The University of California Cooperative Teacher Preparation Project (UCCTPP) began in 1971 as an effort to improve the quality and effectiveness of teacher education programs. UCCTPP is currently implemented through the cooperative efforts of the School of Education at the University of California at Berkeley and the Mount Diablo and Vallejo Unified School Districts. The project is designed to manage a much larger portion of the beginning teacher's experience than has heretofore been attempted. The project functions within an educational framework comprised of three themes: the learner, subject areas, and instruction. Instructional, administrative, and research models consistent with the themes are designed to: (a) improve the quality of teaching at all levels through self-assessment techniques, (b) establish administrative organizations and procedures that open up fresh possibilities for making educational decisions, (c) research the effectiveness of the project and its teachers, and (d) study basic research questions related to the teaching-learning process. Holistically, the UCCTPP is a longitudinal, unified K-12, preservice/inservice model committed to educational innovation and change, with a responsibility for providing evidence of this activity. (Author)
The University of California Cooperative Teacher Preparation Project (UCCTPP) represents a fresh instructional, administrative, and research approach to teacher education. Motivation for the approach derived from recognition of the great commonality among current and past teacher preparation programs, whereby the same or similar educational problems and difficulties are evident year after year.

To overcome many of the problems, the UCCTPP provides for longitudinal (three-year) interaction with beginning teachers (as compared to the typical nine-month preparation period), a unified K-12 program for teachers (as compared to the usual dicotomy between elementary and secondary training programs), school district/university partnership in screening and instruction (as compared to the separation and general lack of coordination between the two agencies), development of new methods for improving the quality of teaching through self-assessment (as compared to the typical external evaluation of beginning teachers by experienced teachers, supervisors, and administrators), and pre-service and in-service instruction (as compared to only pre-service programs).

The major objectives of the UCCTPP are to study ways to enable teachers to become on-going assessors of the quality of their own instruction and to provide instructional, administrative, and research models that other institutions can use to improve the quality of the educational enterprise.

Details of the models within the UCCTPP approach follow. An outline of personnel and a budget note are found on page 6.

**UCCTPP INSTRUCTIONAL MODEL**

Education has long needed a theoretical base or a descriptive framework from which to operate. The UCCTPP has developed and refined one possible framework comprised of three themes and represented by the logos on the following page.
One theme, the learner, encompasses the research information on the many horizons of human learning including attitudes, knowledge, skills, and intellectual stages of development. Another theme, instruction, includes in the broadest sense, anything that enables learning to take place, such as the physical and non-physical structuring of teaching and the verbal and non-verbal interactions among individuals. The third theme, subject areas, involves the organized knowledge and ways of knowing within the structures of the various content fields - mathematics, science, reading, and so forth. Although each theme can be taught as a discrete entity, it is clear that the quality of educational endeavors rests in the interaction of the three themes. To do less would be to diminish the quality of the enterprise.

By using developmental psychology as a basis for making decisions about the learner (e.g., Piaget and related research), by emphasizing process learning in the subject areas and the matching of content to developmental stages, and by employing instructional behaviors involving clinical procedures, the UCCTPP has integrated a philosophically consistent approach to educational ideas. Specifically, one would find in the program, beginning (student) teachers and experienced (master) teachers learning to utilize the clinical method to identify stages of intellectual development K-12, using their knowledge to select from content areas those experiences that have a high potential for success with individual students, and applying instructional skills that facilitate the learning while continuing to assess changes that are constantly taking place.

The instructional model is transferable to other teacher training institutions with or without the UCCTPP philosophy. The model allows other philosophical points of view to serve as bases for making decisions within the three themes.
Corresponding to the three themes are interactive books, called personal workshops, that are being developed and field tested in the UCCTPP. The books present an unusual instructional text format in that they invite the reader to participate actively with ideas, observations, and trials in actual school settings. Among the titles available or in development are four books on the learner (Classification Abilities, Conservation Abilities, Propositional Reasoning, Moral Judgment), two on instruction (Questioning Strategies, Responding Strategies), and three on subject areas (Science, Mathematics, Art). Although the books are self-directive and self-instructive, each is supported by manipulative materials, videotapes, films, individual conferences, group discussions, and teaching experiences for practice. Through these procedures, teachers become skillful in making audio and video recordings of their experiences and in assessing the effectiveness of their work.

It should be noted that the term assessment, as used within the context of the UCCTPP, is defined as the objective (non-judgmental, non-evaluative) collection and interpretation and information that can lead to rational instructional decisions. This word is in contrast to evaluation which implies value statements such as "correct," "incorrect," "good," or "bad." Such statements provide no information as to how one might proceed, whereas assessments provide information that can be used to guide what might be done next. A book on field research and assessment has been developed to aid teachers in becoming on-going assessors of their work.

UCCTPP ADMINISTRATIVE MODEL

Much of the administrative design of the project is derived from the previously described instructional model. Project members see that administrative decisions are made to serve and support the instructional model rather than hinder its operation through unchallenged rules and procedures. For example, although most people agree that in addition to good experiences it takes time, many years, to become a fine teacher, most programs continue to work with beginning teachers for less than a year "because that's the way it's always been done," and all instruction is compressed into time
slots within that short period "because that's the only way we can schedule instructors." This has proved ineffective. In spite of many initial administrative roadblocks (e.g., "You can't do that because it's never been done before" or "That's not the way things are done around here."), UCCTPP has altered the university's administrative procedures so that students can continue with the program for three years (see Appendix): the first year ends with the attainment of a teaching credential; the second and third years involve full-time employment coupled with a continuation of the instruction, support systems, and resources available during the first year. Beginning in the second year, teachers have the option to work toward an MA degree involving an intensive field study on one or more of the UCCTPP themes and within actual school situations or to attain unit credits that are recognized by school districts on professional growth scales.

Other administrative variances obtained from the university involve: the replacement of letter grades with assessment of performance procedures on a pass/not pass basis; the replacement of methods courses given within set times by instructors who are independent of the program with the aforementioned instructional model themes involving all personnel and spanning three years of participation; the replacement of a single credential with the student's option to obtain a dual credential; the establishment of a graduate quota for the project to insure graduate level openings for continuing participation.

The administrative model is formed by a cooperative consortium among university and community agencies, each providing its own expertise and resources. The agencies are the School of Education, the Lawrence Hall of Science, Mount Diablo Unified School District (suburban), and Vallejo Unified School District (urban). The model can be duplicated in any geographic region. Transfer only involves the idea that a consortium of talents and other resources can support teacher preparation. Transfer does not require that the details be identical with those used by the UCCTPP.

In the UCCTPP administrative model, the School of Education provides professorial
and supervisory faculty, support for the initial printing of the project's publications, and the administrative processing of university records. The Lawrence Hall of Science, an adjunct unit of the university, provides classroom and meeting facilities, shop equipment for construction of curriculum materials, and library resources. Other university resources are tapped as necessary. The School Districts provide: central office personnel as members of the UCCTPP administrative and instructional planning staff; instruction, workshops and demonstrations given by district personnel; schools in which practice teaching takes place (Schools adopt beginning teachers in sets of three or more). In addition, districts make a commitment to hire beginning teachers, providing openings are available. This commitment is crucial to the function of the administrative model for it insures the viability of the longitudinal program by maintaining students within a reasonable proximity to the university. Several unique advantages to the districts are derived from the commitment. First, beginning teachers can be placed in practice situations related to known openings, thus be specifically aided in their preparation for the positions. Second, after working with beginning teachers for a year, district personnel come to know them very well, thus feel confident in hiring them rather than unknown individuals applying for positions.

UCCTPP RESEARCH MODEL

Our research is directly related to each of or combinations of the instructional model themes. Various devices and techniques have been created in an attempt to assess educational quality, or lack of it, in both beginning and experienced teachers' abilities related to the learner, subject areas, and instruction. Videotapes are made of all beginning participants and periodically thereafter to provide a basis for assessing change (see Appendix).

All data collection efforts have three purposes. The first is to assess UCCTPP's effectiveness in enabling teacher effectiveness. The second is to serve as a source of information that can be fed back to teachers for their own assessment. The third is to better understand the complexity of the teaching-learning process.
Within the research model is a graduate program comprised of students enrolled at the university for higher degrees. These students become involved in research questions within the context of the UCCTPP and some carry out MA and doctoral studies that contribute to the project's purposes. Other students learn research techniques or become trained in specific research methods by working as research assistants for the project. Thus the project serves as a training ground for MA and doctoral candidates in various fields.

To date, UCCTPP research on the learner has extended the work of Jean Piaget and his colleagues, especially in the areas of adolescent thinking and developmental stages related to the senses (e.g., seeing, hearing, feeling). Research on instruction has investigated whether or not teachers can become flexible in their questioning styles, what effect different questions have upon students' learning, and an examination of questioning strategies used in high school biology textbooks and elementary school science textbooks. Research in subject areas has brought about the development of a criterion-referenced, individualized program for preparing elementary school teachers to teach science. In gathering the research data, more than 70,000 random samples of 367 classroom settings have been collected and are currently being studied.

UCCTPP PERSONNEL 1974

The following alphabetical listing is of personnel currently working with the project. Titles refer to university records and do not necessarily correspond to actual function.

Henry Cleveland, Media Supervisor (5/8)  Nat Pearson, Supervisor (Full)
Jettye Fern Grant, Read. Special. (1/4)  Ken Peterson, Supervisor (Full)
Larry Lowery, Associate Professor (1/2)  Rich Ponzio, Supervisor (Full)
John 'atlin, Assistant Dean, Lecturer (1/8)  Bill Rupley, Math. Special. (1/4)
David Miller, Associate Professor (1/2)  Tessa Wilk, Supervisor (Full)

The number of beginning and experienced teachers is cumulative (see Appendix).

UCCTPP BUDGET 1974

The UCCTPP does not have a budget per se. It was organized within existing resources so as to make the transferability of ideas feasible to other agencies already in existence. Full-time and part-time employee positions are allocated to the project through the University of California School of Education.
### PILOT YEARS

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<tr>
<td><strong>GROUP A:</strong></td>
<td>29 Credential candidates begin pre-service year, earn teaching credential. 29 experienced teachers.</td>
<td>29 credentialed beginning teachers in first year of teaching.</td>
<td>Formal program completed; continue employment in district to become experienced teachers in model program.</td>
<td>Continue as a pool of experienced teachers for the model program.</td>
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<td><strong>GROUP B:</strong></td>
<td>Recruit.</td>
<td>30 new credential candidates and 30 new experienced teachers begin another pre-service year.</td>
<td>30 credentialed beginning teachers.</td>
<td>Continue as a pool of experienced teachers for the model program.</td>
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<td><strong>GROUP C:</strong></td>
<td>Recruit.</td>
<td>32 new credential candidates and 32 experienced teachers begin pre-service year.</td>
<td>32 credentialed beginning teachers in first year of teaching.</td>
<td>Formal program completed; continue employment in district and join pool of experienced teachers.</td>
</tr>
<tr>
<td><strong>GROUP D:</strong></td>
<td></td>
<td></td>
<td>45 new credential candidates and 45 experienced teachers begin pre-service year.</td>
<td>45 credentialed beginning teachers in first year of teaching.</td>
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### Number of Participants 1971-76
- UCCTPP beginning teachers, preservice and inservice: Total 137
- School Districts experienced teachers, inservice: Total approx. 200
- Children and students: approximately 22,000.

### APPENDIX: UCCTPP LONGITUDINAL PLAN