieval, (d) research, evaluation and cost benefit analysis, and (e) other organizational structure. Pose questions for each task force and suggest procedures for each to follow.

Approach 4

a. Develop educational projection for 1970's.
b. Develop operational program specifications.
c. Develop plans for managing development, implementation, and operation of the program.
d. Derive cost estimates.

Approach 5

Make eight task forces responsible for one of the following:

a. Refining Phase I program according to a review panel's recommendations and in keeping with other Phase I programs.
b. Designing alternative strategies for development and operation.
c. Determining implementation and operation requirements.
d. Analyzing cost.
e. Designing an "exportability" instrument.
f. Devising a simulation of decision-making required.
g. Determining final specification as a result of cost analysis and cost effectiveness studies.
h. Preparing the final report.

TABLE II (continued)

Approach 6

a. Organize, orient, and train feasibility staff.
b. Each team organized undertakes the design and development of one program component.
c. Synthesize resultant designs and subject each to cost analysis.

Approach 7

Address the feasibility study to the following questions:

a. Is the model technically feasible in terms of available faculty, staff, equipment, facilities, student time, etc.?
b. Is the model economically feasible?
c. Is the model administratively feasible?
d. Is the model pedagogically feasible?
e. Is the model acceptable to its clients?
f. How will the model ensure and maintain its relevance?

Approach 8*

Develop a management package to guide the development of the new program, whose decision-making capabilities will include:

a. Analyses of the psychological merit and learning potentialities of the instructional modules.

b. A PERT chart of the sequence of events and activities.

c. A flow chart showing how each module will be phased into the ongoing program.

d. Evaluative instruments to determine success in attaining objectives.

e. Plans for needed physical facilities.

f. Plans for personnel needed for each module.

g. A flow chart for internal communications.

h. A PERT chart showing progress from design to field testing and implementation.

i. A sequential evaluation system.

j. A summary statement, including a PERT chart and a PPBS analysis.

* This "approach" is adapted from page 76 of Cruickshank's final report reviewing Phase II proposals.

TABLE III

RESPONSES TO THE REQUEST TO PROVIDE PROCEDURES FOR ANALYZING WHAT AMERICAN SOCIETY WOULD BE LIKE IN MID-1970

Applicants		N*
1.	Not responding to the request.	6
2.	Identifying indicators and trends which would be studied.	6
3.	Presenting trends and conditions which would affect schools and teacher education.	6
4.	Reporting they would obtain such data from existing agencies including the Syracuse and Stanford Educational Policy Centers.	3
5.	Using projections already made by a Phase I institution.	2
6.	Suggesting committees be formed to study the problem.	2
7.	Suggesting a plan for keeping the program up-to-date at all times, disregarding the target mid-1970.	2
8.	Planning revision based on internal feedback rather than on external conditions.	1
9.	Establishing a permanent component to determine data.	1
10.	Using an earlier study (Eight State Project) which provided the data.	1

*N does not equal the 27 applicants since some noted more than one approach.

TABLE IV

INCIDENCE OF SELECTION OF PHASE I PROGRAMS AS PRIMARY OR SECONDARY SOURCES BY PHASE II APPLICANTS

Phase I Program	Chosen as Primary Source	Chosen as Secondary Source	Total Frequency of Selection
Florida State	2	9	11
Georgia	2	3	5
Massachusetts	4	8	12
Michigan State	4	12	16
Northwest Lab (ComField)	2	9	11
Ohio Consortium	2	7	9
Pittsburgh	2	5	7
Syracuse	1	13	14
Teachers College, Columbia	1	3	4

TABLE V

REASONS GIVEN FOR SELECTION OF PHASE I PROGRAMS OR COMPONENTS

The Phase I Program or Component Selected	Frequency of choice
1. Reflected values similar to those of the applicant institution.	17
2. Was familiar (e.g., developed by the applicant in Phase I).	5
3. Was well done--a superior job.	3
4. Had curriculum features similar to the applicant institution.	2
5. Was realistic.	1
6. Responded to problems of higher education.	1
7. Was flexible.	1
8. Was committed to academic excellence.	1
9. Has a similar view of society in the future.	1
10. Was consistent with new directions in elementary education.	1
11. No rationale for selection could be determined.	1

TABLE VI

FEATURED COMPONENTS OF PHASE II PROGRAMS
AS REQUIRED BY USOE GUIDELINES

1. Teachers to be trained for emerging tasks--for example, the teacher as an institution builder and change agent.

2. Evaluation of teacher trainees to be based upon use of performance criteria.

3. Success of teacher trainees to be based upon their ability to demonstrate desirable change in pupils.

4. Teacher trainees to be taught to use behavior modification techniques.

5. Various styles of teaching to be explored by trainees.

6. Trainees to study systems for analyzing teacher and pupil behavior.

7. Techniques of developing and producing curriculum materials to be mastered.

8. Trainees to be given earlier, more, and more intensive experience with children.

9. Trainees to experience a paid internship as a capstone experience.

10. Wide utilization to be made of simulations (selected experiences which are controlled and less complex than the real world).

11. Trainees to be familiar with many media and forms of technology, including the computer and how it can serve as an administrative and instructional aid.

12. Trainees to study the microethnology and dynamics of the classroom.

13. Trainees to learn to work in teams.

14. Social, political, historical, and technical nature of schools to be studied.

15. Trainees to experience personal and group awareness and improve human relations skills through forms of sensitivity training.

TABLE VI (continued)

16. Trainee instruction to utilize modules characterized by pretests, alternative teaching-learning strategies, and post-tests of a behavioral nature. Individualization and personalization of instruction to be stressed.

17. All teacher trainees to be exposed to a rich and demanding program of general education which is to be reshaped in a way to model the desired behavior of that trainee as a teacher.

18. Human learning to be learned.

19. Styles of inquiry to be learned.

20. Trainees to be given early insight and experience into teaching as a career.

21. Areas of professional education concentration to be available, including teaching of learning disabled, societal outcasts, very young children, and so forth.

22. Trainees to be prepared for differentiated roles (career ladder notion).

23. Multiple entrance and exit points to be used for moving into or out of the program.

24. Trainees to be prepared for professionalism.

25. Study of methodologies of teaching to continue (e.g., reading, language arts, social studies, science, mathematics).

26. Child development to be studied.

27. Evaluation and research skills to be learned.

28. Scaled-down teaching, including microteaching, to be utilized.

29. Much of the program to be self-directed.

30. Teacher education to require at least five years of preparation.

31. Continuing education beyond graduate level to be maintained.

TABLE VII

CATEGORIZED FEATURES COMMON AMONG
PHASE II PROPOSALS

General Characteristics (Including Process)

1. Establishment of objectives for curriculum and instruction utilizing performance criteria.
2. Provision for earlier and more productive experience with children.
3. Provision of a paid internship as the capstone experience.
4. Preparation of teachers for a variety of roles and stages of professionalism suggested by differentiated staffing and career ladders.
5. Provision of multiple entry and exit points for the student.
6. Provision for career-long professional growth of graduates.
7. Development of support subsystems for program design, development, implementation, and evaluation.
8. Establishment of closer ties with public schools--transfer of some instructional responsibilities to school settings.
9. Provision of greater freedom for students to select from a wider range of content and experience.
10. Redefinition of faculty roles--greater emphasis on individual and small group interaction with teachers, the teacher as instructional manager.
11. Interdisciplinary planning for teacher education.

Curriculum (Content)

1. Change and the teacher as a change agent.
2. Child behavior modification techniques.
3. Styles of teaching.
4. Analysis of pupil-teacher behavior and interaction.
5. Developing the curriculum and materials of instruction.

TABLE VII (continued)

6. Media and technology.

7. The classroom as a social system and a microethnology.

8. The school: its historical, social, political, and technical nature.

9. Human relations: personal and group awareness.

10. Child development and human learning.

11. Styles of scholarly inquiry.

12. Teaching as a career.

13. Teaching special children (including learning disabled, societal outcasts, very young).

14. Professionalism.

15. Methodological teaching.

16. Evaluation and research skills.

17. Technical skills of teaching.

18. Rich and demanding program in general education; greater emphasis upon the behavioral sciences.

Instruction

1. Use of simulations, mirror teaching, and other forms of controlled, focused, scaled-down experience.

2. Building of interpersonal and team teaching skills.

3. Students taught as they are expected to teach; college teacher as a model.

4. Self-direction as often as possible.

5. Integration of theory and practice; immediate application of classroom knowledge in simulated or real settings.

6. Use of modules characterized by pretests, alternative teaching-learning strategies, and post-tests of a performance nature.

7. Individualized and personalized instruction.

TABLE VIII

UNIQUE ELEMENTS FOUND IN PHASE II PROPOSALS

California State College at Hayward

- Selection of a program in terms of its ability to overcome major problems in society and higher education.
- Helping students identify teaching styles through literary models.
- Emphasis on behavior modification techniques.

Drake University

- Use of Drumheller Module Design Model for constructing modules.

Florida State University

- Development of a data-based system, oriented to accepted performance criteria, for admission to teacher preparation.
- Establishment of a network of portal schools tied to a preparation institution.

Iowa State University

- Preparation of teachers Nursery-Grade 8 for all settings and all forms of school and classroom organization.
- Development of a talent component consisting of experiences organized around six world-of-work needs.

Michigan State University

- Attention to total curriculum instead of just professional education.

New York University

- Attention to differentiated roles and provision of multiple entry and exit points.

Northwestern State College of Louisiana

- Development of a Laboratory Experience School designed specifically for individualized instruction and central to training pre- and in-service teachers in that methodology.

UNIQUE ELEMENTS FOUND IN PHASE II PROPOSALS (continued)

Oklahoma State University

- Presentation of a theoretical model for developing the teacher education curriculum.

Oregon College of Education

- Efforts to test and obtain feasibility of program model in several locations both within and outside the state.

San Jose State College

- Description of several ongoing teacher education programs.

Southern Methodist University

- Specific indication of how its present program is to be modified based on two models.

Southwest Minnesota State College

- Utilization of components from eight Phase I program models.

Syracuse University

- Carefully developed and well explained process to be undertaken for judging feasibility.

University of Georgia

- Extension of its program to include components from Florida State, Massachusetts, and Ohio Consortium.

University of Houston

- Concern that, because field experience can subvert campus effort, greater use must be made of simulation and microteaching as forms of laboratory experience.

University of Illinois

- Placement of teacher education in a new administrative unit to be planned by personnel from many departments within the University.

University of Maryland

- Notation of resources available for use in making societal projections.

UNIQUE ELEMENTS FOUND IN PHASE II PROPOSALS (continued)

University of Massachusetts

- Development of a computer-programmed simulation model of the program which caused UM to produce more specific program information.

University of Michigan

- Provision of three types of program options from which students may choose.
- Provision of an integrated fifth-year program combining full-time teaching at full salary with continued supervision, study, and guidance by the University.

University of Oklahoma

- Consideration given to determining change-over costs from present to new program. (Most developers mention only start-up costs of the new program.)

University of Pittsburgh

- Strong section on support of methodology of individualization of instruction.
- Formulation of a working relationship with an "applicator institution."

University of Texas

- Strong association with an R & D Center (Texas Research and Development Center).

University of Toledo for the Ohio Consortium

- Extensive adaptation of simulation to test program alternatives.

University of Wisconsin

- Inclusion of abstracts of position papers undergirding the development of the program's various subsystems, elements, modules, and so forth.

Washington State University

- Substantial development of clinical experiences sequence.

UNIQUE ELEMENTS FOUND IN PHASE II PROPOSALS (continued)

Western Washington State College

- Inclusion of exhibits including (a) a sample of a proposed instructional system on writing behavioral objectives in accordance with Bloom's Taxonomy of Educational Objectives: Cognitive Domain, (b) a sample of a proposed instructional system on demonstrating interaction competency, and (c) a trial form for evaluating instructional managers during the practicum.

Wisconsin State University at Oshkosh

- Some components already operative and thus visible.

PART III

Present Situation and Presumed Outcomes of Phase I and Phase II

In current budget crunches the prospects for major implementation of whole models, or major parts of them, seem dim. Federal funding prospects are now so dismal that it seems unbelievable that U.S. Office of Education officials could have ever talked about tens of millions to induce institutions to bring about total and comprehensive program change! This does not suggest that the CETEM Project is either dead or a failure.

Certain CETEM-related activities are continuing. Parts are being studied or are being implemented in their birthplaces. Other kinds of institutions are acting to work out CETEM proposals, for instance, the ten "developing" ones which received small grants from the USOE to stimulate CETEM activities.* Some activities have been undertaken without any federal fiscal assistance.

The Teacher Corps is requiring implementation of some basic CETEM concepts. Funding proposals must include certain CETEM concepts such as a systems approach management system and the "portal school concept," developed at Florida State University. The CETEM's are being considered in other units of the USOE's Bureau of Educational Personnel Development, which has the mandate to assume responsibility for developing CETEM potentialities.

The CETEM's have stimulated much literature on improving teacher education. Descriptive material on the models has reached significant proportions. Numerous analyses and guides have been published. Many audiovisual sets have been developed to facilitate study.

*The ten have made reports on their activities to USOE; they also have inter-institutional visits and reporting conferences. The inter-institutional visitations have involved both the colleges in the program and the major universities where the models were developed.

Potentialities of the CETEM's for stimulating research have not yet been attained. A major need in teacher education is research and experimentation which determine the soundness of the major conceptual framework provided by the CETEM's. The state-of-the-art would be moved forward if many research and experimentation projects could be simultaneously "plugged into" a CETEM schema. This activity in turn could provide clues for additional scholarly activity. There is need for such activity to replace bits-and-pieces approaches now prevalent; they are so diverse in intent, methodology, and sophistication that they tend to leave practitioners at a loss on what works and what doesn't. The CETEM emphasis on continuous assessment and improvement provides a much needed direction for teacher educators.

Unverified testimony is heard about the values of interaction of CETEM-stimulated workshops and meetings as well as reporting sessions at professional association conferences. It is likely that some CETEM-generated interaction is continued through correspondence, phone calls, and inter-institutional visitation. Acquaintances established at professional events often last for years and are a major communications linkage.

Leadership and scholar development has been a CETEM Project spinoff. Provided CETEM resources, professionals have been able to study, research, observe, discuss, and implement alternatives to comprehensive improvements in school personnel preparation. Their activities have taken place in professional education units and in subject-matter departments--adding credence to the concept of all-college responsibility for teacher education. New alignments have occurred outside collegiate settings; they have included state and local education agencies, professional groups, and profit-making

enterprises. Opportunities for leadership within these varied settings should have generated an essential kind of leadership potential in times when teacher education occurs in many settings and when there is a fusion of what formerly was pre- and in-service teacher education.

The cynics may point to present CETEM activity--or dearth of it--and scoff at the pay-offs of this multimillion-dollar project. While oversold, and its strategy for change subjected to question from inception, it is the boldest and most comprehensive teacher education project undertaken by USOE. Future projects of similar breadth should be undertaken, commensurate with the magnitude of educational tasks facing the nation and their urgency if the quality of American life is to be redeemed and if the democratic dream is to be reactivated. Too many educational efforts have been characterized by too little, too late, too unimaginative, too impoverished. The CETEM Project sought to reverse this.

A decade ago the nation's leaders decided to make a concerted, comprehensive effort to place Americans on the moon. Given its high priority, the task was completed.

Modest by comparison, the CETEM Project has provided valuable experience in educational engineering. We must push for putting education among our very highest national priorities to enable us to undertake and complete major educational innovations.

Comprehensive efforts stimulated by the CETEM Project can give us data, ideas and insights, and experience required when education attains the status which the nation must give it. Education is, after all, the challenging frontier of the seventies!

--Joel L. Burdin

PART IV

Bibliography of ERIC-processed Documents on the CETEM Project*

*This bibliography has been developed by Mrs. Lorraine Poliakoff and Mrs. Dorothy G. Mueller, ERIC Clearinghouse on Teacher Education.

The following documents related to the models are available through the ERIC system in either hard copy (HC) or microfiche (MF). They may be ordered by ED number from: *EDRS, LEASCO Information Products Company, 4827 Rugby Avenue, Bethesda, Maryland 20014.* The final reports may also be ordered by GPO number and title from: *The Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.*

MODELS--PHASE I AND PHASE II STUDIES

INSTITUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
Florida State Univ.	Sowards, G. Wesley	A Model for the Preparation of Elementary School Teachers. Final Report. Vol. I	027 283	$0.65	$6.58	FS5.258:58018	$2.00
		Vol. II	030 631				
		Summary of a Model for the Preparation of Elementary School Teachers. Summary of Final Report.	032 262	0.65	3.29		
	Dodl, Norman R.	A Guide to a Model for the Preparation of Elementary School Teachers.	035 601	0.65	3.29		
	Dodl, Norman R.	A Feasibility Study of the Florida State University Model for the Preparation of Elementary School Teachers.	041 869	0.65	9.87	HE5.87:F66	$2.00
Univ. of Georgia	Johnson, Charles E.; And Others	Georgia Educational Model Specifications for the Preparation of Elementary Teachers. Final Report.	025 491	0.65	9.87	FS5.258:58019	3.50
	Johnson, Charles E.	A Guide to Georgia Educational Model Specifications for the Preparation of Elementary Teachers.	035 606	0.65	3.29		

ITUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
Univ. of Georgia (cont.)	Johnson, Charles E.; And Others	Summary of the Georgia Educational Model Specifications for the Preparation of Elementary Teachers. Summary of Final Report.	025 492	$0.65	$3.29		
	Johnson, Charles E.; Shearron, Gilbert F.	The Feasibility of the Georgia Educational Model for Teacher Preparation--Elementary. Vol. I. Basic Report.	042 722	0.65	13.16	HE5.87:G29 V1	$2.75
	Johnson, Charles E.; And Others, eds.	The Feasibility of the Georgia Educational Model for Teacher Preparation--Elementary. Vol. II A&B. Technical Report.	042 728	0.65	36.19	HE5.87:G29 V.2 A&B	5.75
	Johnson, Charles E.; And Others, eds.	The Feasibility of the Georgia Educational Model for Teacher Preparation--Elementary. Vol. III. Job Descriptions.	042 729	0.65	6.58	HE5.87:G29 V.3	1.75
Univ. of Mass.	Allen, Dwight, And Others	A Proposed New Program for Elementary Teacher Education at the University of Massachusetts. Final Report.	025 490	0.65	19.74	FS5.258:58022	4.50
		Summary of a Proposed New Program for Elementary Teacher Education.	033 876	0.65	3.29		
	Cooper, James M.	A Guide to Model Elementary Teacher Education Program.	035 608	0.65	3.29		
		A Feasibility Study on the Model Elementary Teacher Education Program. Phase II. Vol. 1	043 582	0.65	13.16	HE5.87:M72/2: Vol. 1 & 2	4.50
		Vol. 2	043 583	0.65	9.87		
		Summary	043 584	0.65	3.29		
Michigan State Univ.		Behavioral Science Elementary Teacher Education Program. Volume I. Final Report.	027 285	0.65	23.03	FS5.258.58024	5.00

TUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
Michigan State Univ. (cont.)		Behavioral Science Elementary Teacher Education Program. Volume II. Final Report.	027 286	$0.65	$26.32	FS5.258:58024	$5.50
		Behavioral Science Elementary Teacher Education Program. Volume III. Final Report.	027 287	0.65	19.74	FS5.258:58024	5.00
		Summary of Behavioral Science Elementary Teacher Education Program. Summary of the Final Report.	035 597	0.65	3.29		
	Houston, W. Robert	A Guide to Behavioral Science Elementary Teacher Education Program.	035 602	0.65	3.29		
		Feasibility Study: Behavioral Science Teacher Education Program. Final Report.	041 868	0.65	16.45	HE5.87:B39	5.25
Northwest Regional Educational Lab.	Schalock, H. Del, Ed.; Hale, James R., Ed.	A Competency-Based, Field-Centered Systems Approach to Elementary Teacher Education. Volume I, Overview and Specifications. Final Report.	026 305	0.65	6.58	FS5.258:58020 V.1 & App. A-Z	6.50
	Schalock, H. Del	Appendix A. A First Approximation to a Taxonomy of Learner Outcome	026 306	0.65	3.29		
	Rousseau, Leon	Appendix B. A Conceptual Model for the Teaching of Elementary Mathematics	026 307	0.65	3.29		
	Gaudette, Dean; And Others	Appendix C. Content Model--Mathematics--for Elementary Education.	026 308	0.65	3.29		
	Baird, Hugh	Appendix D. Role II: Sample Task Analysis and Behavioral Objectives.	026 309	0.65	3.29		
	Garrison, Jesse; Haines, Tom	Appendix E. General Adaptive Strategies.	026 310	0.65	3.29		

...TUTIONS	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
Northwest Regional Educational Lab. (cont.)	Mial, Dorothy	Appendix F. Interpersonal Competencies:	026 311	$ 0.65	$ 3.29		
	Hale, James R.	Appendix G. Basic Training Model for the ComField Practicum.	026 312	0.65	3.29		
	Hite, Herbert; Rousseau, Leon	Appendix H. Sample Task Analysis: Behavioral Objectives for ComField Laboratory.	026 313	0.65	3.29		
	Hite, Herbert; Rousseau, Leon	Appendix I. An Experimental Model for Preparing Teachers To Develop Behavioral Objectives; the Washington State University and Bellevue (Washington) Public Schools Career Training Project.	026 314	0.65	3.29		
	Rousseau, Leon; And Others	Appendix J. An Experimental Model To Enable Instructional Managers To Demonstrate Interaction Competency.	026 315	0.65	3.29		
	Hite, Herbert; And Others	Appendix K. Trial Form of an Instrument for Evaluating Instructional Managers in the Practicum.	026 316	0.65	3.29		
	Lamb, George	Appendix L. A Sequence for the Practicum.	026 317	0.65	3.29		
	Jung, Charles	Appendix M. Research Utilization and Problem Solving.	026 318	0.65	3.29		
	Jung, Charles; And Others	Appendix N. Implementation of the RUPS System in a Total School District. District.	026 319	0.65	3.29		
	Fox, Robert S.; Lippitt, Ronald	Appendix O. The Human Relations School.	026 320	0.65	3.29		
	Jung, Charles; Luke, Robert	Appendix P. Categorical Breakdown of Interpersonal Area.	026 321	0.65	3.29		

ITUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
Northwest Regional Educational Lab. (cont.)	Van Egmond, Elmer E..	Appendix Q. Educational Leaders Laboratory	026 322	$ 0.65	$ 3.29		
	Wallen, John L.	Appendix R. Basic Communication Skill for Improving Interpersonal Relationships.	026 323	0.65	3.29		
	Garrison, Jesse	Appendix S. Broad Curricular Planning for the ComField Model Teacher Education Program.	026 324	0.65	3.29		
	Garrison, Jesse	Appendix T. Personalizing Teacher Education	026 325	0.65	3.29		
	Garrison, Jesse	Appendix U. Self Concept and Teaching: An Exploration.	026 326	0.65	3.29		
	Wallen, John L.	Appendix V. Charting the Decision-Making Structure of an Organization.	026 327	0.65	3.29		
	Sell, G. Roger; And Others	Appendix W. Cost Analysis in Teacher Education Programs.	026 328	0.65	3.29		
	Coffin, Robert W.	Appendix X. ComField Information Management System.	026 329	0.65	3		
	Coffin, Robert.	Appendix Y. The Integrated ... munications Experiment (ICE) ...y.	026 330	.65	3		
	Schalock, H. Del	Appendix Z. Classes of Measures Used in the Behavioral Sciences, the Nature of the Data That Derive from Them, and Some Comments as to the Advantages and Disadvantages of Each.	026 331	0.65	3.29		
		Summary of a Competency-Based, Field-Centered, Systems Approach to Elementary Teacher Education. Summary of the Final Report.	032 261	0.65	3.29		
	Schalock H. Del	A Guide to a Competency Based, Field-Centered, Systems Approach to Elementary Teacher Education.	035 603	0.65	3.29		

TUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
regon College of Education	Schalock, H. Del; And Others,eds.	A Plan for Managing the Development, Implementation, and Operation of a Model Elementary Teacher Education Program. Vol I: Report of the Project. Final Report.	041 866	$0.65	$9.87	HE5.87:M72 V.1	$2.50
	Corley, Clifford L.; And Others	A Plan for Managing the Development, Implementation, and Operation of a Model Elementary Teacher Education Program. Vol. II. Appendix A: Societal and Educational Projections.	042 709	0.65	3.29	HE5.87:M72/2 Vol. 2 App. A-P	2.25
	Sell, G. Roger	A Plan for Managing the Development, et cetera. Vol. II. Appendix B: Societal and Educational Projections: Analysis and Implications.	042 710	0.65	3.29		
	Buck, James E.	A Plan for Managing the Development, et cetera. Vol. II. Appendix C: Oregon Projections.	042 711	0.65	3.29		
	Broadbent, William A.	A Plan for Managing the Development, et cetera. Vol. II. Appendix D: A Consideration of the Feasibility of Educational Objectives Commissions.	042 712	0.65	3.29		
	Farr, Helen L.K.	A Plan for Managing the Development, et cetera. Vol. II. Appendix E: Coalitions, Negotiations, and the ComField Model.	042 713	0.65	3.29		
		A Plan for Managing the Development, et cetera. Vol. II. Appendix F: A Summary of the Elements Involved in the Personalization Process.	042 714	0.65	3.29		
		A Plan for Managing the Development, et cetera. Vol. II. Appendix G: Further Definition and Examples of the Classes of Learning Experiences Found Within an Instructional System.	042 715	0.65	3.29		

INSTITUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
Oregon College of Education	Smith, Marilyn M.; And Others	A Plan for Managing the Development, Implementation, and Operation of a Model Elementary Teacher Education Program. Vol. II. Appendix H: Getting Pupils to Use a Variety of Mental Operations.	042 716	$ 0.65	$ 3.29		
	Schalock, H. Del; And Others	A Plan for Managing the Development, et cetera. Vol II. Appendix I: Notes on the Design and Development of Instructional Systems.	042 717	0.65	3.29		
		A Plan for Managing the Development, et cetera. Vol. II. Appendix J: A Summary of Orientation Meetings and Planning Exercises Conducted Within the OCE Coalition.	042 718	0.65	3.29		
	Cole, R.D.; Hamreus, D.G.	A Plan for Managing the Development, et cetera. Vol. II. Appendix K: Cost Estimates by Program Mechanism.	042 719	0.65	3.29		
		A Plan for Managing the Development, et cetera. Vol. II. Appendixes L-P.	042 720	0.65	3.29		
Univ. of Pittsburgh	Southworth, Horton C.	A Model of Teacher Training for the Individualization of Instruction; Educational Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers. Final Report.	025 495	0.65	9.87	FS5.258.58017	2.50
		Summary of a Model of Teacher Training for the Individualization of Instruction: Summary of Final Report.	035 596	0.65	3.29		
	Southworth, Horton C.	A Model for Teacher Training for the Individualization of Instruction.	035 609	0.65	3.29		

INSTITUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
Syracuse Univ.	Benjamin, William; And Others	Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers. Volume I. Final Report	026 301	$ 0.65	$ 9.87	FS5.258:58016 (Vols. I & II)	$4.50
	Benjamin, William; And Others	Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers. Volume II. Final Report	026 302	0.65	9.87		
		Summary of the Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers. Summary of the Final Report.	035 594	0.65	3.29		
	DiVesta, Francis; And Others	Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers. Evaluation of Final Report.	027 276	0.65	6.58		
	Weber, Wilford A.	A Guide to Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers.	035 604	0.65	3.29		
	Weber, Wilford	A Study of the Feasibility of the Refined Syracuse University Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers. Final Report.	042 723	0.65	13.16	HE5.87:SY8	3.00
Teachers College Columbia University		The Teacher-Innovator: A Program to Prepare Teachers. Section I and II.	027 284	0.65	19.74	FS5.258:58021	4.50
		Summary of the Teacher-Innovator: A Program to Prepare Teachers.	033 054	0.65	3.29		

ITUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
Teachers College (cont.)	Joyce, Bruce R.	A Guide to the Teacher-Innovator: A Program to Prepare Teachers.	035 605	$0.65	$ 3.29		
Univ. of Toledo	Dickson, George; And Others	Educational Specifications for a Comprehensive Elementary Teacher Education Program. Volume I, The Basic Report. Final Report.	025 457	0.65	9.87	FS5.258:58023 (Vols. I & II)	7.00
	Dickson, George E.	Educational Specifications for a Comprehensive Elementary Teacher Education Program. Volume II, The Specifications. Final Report.	025 456	0.65	23.03		
		Summary of the Educational Specifications for a Comprehensive Elementary Teacher Education Program. Summary of the Final Report.	035 595	0.65	3.29		
	Wiersma, William	A Guide to Educational Specifications for a Comprehensive Elementary Teacher Education Program.	035 607	0.65	3.29		
	Dickson, George	The Feasibility Study of Educational Specifications for the Ohio Comprehensive Elementary Teacher Education Program. Phase II.	042 721	0.65	29.61	HE5.87:0H3	6.25
Univ. of Wisconsin	Kean, John M., ed.	Wisconsin Elementary Teacher Education Project. Vols. I-IV.	036 678	0.65	26.32	FS5.258:58025	5.75
		Wisconsin Elementary Teacher Education Project. Feasibility Study: Program in Support Systems, Vol. V. [Vols. I-IV are about Phase I of the project.]	043 585	0.65	6.58	HE5.87:W75 V. 5	3.50
		Wisconsin Elementary Teacher Education Project. Feasibility Study: Pricing and Economic Analysis, Vol. VI.	043 586	0.65	13.16	HE5.87:W75 V.6	2.00

INSTITUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
ERIC Clearinghouse on Teacher Education	Burdin, Joel L., Editor; Lanzillotti, Kaliopee, Editor	A Readers' Guide to the Comprehensive Models for Preparing Elementary Teachers Teachers.	034 076	$ 0.65	$ 13.16	(Also available from AACTE, No. 1 Dupont Circle, Washington, D.C., 20036 ($4.00)	
Ohio State Univ.	Cruickshank, Donald R., with others	The Ohio State University Analysis of the Nine Comprehensive Teacher Education Models (CETEM)	043 573	0.65	9.87		
AACTE and Temple Univ.	Engbretson, William	Analysis and Evaluation of Plans for Comprehensive Elementary Teacher Education Models.	027 268	0.65	9.87		
Office of Education	Fattu, Nicholas A.	Nine Proposals for Elementary Teacher Education. A Description of Plans to Design Exemplary Training Programs.	018 677	0.65	6.58		
System Development Corporation	Klatt, Judith; LeBaron, Walt	A Short Summary of Ten Model Teacher Education Programs	038 356	0.65		FS5.258:58036	0.45
System Development Corporation	LeBaron, Walt	Systems Analysis and Learning Systems in the Development of Elementary Teacher Education Models.	037 425	0.65		FS5.258:58035	0.45
System Development Corporation	LeBaron, Walt	Elementary Teacher Education Models Analyzed in Relation to National Accreditation Standards.	041 857	0.65	3.29	(Available from AACTE $1.00.)	
ERIC Clearinghouse on Teacher Education	Schaefer, James	A Bibliography of References Used in the Preparation of Nine Model Teacher Education Programs.	031 460	0.65	3.29		

INSTITUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
Stanford Univ.	Shaftel, Fannie R.; And Others	The Stanford Evaluation of Nine Elementary Teacher Training Models.	037 395	$ 0.65	$ 3.29		
System Development Corporation.	Silberman, Harry	Some Comments on Nine Elementary Teacher Education Models	029 813	0.65	3.29		
System Development Corporation	LeBaron, Walt	Techniques for Developing an Elementary Teacher Education Model.	039 199	0.65	3.29		
System Development Corporation		Analytic Summaries of Specifications for Model Teacher Education Programs.	037 422	0.65		FS5.258 :58037	2.00
Ohio State Univ., Research Found.	Cruickshank, Donald	Blueprints for Teacher Education: A Review of Phase II Proposals for the USOE Comprehensive Elementary Teacher Education (CETEM) Program. Final Report.	045 581	0.65	6.58		

ITUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO PRICE
Univ. of Georgia (all bulletins cited below relate to Univ. of Georgia Model).		"Teacher Education Models" [entire issue], Journal of Research and Development in Education, 2:1-140; Spring 1969.				
		"Elementary Teacher Education Models: Phase II--Feasibility" [entire issue], Journal of Research and Development in Education, 3:1-128; Spring 1970.				
	Johnson, Charles E.	The Model Program from the Student's Viewpoint. GEM Bulletin 69-15.	040 919	0.65	3.29	
	Johnson, Charles E.	Criteria for Validating the Feasibility of the Components of a Model Teacher Education Program. GEM Bulletin 69-24.	040 920	0.65	3.29	
	Bauch, Jerold P.	PM Evaluation Guidelines. GEM Bulletin 69-13.	040 921	0.65	3.29	
	Bauch, Jerold P.; Shearron, Gilbert F.	The Elementary School of the Late '70's. GEM Bulletin 69-23.	040 922	0.65	3.29	
	Ayers, Jerry B.	Selected Data on Teacher-Pupil Personnel for GEM Feasibility Study: Report I GEM Bulletin 69-2	040 923	0.65	3.29	

ITUTION	AUTHOR	TITLE	ED No.	MF	HC	GPO PRICE
Univ. of Georgia (all bulletins cited below relate to Univ. of Georgia Model).	Johnson, Charles E.; Shearron, Gilbert F.	Selected Teacher Performance Specifications Generally Applicable to Teacher Education Curricula. GEM Bulletin 69-1.	040 924	0.65	$3.29	
	Johnson, Charles E.; Johnson, Cecil G.	Theoretical Consideration for Project Costs. GEM Bulletin 69-18.	040 925	0.65	3.29	
	Duncan, Glenn E.; Bauch, Jerold P.	The Use of Computers and Simulation in the Development and Management of GEM. GEM Bulletin 69-14.	040 926	0.65	3.29	
	Rowe, Peter J.; Bauch, Jerold P.	Candidate Selection Criteria for a Model Teacher Education Program. GEM Bulletin 69-27.	040 927	0.65	3.29	
	Ricker, Kenneth S.; Hawkins, Michael L.	Reactions of College Students to a Science Education Proficiency Module. GEM Bulletin 69-8.	040 928	0.65	3.29	
	Payne, David A.	Estimating Costs for Development of Candidate Performance Evaluation Procedures. GEM Bulletin 69-7.	040 929	0.65	3.29	
	Ayers, Jerry B.	Specifications for New College of Education Facilities. GEM Bulletin 69-5.	040 930	0.65	3.29	

UTION	AUTHOR	TITLE	ED No.	MF	HC	GPO	PRICE
Univ. of Georgia (all bulletins cited below relate to Univ. of Georgia Model).	Ayers, Jerry B.; Finnegan, Robert J.	Selected Cost Data on Elementary Education Students at The University of Georgia. GEM Bulletin 69-3.	040 931	$0.65	$3.29		
	Johnson, Charles E.; Duncan, Glenn E.	Bibliography of Selected References Concerned with the Applications of Systems Technology in Education. GEM Bulletin 69-25	040 932	0.65	3.29		
	Shearron, Gilbert F.; Johnson, Charles E.	Specification Worksheets for Cognitive Processes and Affective Behaviors. GEM Bulletin 69-22.	040 933	0.65	3.29		
	Shearron, Gilbert F.; Johnson, Charles E.	Specification Worksheets for Behaviors Drawn from Educational Principles. GEM Bulletin 69-21.	040 934	0.65	3.29		
	Shearron, Gilbert F.; Johnson, Charles E.	Specification Worksheets for Behaviors in the Arts and Sciences. GEM Bulletin 69-20	040 935	0.65	3.29		
	Shearron, Gilbert F.; Johnson, Charles E., Compilers	Specification Worksheets for Language Arts Behaviors. GEM Bulletin 69-19	040 936	0.65	3.29		
	Shearron, Gilbert F.; Johnson, Charles E.	A Prototype for a Competency Based Proficiency Module. GEM Bulletin.	042 693	0.65	3.29		
	Ayers, Jerry B.	Feasibility of Practical Laboratory Experiences: Report I. GEM Bulletin 69-4.	042 694	0.65	3.29		

ERIC	AUTHOR	TITLE	ED No.	MF	HC	GPO PRICE
Univ. of Georgia (all bulletins cited below relate to Univ. of Georgia Model).	Ayers, Jerry B.; And Others	An Exemplary Program in Higher Education for Chemists, Engineers and Chemistry Teachers. GEM Bulletin 69-6.	034 739	$0.65	$3.29	
	Ricker, Kenneth S.; Hawkins, Michael L.	Testing a Science Education Proficiency Module with College Students. GEM Bulletin 69-12.	042 695	0.65	3.29	
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