

DOCUMENT RESUME

ED 272 451

SP 027 609

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**TITLE** Proposed Center for Research on Teacher Education. NIE Planning Grant, Final Performance Report.  
**INSTITUTION** San Francisco State Coll., Calif. School of Education.  
**SPONS AGENCY** National Inst. of Education (ED), Washington, DC.  
**PUB DATE** [85]  
**NOTE** 27p.  
**PUB TYPE** Reports - Descriptive (141)

**EDRS PRICE** MF01/PC02 Plus Postage.  
**DESCRIPTORS** Change Strategies; Institutional Cooperation; Program Development; \*Research Coordinating Units; Researchers; \*Research Needs; \*Teacher Education; Teacher Educators

**ABSTRACT**

This report describes plans for implementing a proposed center for research on teacher education. The proposal for the Center was a collaborative effort involving the 19 campuses of the California State University System to develop a national base for research on teacher education. The first section describes briefly the efforts undertaken to develop this proposal. The Center proposal is organized around four points of collaboration among scholars and practitioners. The Center would: (1) create a diverse and extensive field laboratory for research; (2) involve teacher education practitioners as collaborators in all of the research projects; (3) create research opportunities for practitioners and solicit questions of concern to them; and (4) provide research expertise to support the research activities generated by the practitioners. A framework for knowledge-based reform is constructed around the three stages of teacher education practice: recruitment, professional development, and induction. Section two of the report details plans for executing research projects. A set of planning premises are presented. These take into consideration the following factors: (1) social change; (2) core values; (3) the nature of schooling; (4) the changing role of teachers; (5) the interagency dependence of schools and institutions of higher education; and (6) the impact of technology on all of these factors. A seven-page list of references is appended. (JD)

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ED 272451

Final Performance Report  
NIE Planning Grant  
Proposed Center for Research on Teacher Education

San Francisco State University  
School of Education  
Henrietta Schwartz, Dean

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Final Performance Report  
NIE Planning Grant  
Proposed Center for Research on Teacher Education

San Francisco State University  
School of Education  
Henrietta Schwartz, Dean

This report describes our plans for translating the planning grant, awarded by the National Institute of Education, into a set of achievements which can improve teacher education. The report is broken into two sections. The first is a brief description of the efforts undertaken to develop this proposal. The second describes in detail our plan for executing research projects. A summary of accomplished goals, as outlined in the Planning Grant for a Center for Research on Teacher Education, concludes the report.

### Planning Efforts

The proposal for the Center was a collaborative effort involving the 19 campuses of the California State University System to develop a national base for research on teacher education. Our proposal for a planning grant was distinguished by two key features: our ability to use a laboratory of 19 teacher education programs to test research propositions, and our proposal to conduct major research in order to look at the complex system of teacher education. The sections which follow describe our intended methods for carrying out the ideas that were first stated in the planning proposal.

Two important issues were critiqued. The first was the readers' consideration that our 19 campus system, while an impressive laboratory for research on teacher education, nevertheless represented a single system for teacher education and therefore might prove too parochial for establishing a knowledge-base useful on a national level. The second problem readers noted was the perceived lack of research expertise within the CSU System necessary for carrying out the work of the Center.

The proposal addressed both of these problems. The scope of the Center's work would have been extended beyond the 19 campus system to include seven campuses outside of California as well as two NIE regional laboratories. The seven campuses would have been Roosevelt University, Chicago, Illinois; State University of New York, Albany; University of Houston at Clear Lake; University of Missouri at Columbia; University of Nebraska, Lincoln; University of Pittsburgh; and the University of Utah. The two

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laboratories would have been the Far West Regional Lab and the Northwest Regional Lab. The role of each institution was described in the proposal as part of the projects and activities, but each site offered a setting for research which represented a teacher education system not found in the CSU and a cadre of expertise for the work of the Center.

The lack of demonstrated research capacity within the CSU system was addressed in three ways which are supportive of each other. The CSU System approved three new tenured faculty positions which are to be filled by distinguished research scholars in teacher education. If funded, the scholars who filled these positions would have been assigned to the Center and their salaries paid by campuses with an augmentation from the Chancellor's office for salary and secretarial support. The second approach to addressing the issue of research has been to note the existing capability in the system. We described a number of CSU faculty who have distinguished records, competence in research, and an interest in working with the Center. The third approach would have been to develop an advising and consulting system that integrated the work of scholars and practitioners.

The need for research in teacher education is not a unique problem to the CSU System, rather it is a problem to the field of teacher education. We believe it stems both from the culture of teacher education and from the practice of teacher education. The low esteem which the University generally has for teacher education, the redirection of funds generated by teacher education to other programs, and the heavy teaching load of most teacher educators work against building a strong research base. Researchers, to a great extent, are not attracted by teacher education, nor are they well supported by it. A number of the institutions which have developed a cadre of researchers in teacher education also have a select set of students who they train and schools into which these teachers go to work (e.g., Stanford; University of California, Berkeley; University of Chicago, Illinois). Research at these institutions, although academically productive, may have little direct impact on the practice of teacher education. Additionally, since teacher education is viewed, at best, as an instrumental art the relationship between research and practice may be unclear for both researcher and practitioner. Thus, we felt the research capacity of teacher education was an important problem to be addressed by our Center. To do this, we organized our Center proposal around four points of collaboration among scholars and practitioners.

1. The Center would create a diverse and extensive field laboratory for research.
2. The Center would involve teacher education practitioners as collaborators to all of the research projects.
3. The Center would create research opportunities for practitioners and solicit questions of concern to them.
4. The Center would provide research expertise to support the research activities generated by practitioners.

We believed the CSU Center would serve as a model for the development of collaboration between researchers and practitioners, leading to the development of a knowledge base which will be used to improve the practice of teacher education.

The full CSU Center proposal was developed by three groups of practitioners and scholars. The membership of these groups can be seen in detail in Appendix A. A Coordinating Committee was established to identify and prioritize the concerns of teacher educators as well as to develop a plan for collaboration among the CSU campuses. This committee consisted of Deans of Education from the CSU campuses, representatives from the Chancellor's Office, and members of the Cadre of Researchers. The Coordinating Committee first met to identify important issues for research in teacher education and to establish priorities. During the planning period the Coordinating Committee met on five occasions (March 25, May 20, July 14 & 15, and July 22).

The Cadre of Researchers included Ralph Tyler, Robert Bush, Lee Shulman, and Judith Little and met three times (April 26, May 10, and June 11) to critique the issues and priorities established by the Coordinating Committee in addition to meeting with us over the course of the planning period.

A National Panel of Experts was convened to provide a final critique of the proposal development. This panel met on July 15, 1985 which enabled them to review the entire plan of the proposal yet left time for modifications to be made. The panel consisted of expert researchers and practitioners from around the nation and formed the basis of a National Advisory Panel to the Center.

#### Addressing Problems of Underrepresented Groups:

The composition of the staff, the diversity of the CSU, and the commitment of the CSU System to equal attention to under-

represented minorities, women, the elderly, the handicapped, and those who live in rural areas. Letters of endorsement from the Education Network for Older Adults and from Robert Havighurst (sociologist, anthropologist, gerontologist, and scholar) support this statement. Two members of the proposal writing staff were members of the CSU Commission on Hispanic Underrepresentation and two are prominent special educators.

We proposed three projects which specifically address problems of under-represented groups. (1) In the Ten School Study of Recruitment, we proposed to investigate the attitudes about careers in the teaching of minority students. (2) The mainstreaming study was an effort to improve the training of classroom teachers who teach handicapped children. (3) Using Technology to Improve Mentoring, investigated ways to improve the delivery of training to teachers in rural schools.

#### Plan of Operation for Research Projects

The research mission of the Center is summarized by the following goal statement:

To create new knowledge for the comprehensive reform and improvement of teacher education by conducting programs of research which can provide an integrated body of knowledge.

This goal declared our intention to undertake research in areas which we considered to be on the cutting edge of reform and improvement. It also declared our intention to create a framework for understanding teacher education by systematically organizing knowledge and taking advantage of past and present practices on which to base our understanding.

In order to apply the knowledge base of teacher education in a way that could improve practice, build upon an existing base of knowledge, and provide leadership and synthesis for future research and development efforts we established a framework for knowledge-based reform. Significant patterns in the data collected provide the base necessary for constructing improvement.

The framework, as shown in Chart I, is constructed around the three stages of the practice of teacher education: Recruitment, professional development, and induction. Analyzing the progress of a candidate through the three stages brought a systematic and organized approach to critiquing a field so necessarily indebted to insight. The practice of teacher education must be studied as

a human performance, an institutional performance, and a cultural statement. We, therefore, proposed a framework that would draw on psychological, sociological, and anthropological perspectives.

The five components of the framework are:

1. **Culture** - The structure, function, content, and process of teacher education as it takes place in the milieu of the university, school systems, and public arena.
  - a. Structure refers to the pattern of formal and informal social organizational elements in the milieu.
  - b. Function is the pattern of interconnections between the social structure and the purposes of the individuals and institutions.
  - c. Content is the pattern of reality which governs the tenacity and intensity of relations among individuals in the system. This consists of the hardware, software, and human resources of the system.
2. **Recruitment** - The stage in which the individual identifies, explores, and gains access to training for a career in teaching.
3. **Professional Development** - The stage in which the candidate interacts with the process and content of the teacher education curriculum. We refer here to curriculum in its broad sense (McCutcheon, 1982).
4. **Induction** - The state in which the teacher moves into the school and is challenged to supply the knowledge and skills developed during the preservice period. We view this phase as the first three years of teaching.
5. **Quality Control** - These are the processes of the system which select and warrant progress of students through the three stages.

These five components provide the basis for the development of research programs for the Center. Chart I illustrates the organization of research programs. All programs have three emphases; to understand the phenomena of concern, to establish procedures for improving practices, and to test procedures in field laboratory environments. The research projects of the Center were classified according to emphasis. For example, the research project called "Ability to Learn" is in the Professional Development Program and moves from an emphasis on establishing procedures for improvement in year 1 to an emphasis on testing

effects in years 2 and 3. Note that some projects were shown as a multi-year effort and other projects were shown only for the first year. In each case the single year efforts were viewed as exploratory planning efforts in which the achievements of the first year would have been evaluated to determine whether the direction warranted further work. The activities of the multi-year projects were described in detail in the proposal for the first year and outlined for year 2 and general expectations were identified for later years.

The proposed center had five Program Areas plus an additional project type. The additional project type was "Faculty Research Opportunities." This project focused on generating collaboration between researchers and teacher education practitioners, and also on soliciting and supporting practitioners' ideas for research efforts. The topics of research supported by this project changed each year. Thus, in one year this project might have been a part of the Recruitment Program and in the next, a part of the Professional Development Program. Because the topic for research in the first year of the Center was to have been "Subject Matter Knowledge in Teacher Education," the faculty research opportunities would have been part of professional development.

It is not feasible for the Center for Research on Teacher Education to undertake comprehensive studies of each program and emphasis yet the steps outlined in the preceding framework provide a focused and applicable beginning. The link between theory and practice is an essential, albeit broad one; we intend addressing issues as far as our resources permit. We envision more indepth studies on induction and quality control being mounted by the CSU system as it continues to experiment with and evaluate innovative efforts in teacher education. Our efforts will continue to focus, of course, on sites and issues in California and we trust that future researchers will benefit from CSU's contributions.

The mission statement of the proposal described our reasons for focusing on the culture of teacher education as an initial area of concentrated study. In sum, it was chosen because of the lack of a knowledge base for understanding the system of teacher education and the urgent need for such a knowledge base if the on-going and imminent changes are to be positive.

#### Summary of Goals Accomplished

Figure 1 identifies the goals and objectives revised to meet the new timelines established by NIE in January 1985. It is the



staff's opinion that the delay and confusion surrounding the guidelines for the competition for the Research Centers was demoralizing and unnecessary, given the minimal nature of the changes in the substance of the guidelines.

We were particularly pleased with the response to CSU requests for collaborative arrangements with universities and scholars across the nation. The most rewarding successes for the staff and the CSU Chancellor's office were:

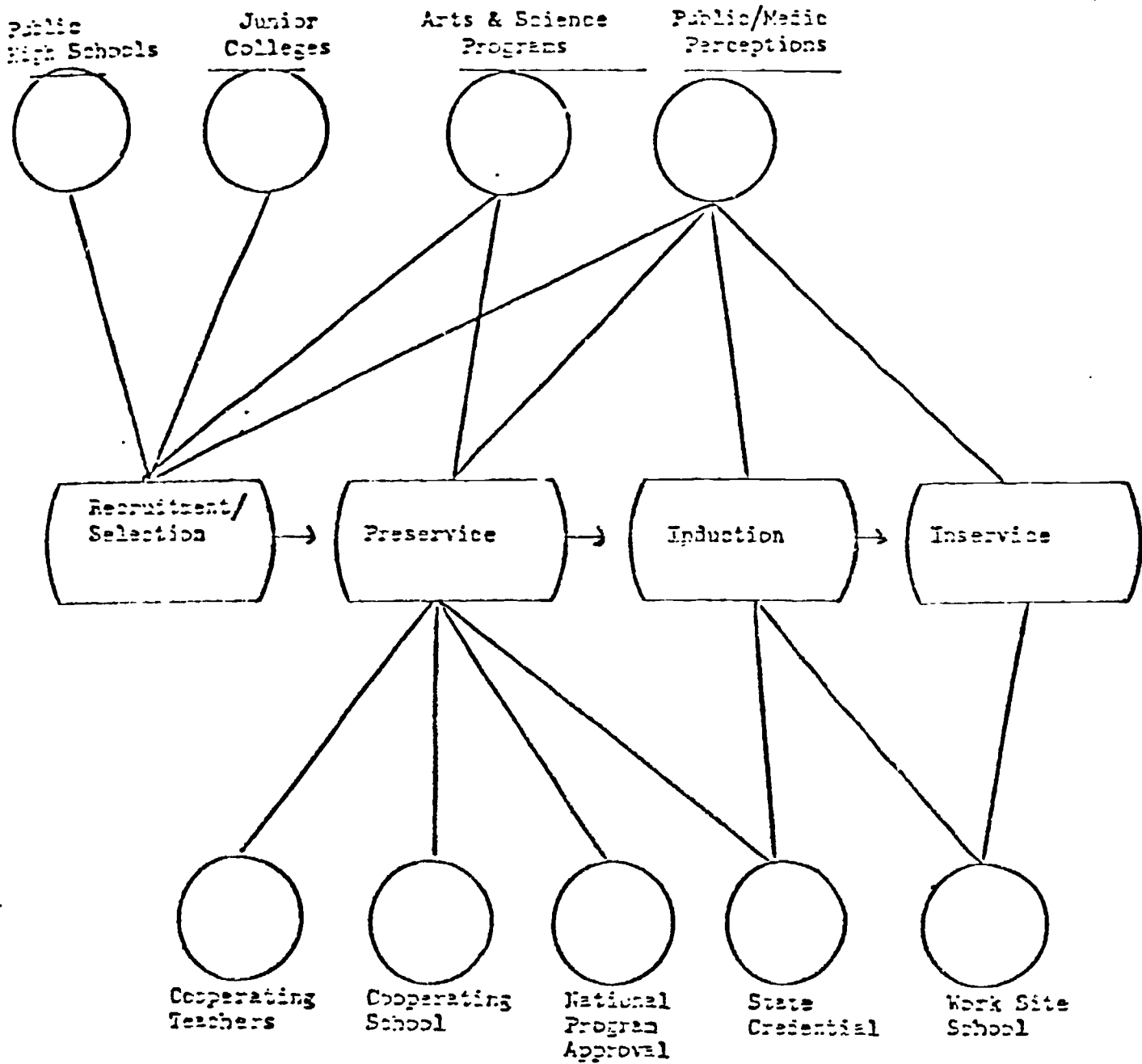
- \* Joint development of a research plan for ten campuses
- \* An information-sharing system across the nineteen CSU campuses
- \* Recognition of the resources needed to support an R & D mission in the CSU and its importance
- \* Establishing a data bank of faculty expertise in R & D in teacher education
- \* A focus on and awareness of ongoing R & D in teacher education in the CSU
- \* The successful completion of all goals and objectives shown in Figure 1, and the submission of a detailed research proposal

CHART I.1

Building Knowledge for the Reform of Teacher Education

Program	Objectives	Projects and Activities				
		Year 1	Year 2	Year 3	Year 4	Yr 5
CULTURE	1 Understanding	Culture International Education	Culture	Culture		
	2 Establish Procedures for change			Action Plan		
	3 Test Effects					
RECRUIT- MENT	1	10 School Recruit	10 School Recruit			
	2					
	3					
PROFES- SIONAL DEVELOP- MENT	1	10 School P D	10 School P D			
	2	Ability Past Science	Past			
	3	Mainstream	Ability Science Mainstream Decision Making	Ability Past		
INDUCTION	1	10 School State Init.	10 School State Init.	State	State	
	2	Technology				
	3					
QUALITY INDICATORS	1	10 School Quality Control Paper				
	2	Database System				
	3					

FIGURE I.1



A continuous view of teacher education and related systems.

## "A Futures Paper"

Excerpted from the Proposal for a Center  
for Research in Teacher Education

Submitted by the California State University  
to the National Institute of Education

San Francisco State University  
School of Education  
Henrietta Schwartz, Dean

California has been identified by Naisbitt in Megatrends (1982) as one of three "megastates" and one of five "bell-wether states" that lead the nation in social innovation and technology. Indeed, it is a microcosm of the nation in many aspects; it has cultural diversity, social and economic problems, political concerns, and so on. Similarly, the California State University reflects the strengths and problems of public schools and teachers. Its preservice and inservice programs for teachers are as productive, and as troubled, as any on the national scene. California is also moving rapidly on all fronts in education to make changes, for example major reform legislation was enacted in 1983 under Senate Bill 813. California foreshadows national trends by three to five years.

California houses one of the critical resources of our post-industrial society--the information processing industries. In The Third Wave (1983) Toffler indicates that in education the trend is shifting from the concept of finishing an education with a degree to looking at education as information management in the process of lifelong learning. California will continue to become more culturally diverse, as will the nation, because access to information promotes diversity and social and economic change. California and the nation are becoming aware of the importance of literacy. The back-to-basics movements across the country and the attention given to the report of the National Commission on Excellence in Education, A Nation at Risk, points to education as the chief domestic issue for the next decade. Survival--individual, institutional, and national--will depend primarily on how well we can cope with new roles and new relationships. Any planning activity will have to have a unified perspective which takes into consideration many factors: social change, core values, the nature of schooling, the changing role of the teacher, the interagency dependence of schools and institu-

tions of higher education, and the impact of technology on all of these. Following are a set of planning premises, drawn from the work of futurists and philosophers, which underlie this proposal.

### Crucial Social Considerations

- \* Increased discontinuity and change in current times
- \* Need to adapt to increased interdependence of events, nations and people in the coming decades
- \* Continued acceleration in the rate of change requiring re-training for jobs several times during a lifetime for a third of the population
- \* Continued acceleration in requirements for high-tech knowledge and skill
- \* Continued need for knowledge of cultures in order to facilitate group identity
- \* Continued need for information processing skills
- \* Development of alternative energy sources
- \* Reexamination of concepts of growth
- \* Increased crowding, hunger, and gaps between groups
- \* Continued pressures for human equity
- \* Changing concepts of work and leisure
- \* Political problems and threats to democracy
- \* Movement toward a post-extravagant society
- \* Increased state influence on services such as teaching and teacher education
- \* Continued need for attention to and concern for human interactions among nations and between adults and children

### Changing Concepts of Education and Schooling

- \* Schools used to be the chief socialization agents outside of the home, and still are in most areas.
- \* Public confidence in the schools as social change agents and educators has eroded and will continue to erode until there is noticeable positive change.
- \* Schools are social systems composed of complementary role

sets, defined by institutional expectations and filled by individuals with unique needs.

- \* Teachers must understand the purposes, and potential of a school within its social context.
- \* Schools must work with other agencies in the community, the university, business and industry in collaborative arrangements to effectively educate for a high tech, information-based society.
- \* Microcomputers and other forms of technology will become part of school life and transform the curriculum and the role of the teacher.

#### The Role of the Teacher

- \* Teachers will continue to be role models for children.
- \* Teachers will continue to be socialization agents for many minority and immigrant children, thereby leading to social integration and participation in the culture of the classroom and society.
- \* Teachers will be information specialists, delivering instruction and seeking learning outcomes through an array of high tech and time-honored devices--from the computer and video disc player to the chalkboard--and will continue as managers of information about students (grades, attendance, etc.).
- \* Teachers will continue to supervise students and teach them to behave in socially responsible ways through activity-based instruction.
- \* Teachers for the 1990's must be skilled in critical thinking and problem solving if they are to provide youth with these necessary skills in an information society and a democratic nation.

#### Preparing Teachers at Universities

- \* Preservice and inservice must be viewed as sequential stages on a continuum of career-long professional education.
- \* Research findings must be presented for use by various participants in teacher preparation programs.
- \* Longer induction periods with supervised internships in laboratory or portal schools must be part of teacher preparation programs.
- \* Universities must work closely with the K-12 system and

the community in the design and delivery of teacher preparation programs.

- \* Critical thinking and a knowledge of aspects of cultural heritage, as well as technology and information processing must be built into teacher preparation.
- \* Experimentation with new roles must be supported, such as the Professor-in-Residence supervising interns in portal schools while working with resident teachers and administrators on school effectiveness projects.
- \* Teacher education must be discussed.

### The Impact of Technology

Technology is a cultural universal because it is a body of knowledge which has always been an important part of teacher training. Candidates for teaching credentials learn to apply principles of psychology, to implement instructional strategies in lesson plans, and to employ systematic methods for bringing about learning. An assumption of our planning efforts is that the new information technologies (microcomputers, interactive video, telecommunications, etc.) will have a major impact on schools, as on society, and will become a major issue in the study of teacher education.

Over the past five years new technologies have dramatically increased in power and accessibility and most experts predict even greater gains in the future. These new technologies offer a vast potential for creating rich educational experiences (e.g., vivid and controlled simulation). The use of these technologies can provide individualized, self-paced, and active learning experiences which approach the unrealized ideal implied through most theories of learning (Bork, 1984).

If the work of schools is to benefit from technological advancement, teachers must be educated to know when and how to use the tools. The potential implications for teacher training are great. Some of the broad areas with which teacher training must be concerned are:

- \* Society - because of these technologies, professions into which students move will require new skills. Students will need new skills for collecting, processing and storing information.
- \* Schools - telecommunications may allow for smaller schools while maintaining levels of expertise in foreign languages and the sciences. Also, new relationships may be possible between school, home, and work.
- \* Role of the teacher - the teacher's role may shift from

group leader and lecturer to consultant and problem solver; classrooms may be organized around work stations rather than rows of desks and a chalkboard and instruction may be targeted at learning needs rather than the group within which the student's age places him/her.

- \* Role of universities - dramatic changes may be required in the way teachers are trained. These changes relate to the types of changes which can be expected in the role of the teacher. Montague stated that "to change, we must experience change." Certainly new roles require new training experiences. The changes may suggest curriculum and organizational changes for teacher training institutions.

In addition to the national and local trends, education (and particularly teacher education) faces some serious choices over the next decade about the composition of its work force.

#### The Five Dilemmas: Knowledge of Relevant Problems in Educational Practice

America is a multi-cultural nation harboring a core of mainstream beliefs and behaviors which most cultures display and by which they are stereotyped, like a common language, or an accent, or an attitude. However, not all citizens of Los Angeles speak English, more people speak Spanish in Los Angeles than in Acapulco; not all Bostonians say "Hahvud" instead of Harvard; not all Chicagoans are gangsters. In the same respect, there is really no "American" public school system as John Goodlad has pointed out in his massive A Place Called School (1983). Rather, there are some common starting points and some federal, state, and local regulations to which each school responds in a unique way. This is one of the problems any educational reform movement in this country faces--the time-honored tradition of local control of education. The uniqueness of each state, municipality, and school building responding to reform initiatives allows for infinite variations. The reform can proceed at very different rates in California, New York, Illinois, Nebraska, Texas and Utah, and not at all in other areas of the country. The universal element in all of these reforms is that they must in some way respond to the five dilemmas before the renaissance can proceed. One advantage of a nineteen campus system such as the CSU (and the nine education agencies "hooked in" across the nation) would be that every campus and laboratory gets the same message at the same time.

This is an exciting time in American education and in teacher education. Major pieces of reform legislation in education have been passed and are now in the process of being implemented in 43 states but, unless attention is given to the five dilemmas, educators shall have missed the opportunity made possible by the many reports and the national attention.



Certainly, the brightest and best of college students will want some response to these paradoxes to illuminate research findings and guide development efforts. Briefly, they are:

1) Equity vs. Excellence

Most of the major reports concerning the state of education and teacher education have recommended raising entry standards for teaching and teacher preparation programs. Many states have individual exit examinations for credentialing purposes and all have program approval mandates for teacher education programs. However, teaching has historically had relatively flexible admission and exit standards and has been the road to upward social and professional mobility for those who had been previously excluded from a share of the opportunities of the mainstream society. Will raised standards exclude minorities, older adults, naturalized citizens, and others whose skills and talents are useful in schools but do not raise points on standardized tests? On the other hand, if standards are not raised how will teaching and teacher education ever achieve professional status and first-class citizenship in the professional and academic communities? Furthermore, if teacher educators and the teaching corps overlook the intellectual calibre of those entering the profession, are they willing to be responsible for the next two decades of education and its consequences? Creative ways are called for to combine the principles of equity and produce excellent high quality teacher education programs.

2) Egalitarianism vs. Differentiation: Career Ladders for Teachers

One of the core values of the teaching profession in public schools is a teacher is a teacher is a teacher. Teacher associations and unions bargain for a single pay scale, standardized hours for classes, and preparation time; the only differences in salary are based on seniority. One teacher's opinion and contribution in the formal structure of the school is equal to any others. But the reform legislation, researchers, and even one large union are calling for career ladders, differentiated rewards as a teacher displays special skills, and initiative. Some legislation calls for mentor/master teachers with more pay and greater responsibilities; some have suggested that public school teachers adapt the university faculty ranking system. As one talks with individuals who have recently assumed the role of mentor/master, one hears how they deliberately downplay their new positions in working with their colleagues. It is evident that the egalitarian tradition is hard to overcome.

3) Teaching: Art or Science?

This dilemma is a bit like the nature/nurture paradox. Are

artists born or trained; are teachers born or trained? There are those who would say that teaching is an instrumental or practical art, that the acts in teaching are too complex to be reduced to a formula. There are others (Berliner, 1984) who maintain that over the last twenty years we have established a core of research findings which detail the scientific basis for teaching as an art. One must learn the techniques and practice them before one can become a virtuoso in any art form. The same can be said for teaching. The problem is that we have not had a body of research in teacher education programs or on teachers in training. Available information is based on research done with teachers in practice. We know what good teachers do, the question is: can students be trained to do what good teachers do or must some basic aptitude be present before training?

#### 4) The Curriculum - Standardization vs. Individualization?

Recent reports call for more standardization in the content of the curriculum at the K-12 level as well as for the teacher preparation programs. One suggests that the "mess" in teacher credentialing standards across the states in content areas be resolved by requiring a national teachers' examination certification. This strikes at the heart of the academy's tradition of academic freedom, the right of the professor to teach without restraints, developing curriculum and structuring the delivery as he/she wishes within peer-determined limits. Credentialing of and legislative mandates about teacher preparation programs reduce the autonomy and enhance standardization. In the role of protector of the commonweal state agencies will continue to move toward standardization of curriculum and teacher preparation and, in the name of academic freedom, university faculty and public school teachers will resist.

#### 5) The Focus of Instruction

Should the focus of attention rest on the curriculum or the child? Given the limited amount of time most programs use to prepare a teacher, choices must be made about the focus of the preparation endeavors. The answer to this question may specify the institutional strategy to be emphasized. Will it be mastery learning, small group instruction, large group activity, coaching, emphasizing time-on-task strategies, classroom discipline, working with alterable variables or the double sigma effects, homogeneous grouping, heterogenous grouping, audio-visual and computer aids? Should the handicapped be mainstreamed into regular classes or placed in special instructional units? At the university the content of the curriculum seems to take precedence over the student as an individual. In the kindergarten class the reverse is apparently true. How do teachers strike a balance and what happens if they do not accommodate both foci?

The five dilemmas are not unresolvable. They can be managed with sufficient valid research. Innovation and creative practices can reconcile the seeming paradoxes with a both/and approach and accommodations can be made without sacrificing quality. The resolution of the dilemmas must be attempted with respect for different views, with appreciation for the cultural diversity of the public school population, and with considerable awe for the tremendous cultural ballast of the school as an institution. The schools have looked the same for the last 2,000 years, since the days of Socrates. Above all, the dilemmas must be approached with the understanding of and admiration for the crucial nature of the role of the teacher in any reform movement. The training and occupational socialization offered by any teacher preparation program can only be as good as the faculty and the candidates of the system.

### A Conceptual Structure for Integrating Theory and Practice in Teacher Education

There are two basic assumptions integral to the following discussion: The first is the view that teaching is an instrumental art, the preparation for which can be based on a core of scientific research findings. The second is that the act of teaching is practiced in schools that are social systems composed of institutional roles and filled by individuals with unique personality needs. One more assumption is called for; that the goal of any educational institution is to produce competent, intelligent, skilled, and productive persons.

There is a reasonably solid body of research about what kinds of people good teachers are and what they do. Many scholars have indicated that systematic and specific teacher education programs are now possible based on the research that has been done and that now can be done on the specialized nature of the teacher's work. The preparation institution and the school would collaborate on placement and ongoing inservice training thus reducing the false dichotomy between pre- and in-service training. One of the elements of any profession is that initial preparation and continuing training are part of the same longitudinal career commitment. In effect, these are the recruitment, selection, training and induction processes used by medicine and law, and represent a traditional model of socialization into a profession (Schwartz, 1983).

At this juncture the teacher education socialization model breaks down (Bush, 1983). Recruitment, selection, training, and induction into other professions insure the individual of certain benefits which are not currently present in teaching. One of the norms of any profession is that the professional enjoys some form of public and client trust. The lifetime commitment to the profession means the practitioner will obey

...  
an ethical code emphasizing service and a commitment to best practices. The training period is long, entry is difficult, career rewards and the good life are predictable based on enhanced skill and hard work in professional criteria. In order for teaching to qualify as a profession, a number of things would have to happen. According to Sykes (1984), teachers would have to control entry to the profession, establish a career ladder, reward excellent performance, extend the training and internship, and synthesize the special knowledge of the profession. Teaching would have to be a full-time, year-round job.

There are indications of some movements toward achieving professional status that are by-products of the reforms being called for in teaching, schools, and preparation programs. California has mandated that a beginning teacher's salary will be \$18,000. Experiments are underway to add those difficult beginning years of teaching to the initial preparatory period and substantially lengthen the period of training thus enabling newcomers and experienced teachers to collaborate as colleagues in school improvement (Bush, 1983).

It has been a challenge developing a holistic model involving research, and practical application for an occupation that still has a very large identity crisis.

## REFERENCES

- Anderson, C.W. "The use of codified knowledge in five teacher education programs: a comparative analysis. East Lansing, MI: Institute for Research on Teaching, Michigan State University, (1982).
- Anderson, L., & Brophy, J.E. An experimental investigation of first grade reading group instruction. Austin, TX: University of Texas at Austin, Research and Development Center for Teacher Education (ERIC No. 124-921), 1973.
- Bennett, N., Jordan, J., Long, G., & Wade, B. Teaching Styles and Pupil Progress. Cambridge, MA: Harvard University Press, 1976.
- Berlak, A., & Berlak, H. Dilemmas of Schooling: Teaching and Social Change. London: Methuen, 1981.
- Berliner, D.C. "Making the Right Changes in Preservice Teacher Education," Phi Delta Kappan, 66: 94-96, 1984.
- Berliner, P. & McLaughlin, M. An Exploratory Study of School District Adaptation. Santa Monica, CA: Rand Corporation (R-2010-NIE), 1979.
- Berliner, D.C., & Fisher, C. (eds.). Perspectives on Instructional Time. New York: Longman, in press.
- Berman, P. & McLaughlin, M. An Exploratory Study of School District Adaptation. Santa Monica, CA: Rand Corporation (R-2010-NIE), 1979.
- Bigelow, Karl W. The Improvement of Teacher Education. Washington D.C.: American Council on Education, 1946.
- Book, C., Beyers, J., & Freeman, D. "Student Expectations and Teacher Education Traditions with Which We Can and Cannot Live," Journal of Teacher Education, 34(1): 9-13, 1983.
- Brophy, J.E. "Classroom Organization and Management," The Elementary School Journal, 83(4): 265-286, 1983.
- Brophy, J.E. "Teacher Praise: A functional analysis," Psychological Review of Educational Research, 88(2): 93-134, 1981.
- Brophy, J.E. "Teacher Behavior and its Effects," Journal of Educational Psychology, 71(6): 733-750, 1979.
- Brophy, J.E. & Evertson, C. "Context Effects on Classroom Process Variables," Report 76-10, Austin, TX: University of Texas at Austin, Research & Development Center for Teacher Education, 1976.

- Brophy, J.E. & Good, T.L. Teacher Behavior and Student Achievement, in M.C. Wittrock (ed.), Handbook of Research on Teaching, 3rd. ed., New York: MacMillan, in press.
- Buchmann, M. "The Use of Research Knowledge in Teacher Education and Teaching," Curriculum Reform, 92: 421-439, 1984.
- Bush, Robert. "The Beginning Years of Teaching: A Focus for Collaboration in Teacher Education," Stanford University: Palo Alto, CA, March 1983.
- Charters, W.W. and Douglas Waples. The Commonwealth Teacher Training Study, Chicago: University of Chicago Press, 1929.
- Clark, C.M. "Research on Teacher Planning: and Inventory of the Knowledge Base," in D.C. Smith (ed.), Essential Knowledge for Beginning Educators, Washington, D.C., American Association of Colleges for Teacher Education, 1983.
- Clark, C.M., & Yinger, R.J. "Teachers' Thinking," in P.L. Peterson & H.J. Walberg (eds), Research on Teaching: Concepts, Findings, and Implications. Berkeley: McCutchan, 1979.
- Conant, J.B. The Education of American Teachers, New York: McGraw-Hill, 1963.
- Darling-Hammond, Linda. Beyond the Commission Reports: The Coming Crisis in Teaching, Santa Monica, CA: Rand Corp., 1984.
- Denham, C. & Lieberman, A. (eds.). Time to Learn, Washington, D.C.: National Institute of Education, 1980.
- Doyle, W. "Classroom Tasks and Students' Abilities," in P.L. Peterson & H.J. Walberg (eds.), Research on Teaching: Concepts, Findings and Implications, Berkeley, CA: McCutchan, 1979.
- Dunkin, M.J., & Biddle, M.J. The Study of Teaching, New York: Holt, Rinehart & Winston, 1974.
- Edmonds, R. "Programs of School Improvement: An Overview," Educational Leadership, 40(3): 4-11, 1982.
- Egbert, R.L., & Kluender, M.M. (eds.). Using Research to Improve Teacher Education: The Nebraska Consortium, (Teacher Education Monograph No. 1), Washington, D.C.: ERIC Clearinghouse on Teacher Education, 1984.
- Egbert, R.L. & Fenstermacher, G.D. (eds.) Journal of Teacher Education, vol. 35, 1984.
- Emmer, E., Evertson, C., & Anderson, L. "Effective Classroom Management at the Beginning of the School Year," Elementary School Journal, 80: 219-231, 1980.
- Evertson, C.M., & Anderson, L.M. "Beginning School," Educational

Horizons, 57(4): 164-168, 1979.

Evertson, C., Anderson, C., Anderson, L., & Brophy, J. "Relationships Between Classroom Behaviors and Student Outcomes in Junior High Mathematics and English Classes," American Educational Research Journal, 17(1): 43-60, 1980.

Evertson, C., Emmer, E., Sanford, J., & Clements, B., "Improving Class Management: An Experiment in an Elementary Classroom," Elementary School Journal, 84(2): 173-188, 1983.

Evertson, C., Hawley, W. & Zlotnik, M. "The Characteristics of Effective Teacher Preparation Programs: A Review of Research," Nashville, TN: Peabody College, Vanderbilt University, 1984.

Feiman-Nemser, S. and Floden, R.E. The Culture of Teaching, Institute for Research on Teaching, East Lansing, Mich., 1985.

Fenstermacher, G.D. & Berliner, D.C. A Conceptual Framework for the Analysis of Staff Development, (N-2046-NIE), Santa Monica, CA: Rand Corporation, 1983.

Feistritzer, Emily. The Making of a Teacher, National Center for Educational Information, Washington, D.C., 1984.

Florida Coalition for the Development of a Performance Measurement System. Domains: Knowledge base of the Florida performance measurement system. Tallahassee, FL: Office of Teacher Education, Certification and Inservice Staff Development.

Fullan, M. The Meaning of Educational Change. New York: Teachers College Press, 1982.

Fuller, F.F. "Concerns of Teachers: A Developmental Conceptualization," American Educational Research Journal, 6(2): 207-223, 1969.

Gage, N.L. The Scientific Basis of the Art of Teaching. New York: Teachers College Press, 1978

Gage, N.L. "The Generality of Dimensions of Teaching," in P.L. Peterson & H.J. Walberg (eds.), Research on Teaching: Concepts, Findings and Implications, Berkeley: McCutchan, 1979.

Gage, N.L. "What do we Now About Teaching Effectiveness," Phi Delta Kappan, 87-93, 1984.

Gage, N.L. & Crawford, J. "An Experiment in Teacher Effectiveness and Parent-Assisted Education in the Third Grade: Final Report to the National Institution of Education. Palo Alto: CA: Stanford University, 1978.

Gage, N.L. & Giaconia, R. "The Causal Connection Between Teaching Practices and Student Achievement: Recent Experiments Based on Correlational Findings." Technical report. Stanford, CA: Stanford University,

Center for Educational Research at Stanford, 1980.

Gideonse, Hendrik D. In Search of More Effective Service: Inquiry as a Guiding Image for Education Reform in America. College of Education, University of Cincinnati, OH, 1983

Good, T.L. (ed.). Elementary School Journal, 83(4), 1983.

Good, T.L.. "Teacher Effectiveness in the Elementary School: What We Know About it Now," Journal of Teacher Education, 30: 52-64, 1979.

Good, T.L., "Recent Classroom Research: Implications for Teacher Education," in D.C. Smith (ed.) Essential Knowledge for Beginning Educators, Washington, D.C.: American Association of Colleges for Teacher Education.

Good, T.L., & Grows, D.A. "The Missouri Mathematics Effectiveness Project: An Experimental Study in Fourth Grade Classrooms," Journal of Educational Psychology, 71(3): 355-362, 1979.

Good, T.L., & Grows, D. Active Mathematics Instruction. New York: Longman, 1983.

Good, T.L., Grows, D.A., & Ermeier, H. Active Mathematics Teaching. Research on Teaching Monograph Series. New York: Longman, 1983.

Goodlad, Joan I. A Place Called School: Prospects for the Future, New York: McGraw Hill, 1983.

Green, J.L., & Smith, D. "Teaching and Learning: A Linguistic Perspective," Elementary School Journal, 83(4): 350-391, 1983.

Griffin, G. "Clinical Preservice Teacher Education: Final Report of a Descriptive Study." Report no. 9025. Austin, TX: University of Texas at Austin, Research and Development Center for Teacher Education, 1983.

Guyton, E. "Curriculum Reform: The Crisis in Teacher Education: Action in Teacher Education, 6(3): 7-14,

Hall, G., & Loucks, S. "A Developmental Model for Determining Whether the Treatment is Actually Implemented," American Education Research Journal, 14: 263-276, 1977.

Hall, G., Rutherford, W., Hord, S., & Huling, L. "Effects of Three Principal Styles of School Improvement," Educational Leadership, 41(5): 22-31, 1984.

Hamilton, S.F., "The Social Side of Schooling: Ecological Studies of Classrooms and Schools," Elementary School Journal, 83(4): 313-334, 1983.

Hosford, P.L. (ed.) Using What We Know About Teaching. Alexandria, VA: Association for Supervision and Curriculum Development, 1984.

Joyce, B.R., Hersh, R.H., & McKibbin, M. The Structure of School Improve-



ment. New York: Longman, 1983.

Kerr, Donna. "Teaching Competence and Teacher Education in the U.S.," Teachers College Record, 83(3): 525-552, Spring 1983.

Kounin, J. Discipline and Group Management in Classrooms,. New York: Holt, Rinehart, & Winston, 1979.

Laffey, James. "Stress and the School Administrator," paper presented at AERA annual meeting, 1979.

Lanier, J.E. "The Preservice Teacher Education Improvement Project: A Critical Review." Journal of Teacher Education, 35: 24-27, 1984.

Lanier, J.E. & Little, J.W. "Research on Teacher Education." East Lansing, Mich.: The Institute for Research on Teaching, Michigan State University, 1984.

Little, J.W. School Success and Staff Development: The Role of Staff Development in Urban Desegregated Schools. Final Report to NIE (400-79-0049). Boulder, CO: Center for Action Research, 1981.

Loar, R.S. & Loar, R.M. "Emotional Climate and Management", in P.L. Peterson & H.J. Walberg (eds.), Research on Teaching: Concepts, Findings and Implications, Berkeley, CA: McCutchan, 1979.

Lortie, D. School Teacher. Chicago: University of Chicago Press, 1975.

McLaughlin, M.W., & Marsh, D.D. "Staff Development and School Change," Teachers College Record, 80(1): 69-94, 1978.

McLaughlin, M.W., & Marsh, D.D. "Staff Development and School Change,.." in A. Lieberman & L. Miller (eds.), Staff Development: New Demands, New Realities, New Perspectives, (pp.6994). New York: Columbia University, Teachers College Press, 1979.

Medley, D.M. "The Effectiveness of Teachers," in P.L. Peterson & H.J. Walberg (eds.), Research on Teaching: Concepts, Findings and Implications, Berkeley, CA: McCutchan, 1979.

Mitzel, H.E. "Teacher Effectiveness," in C.W. Harris (ed.), Encyclopedia of Educational Research, 3rd edition. New York: MacMillan, (pp. 1481-1486), 1960.

National Commission for Excellence in Teacher Education, A Call for Change in Teacher Education, AACTE, Washington, D.C., 1985.

Peterson, P.L. & Walberg, H.J. (eds.), Research on Teaching: Concepts, Findings and Implications, Berkeley, CA: McCutchan, 1979.

Purkey, S.C., Smith, M.S. "Effective Schools: A Review," The Elementary School Journal, 83(4): 427-452, 1983.

Ravitch, Diane. Troubled Crusade: American Education 1945-1980, Basic Books, Inc. New York, 1983.

Rosenshine, B.V. "Content, Time and Direct Instruction," in P.L. Peterson & H.J. Walberg (eds.), Research on Teaching: Concepts, Findings and Implications, Berkeley, CA: McCutchan, 1979.

Rosenshine, B. Teaching Behaviors and Student Achievement, Slough, England: National Foundation for Educational Research in England and Wales, 1971.

Rosenshine, B. "Teaching Functions in Instructional Programs," The Elementary School Journal, 83(4): 335-351, 1983.

Schlechty, Phillip. "A Framework for Evaluating Induction into Teaching," Journal of Teacher Education, XXIII(1): 37-44, Jan-Feb 1985.

Schwartz, Henrietta, George Olson, et al. Schools as Worplaces: The Realities of Stress, NIE Report G-80-0011, 1983.

Shavelson, R. & Stern, P. "Research on teachers' Pedagogical Thoughts, Judgements, Decisions and Behavior," Review of Educational Research, 51(4): 455-498, 1981.

Shavelson, R. "Review of Research on Teachers' Pedagogical Judgements, Plans and Decisions." Paper prepared for the National Invitational Conference on Research on Teaching Implications for Practice, Warrenton, VA: ERIC Document Reproduction Service, no. ED 221-535, 1982.

Shulman, L.S. "Paradigms and Research Programs in the Study of Teaching: A Contemporary Perspective," in M.C. Wittrock (ed.), Handbook of Research on Teaching, 3rd ed. New York: MacMillan, in press.

Smith, D.C. (ed.). Essential Knowledge for Beginning Educators. Washington, D.C.: American Association of College for Teacher Education, 1983.

Smith, B.O. "Pedagogical Education: How About Reform?" Phi Delta Kappan, 62(2): 87-91, 1980.

Smith, B.O. "Teacher Education in Transition," in D.C. Smith, (ed.). Essential Knowledge for Beginning Educators. Washington, D.C.: American Association of College for Teacher Education, 1983.

Smith, B.O. "Research Uses for Teacher Education", Phi Delt Kappan, 66(10): 685-690, 1985.

Soar, R.S. & Soar, R.M. "Emotional Climate and Management," in P.L. Peterson & H.J. Walberg (eds.), Research on Teaching: Concepts, Findings and Implications, Berkeley, CA: McCutchan, 1979.

Stallings, J.A. & Kaskowitz, D. Follow-Through Classroom Observation Evaluation, 1972-1973. Menlo Park, CA: Stanford Research Institute, 1974.

Stallings, J. "How Instructional Processes Relate to Child Outcomes in a National Study of Follow-Through," Journal of Teacher Education, 29(1): 43-47, 1976.

Sykes, G. and Shulman, L. The Handbook of Teaching and Policy, New York: Longman, Inc., 1983.

Sykes, G. "The Professional," a paper prepared for the California Roundtable on Education, 1984.

Turner, R.L. "An Overview of Research in Teacher Education," in K. Bryan (ed.) Teacher Education: The Seventy-Fourth Yearbook of the National Society for the Study of Education. Chicago: University of Chicago Press, 1975.

Vaughn, J.C. "Knowledge Resources for Improving the Content of Preservice Teacher Education," Journal of Teacher Education, 35: 3-7, 1984.

Walberg, H.J. & Waxman, H.C. "Teaching, Learning, and the Management of Instruction," in D.C. Smith, (ed.). Essential Knowledge for Beginning Educators. Washington, D.C.: American Association of College for Teacher Education, 1983.