STANFORD TEACHER EDUCATION PROGRAM
1997-98 EVALUATION REPORT

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SCHOOL OF EDUCATION

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INTRODUCTION

The President of Stanford University, Gerhard Casper, requested an evaluation of the Stanford Teacher Education Program (STEP). The first section of this report provides a brief description of STEP and the evaluation, including the methodology. The second section provides a summary of the evaluation findings. The third section of the report provides historical background and detailed findings and recommendations.

BRIEF STEP DESCRIPTION

STEP is a 12-month teacher education program in the School of Education, resulting in both a master's degree and a secondary school teaching credential. Subject area specializations include: English, Languages, Mathematics, Sciences, and Social Studies. The program also offers a Cross-cultural, Language, and Academic Development (CLAD) emphasis for students who plan to teach second language learners. The 1997-98 class enrollment was 58 students. Tuition and board are approximately $30,000.

The program introduces students to teaching experiences during the summer quarter through the summer school program[1] under the guidance of a master teacher. Students are also required to take course work during this period.

Students enter the academic year with a nine-month teaching placement which begins in the fall quarter under the supervision of a cooperating teacher and field supervisor. Students are also required to take the School of Education master's degree and state required course work through-out the year.

The program administration includes: a faculty sponsor, Director, Placement Coordinator, Student Services Coordinator, Lead Supervisor, field supervisors, and a program assistant. In addition, the program has a summer school coordinator/liaison and part-time undergraduate and doctoral students.

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[1]The Koret Foundation and the Quantum Corporation have provided small external gifts for the summer school.

The first phase of the evaluation was formative, designed to provide information that might be used to refine and improve the program. It concluded at the end of the 1997-98 academic year. Findings and recommendations from this phase of the evaluation were reported in various forms, including a formal summer school evaluation report (Fetterman, Dunlap, Greenfield, and Yoo 1997),[2] over 30 memoranda, and various informal exchanges and discussions.

The second stage of this evaluation was summative in nature, providing an overall assessment of the program. This report presents these summative evaluation findings and recommendations.

This report focuses on the following topics and issues: unity of purpose or mission, curriculum, research, alumni contact, professional development schools/university school partnerships, faculty involvement, excellence in teaching, and length of the program. In addition, a few specific program components are highlighted including: admissions, placement, supervision, and portfolios.

Many of the issues raised in the earlier summer school evaluation and in this report have been discussed in past evaluations and dissertations focusing on STEP (Bridges, Chaffe, and Blosser, 1980; Gillette, 1948; McNaughton 1942; Meckel 1987). For example, in a 1980 evaluation and an evaluation focusing on 1979-1983,[3] students praised supervisors in the same manner reported in this evaluation. Similarly, STEP students were severe critics of the program in 1942, 1948, and 1980, as they were in 1997. For example, over 56 years ago, STEP students and faculty complained about their course work being "too theoretical" and needing to be more "practice-oriented" (see McNaughton, 1942, p. 266, 414, 464). Gillette's (1948) evaluation documents the same concern (p. 12). Past evaluations also consistently commented on the absence of faculty coordination concerning the curriculum and the "low quality of their instruction." (See McNaughton, 1942, p. 282-283, 413, 460; Bridges, Chaffe, and Blosser, 1980; and Fetterman, Dunlap, Greenfield, and Yoo, 1997 for examples spanning over 50 years.) One student quotation from the 1980 evaluation captured the sentiment of many in their sample concerning instruction: "On the whole, courses were abysmal, obscure. We had no hands-on experience. The courses were didactic and teacher-centered. It was evident that the faculty had few and low expectations of student performance" (Bridges, Chaffe, and Blosser 1980, p. 7).

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[2]The summer school evaluation report presented findings concerning: orientation, summer school program, summer quarter courses, and CLAD certification. The report highlighted the STEP summer school program, including such features as: administration (this was the first time Stanford was not responsible for site administration), master teachers as instructional and classroom management role models, quality of STEP student participation in teaching activities during the summer, master teacher guidance and evaluation of STEP students, and Stanford-paid time for master teachers and STEP students to plan and debrief concerning instruction. In addition, the role of the East Palo Alto Stanford Summer Academy (EPASSA) was discussed. The report concluded with a discussion of STEP summer quarter courses, which were taught by regular SUSE faculty, and CLAD certification.

[3]The Meckel 1987 evaluation highlighted STEP students' positive views of Stanford supervisors (see p. 55). The study also noted the variability of the quality of the supervisors (p. 71).

In the current evaluation, we had high, medium, and low quality teaching categories. The sentiments expressed in the 1980 evaluation closely matched the views of current students concerning the low-quality category of teaching. It is useful to note the historical reliability of many of the findings in the current report, as these patterns suggest systemic problems associated with the program.

THE METHODOLOGY

The evaluation relied on traditional educational evaluation steps and techniques including a needs assessment; a plan of action; data collection including interviews, observations, and surveys; data analysis; and reporting findings and recommendations. Data collection included a review of curricular, accreditation, and financial records, as well as interviews with faculty and students, and observations of classroom activity. Informal interviews were conducted with every student in the program. Focus groups were conducted with both students each quarter and alumni from the classes of '95, '96, and '97. Over 20 faculty interviews were conducted. Survey response rates were typically high (90 to 100%) for master teachers, current STEP students, and alumni. Data collection also relied on the use of a variety of technological tools including, digital photography of classroom activity, web surveys, and evaluation team videoconferencing on the Internet. Data analysis was facilitated by weekly evaluation team meetings and frequent data base sorts. Formal and informal reports were provided in the spirit of formative evaluation. Responses to preliminary evaluation findings and recommendations were used as additional data concerning program operations. (A detailed description of the methodology is presented in Appendix A of this report.)

STEP has some noteworthy qualities. The caliber of the faculty and students are extraordinary. The number of tenure-track faculty teaching in the program compares favorably with other programs. STEP has a number of excellent teachers, who use a wide variety of instructional activities. Some of the courses in the program are thought provoking and insightful; others are pragmatic, providing timely guidance and instruction. Supervision is supportive and critical. The year-long student teaching experience familiarizes students with the full cycle of school life, while providing them with a more realistic teaching experience than those programs with less exposure to student teaching. The program's portfolio conference helps to crystallize students' educational experience. Alumni are typically strong, loyal advocates for the program.

Schools of Education, however, produce not only teachers, but also first-rate researchers. The tension between researcher and practitioner interests can be healthy and productive. However, Stanford is a research institution and, in an environment that legitimately favors research over practice, the interests of practitioners can be neglected over time. STEP's current status is in part a reflection of this tension. The familiar reference to STEP as a "step-child" captures the devalued sentiments expressed by both faculty and students.

The program lacks a unifying purpose or commonly held conception of its mission. A mission statement does not automatically result in a high-quality program. However, it does have the power to shape every facet of the program. For example, research training and experience may represent a critical component of teacher training as long as the mission both focuses on reflective practice and views the program as a forum in which people can implement well-thought-out ideas. Similarly, a commitment to supporting beginning teachers (and reducing attrition) may have implications for alumni contact and program length. Faculty commitment to training teachers in a cohesive, supportive, but natural, environment while helping schools engage in educational reform and renewal may have implications for the development of university-school partnerships. A unifying purpose or cohesive vision of the program can help align program features in a reinforcing manner, minimizing conflict and contradictory practices. Most of the evaluation findings presented in this report are related to the absence of a program vision.

Leadership has often been high-caliber but uneven and inconsistent over time. It has evolved from student to professional staff member and faculty sponsorship. However, the assumption of leadership by a senior faculty member was often an act of good citizenship associated with the School's survival, rather than a function of scholastic and intellectual commitment. Linda Darling-Hammond's scholarship is focused on teacher education. Her leadership thus represents a watershed event in STEP's history.

Faculty involvement has also been uneven. For example, curriculum and instruction faculty have been invested in the program for long periods of time. However, there is a high turnover rate among faculty who teach foundation courses. In addition, STEP faculty do not meet to design, revise, or coordinate curriculum or course content. This pattern exists in part because few faculty at Stanford have teacher education as their primary intellectual or research interest. In addition,

current faculty and faculty formerly associated with the program have stated that rewards, recognition, and status do not accrue in the same manner as in areas outside the STEP program.

STEP faculty typically design courses in isolation from the central activities of STEP and each other, which contributes to a fragmented curriculum. An explicit rationale for the STEP course sequence would be helpful. The fragmentation is also in part a result of adding state requirements in a piecemeal fashion. Significant curricular gaps in the program contribute to the problem as well, including the absence of pragmatic classroom management-oriented courses or activities during the fall quarter when students begin their year-long teaching placement. In addition, the lack of connection between educational theory and classroom practice, or more precisely relevance to the act of teaching, is a common complaint in this program, as it is in other professional training programs. Academic accountability could be enhanced, particularly concerning assigned readings. Some courses could be streamlined, reducing the time currently devoted to teach the material. In addition, technology, literacy, and research courses and activities could be integrated more fully into the curriculum. Curricular fragmentation contributes to STEP student anxiety, frustration, and disrespect.

Student dissatisfaction is also linked to faculty instruction. Although STEP has many excellent teachers, one of the most common student complaints concerned instructional quality. STEP students are particularly critical about instructional practice because they expect exemplary teachers as models. An explicit and ongoing effort to raise consciousness among faculty regarding the importance of demonstrating excellence in teaching is merited.

Training and involvement in research represent another form of instruction and can help students develop an inquiry-based approach to teaching. However, there is no systematic research training for all STEP students. In addition, STEP students rarely participate in research projects, largely because of their dense or tight program schedule.

The dense program schedule represents one of the most significant findings in the evaluation, as students juggled course work and student teaching without sufficient connection between the two experiences. Most faculty teaching in STEP commented on the need to "unpack" the program. Many indicators suggest that the program should be lengthened. Several comparable teacher education programs operate on a 15-month program schedule.

In spite—or perhaps because of—these concerns, it is clear that this is a pivotal moment in the program's life cycle. The requisite knowledge and resources are presently available to initiate a transformation in the quality of the program, raising the standard of teacher education at Stanford and the nation. The remainder of this report briefly presents the historical background of the program, discusses the evaluation findings, and provides specific selected recommendations designed to produce a blueprint for change and program improvement.

A chronicle of STEP's history can be found in official program review documents for accreditation purposes, as well as dissertations (see McNaughton, 1942; Meckel, 1987). However, for the purposes of contextualizing this evaluation it is useful to highlight a few historical themes and patterns.

SUMMER SCHOOL HISTORY

The initial phase of this evaluation focused on the summer school experience. A brief review of the history of the summer school program provides an insight into the significance of this component of the evaluation.

In the years before 1994, STEP students began their field experiences as assistants and teachers in summer school programs of local school districts and in various summer programs held on Stanford's campus. The large number of programs used for summer placements contributed to widely varying experiences for the STEP students. There were a number of disadvantages in using a collection of existing summer programs: overall placement quality was erratic; several sites did not offer exemplary teaching models; others were not realistic academic classroom experiences. The array of placements contributed to general dissatisfaction among STEP students; a lack of coherence between Stanford courses and students' field experiences; and, often for the new STEP class arriving in mid-June, a poor "first impression" of Stanford's teacher education program.

In summer 1994, the Stanford Educational Collaborative, STEP, and the Stanford School of Education created the Stanford Summer Teaching School, bringing together students, master teachers, and administrators from nearby participating school districts. Through an enormous collaborative effort, the Summer Teaching School created a summer program for a diverse student population from several school districts and a common initial placement for the STEP students. Offering classes at Jane Lathrop Stanford (JLS) Middle School in Palo Alto for all students sent by cooperating districts, the Summer Teaching School opened its doors to approximately 300 students entering grades eight through twelve. Approximately 80 STEP students were placed in classrooms with 20 Master Teachers selected by STEP administrators and faculty. The following two summers, the Summer Teaching School continued at JLS, but re-focused as a middle school program, offering classes for approximately 200 students entering grades eight and nine.

The 1997 Summer School represented a second stage for STEP's summer school program. This was the first year that the teaching school had been conducted within a school district's existing summer school program. After a search of appropriate districts begun in Autumn 1996, STEP entered into collaboration with Santa Clara Unified School District to conduct a summer school program at Peterson Middle School for students entering grades six through eight. Approximately 60 STEP students worked with 12 master teachers to teach interdisciplinary courses to 330 middle school students. The district bore the operating costs of the school, such

as faculty and staff salaries, transportation, and site maintenance. In addition, administrative procedures, enrollment, and grade reporting followed established district policies.

Given the number of changes in the 1997 STEP summer school and the efforts of the Re-Thinking STEP committee, it seemed propitious to evaluate the 1997 STEP summer program with the goal of improving this important component of Stanford's teacher education program. In addition, this was one of the most expensive parts of the program.

ADDITIONAL HISTORICAL CONTEXT AND ADMINISTRATION

STEP students and alumni have a documented record of being generally loyal supporters of the program. They believe it serves a useful and important purpose, and as such are one of the first to express concerns about the program "getting the axe." However, they have also been vocal critics as expressed in teaching assessments, past evaluation reports, and formal complaints. (See Bridges, Chaffe, and Blosser, 1980; Fetterman, Dunlap, Greenfield, and Yoo, 1997; Gillette, 1948; McNaughton 1942; Meckel 1987).

The class of 1994 marked a particularly difficult year in the program. A vocal minority of students expressed their dissatisfaction with the program in a variety of venues, including graduation ceremonies. They were concerned about a number of issues associated with the program, ranging from the traditional relevance of theory in practice to racially charged issues associated with multicultural insensitivity. Many faculty members expressed their displeasure with the manner in which student dissatisfaction was expressed. A few thought that these students were disingenuous. However, one faculty member "wondered why it did not blow up sooner." He thought the students had expressed themselves clearly throughout the year and their issues were not adequately addressed.

This brief review of student and faculty patterns provides a context in which to view current concerns about the program. While there are some systemic issues and the Meckel study (1987) highlights administrative leadership problems, significant progress has been made in the last decade and it is in part attributable to administrative leadership.

Administrative leadership immediately following the class of 1994, for example, significantly contributed to a calmer atmosphere in which to operate STEP. Overall, there has been progressively more stable leadership in the program, from a doctoral student directed teacher education program to professional staff members and faculty leadership.[4] The current director

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[4]In the fall of 1987, the School of Education faculty decided that a full-time Director was needed to operate STEP. The position was filled in 1988. The last time a full-time Director occupied the position was over a decade earlier.

has made a significant contribution to the stabilization of the program. A new faculty hire whose research focus is in teacher education promises to integrate a research-based vision of the program with this already solid foundation.

The remainder of the report presents detailed findings and recommendations. This consists of expanded discussions about each of the topics discussed in the summary.

DETAILED FINDINGS
AND RECOMMENDATIONS

UNITY OF PURPOSE OR MISSION

A unifying purpose is a commonly held conception of a program and its mission. It can shape every facet of a program ranging from admission to an integrated curriculum. A unified purpose also has implications for efforts that transcend conventional program boundaries and might include creating professional development schools and fostering a community of learners among alumni. As Goodlad (1994) has stated, "Programmatic coherence around a mission is a sign of good health" (p. 69). Conrad, Haworth, and Millar (1993) have found unity of purpose to be one of the most significant attributes associated with high-quality master's programs. (See also Copland and Bridges, 1998 concerning the Prospective Principals Program.)

A clear mission helps create a cohesive set of policies, policy decisions, and programmatic practices. In addition, the content of a strong program begins with a mission and a design for providing students with great learning experiences toward a clear, compelling end.

Interviews with over 20 faculty associated with STEP have indicated that they do not share a clear commonly held conception of the program and its mission. Instead multiple, and at times conflicting, purposes and visions of the program result in contradictory practices and mixed messages. Similarly, current students and alumni do not share a common conception of the program purpose.

The majority of faculty interviewed defined the mission of STEP exclusively as preparing teachers to teach in an eclectic and reflective manner. This has been part of a published mission for years. Several faculty members stated that STEP's mission could include some combination of the following items: research, teacher preparation, school district faculty renewal, integrated curriculum, alumni contact, induction of novice teachers into the profession, community involvement, linking theory to practice, and models of exemplary practice in teaching STEP courses. However, discussion of these topics was uneven and inconsistent and often dependent on prompting. In addition, STEP faculty and other School of Education faculty do not share common perspectives about these potential facets of the program's mission, including linking theory to practice. This lack of consensus is reflected in STEP course expectations and assignments. Students' views of the program's mission focused exclusively on STEP preparing "eclectic, reflective teachers." The current draft of STEP philosophy also focuses on the development of eclectic, reflective practitioners. However, the lack of specificity concerning other dimensions has implications for program practice, particularly in the areas of research, curriculum and course structure, alumni contact, support, and induction.

Although there was no agreement among faculty members on an established set of mission statements, a few of the most salient ideas have been extracted from individual interviews:

1) a model teacher education program in the Bay Area and the nation, educating educators at the front lines of practice

2) preparing students for doctoral training specializing in teacher education

3) a center of gravity in the Bay Area for professional development, working with schools to help them improve their programs

4) a research site where people can try well thought out ideas

Comparable teacher education programs also specify an overarching theme, such as social justice, racial and gender equity, or urban education. (For examples, see Lewis and Clark, Agnes Scott College, Trinity, and UCLA.) Although these themes were not mentioned in any of the STEP faculty interviews or discussions about the mission, the theme of social justice and equity might strike a responsive cord within the SUSE faculty, whereas urban education might be too broad or ill-defined a concept and less relevant given the location of most of the program's field placements.

Exemplary teacher education programs, such as Trinity, have used the Holmes Group report (1986), Professional Development School model, and the National Council for Accreditation of Teacher Education to focus their programs. The National Board for Professional Teaching Standards portfolio-based assessment of performance also represents a promising tool to help focus and shape STEP. (See Darling-Hammond (1998) and the National Commission on Teaching and America's Future (1996), *What Matters Most: Teaching for America's Future.* See also The Carnegie Forum on Education and the Economy (1986), *A Nation Prepared: Teachers for the 21st Century*.)

Goodlad (1994) and other teacher education researchers have discussed the value of a mission and the dynamic nature of a consensually agreed upon unifying purpose. Once established and agreed upon, a unifying purpose should be periodically reviewed, updated, and reaffirmed by members of STEP administration, faculty, and students, as well as the School of Education faculty.

1. School of Education faculty and students, together with local teachers and program administrators, should enter into a dialogue about the purpose of STEP both in a university and in a free society. Existing models and principles can be used to engage in this discussion. For example, the postulates about teacher-training derived from Goodlad's Center for Educational Renewal represent an excellent point of departure. The National Board of Teaching Standards represents another excellent resource. The postulates and the Standards could be used to focus every aspect of the existing program from admission to induction into the profession. In addition, past discussions on this topic and the current draft of STEP philosophy could be revisited.

2. STEP faculty, staff, students, local teachers, and program administrators need to agree on and communicate first a purpose and then a direction for the program. The mission should be used to focus every aspect of the program from admission to the induction of new teachers (our alumni) into the teaching profession, as well as program features such as placement and the length of the program.

Although STEP provides some academically rich courses, the curriculum, overall, is fragmented, as currently scheduled and sequenced.

STEP students, like students in teacher education programs across the country, frequently complain about a lack of connection between "theory" and "practice." This disjuncture is also a common complaint in other professional training programs. A more precise definition of the problem focuses on relevance or irrelevance to the act of teaching. Many missed opportunities to make this link were observed throughout the year, particularly in foundation courses where the connections need to be frequent, explicit, and anchored in activities that help students learn to apply theoretical constructs to their classroom practice.

The year-long field placement is directly relevant to the act of teaching and is the cornerstone of the STEP experience. It is regarded by recent graduates as one of the most valuable training components of the program. In addition, most students view Curriculum and Instruction courses as directly connected to practice because they complement the daily teaching experience. However, the absence of a Curriculum and Instruction course during the fall quarter, when STEP students launch their year-long teaching placement, represents a significant curricular gap.

The rationale for the STEP course sequence is neither explicit nor shared by faculty or students. Technology, literacy, and research courses and activities represent additional weaknesses and gaps in the curriculum that merit attention. A more detailed discussion about these issues is presented below.

RELEVANCE TO THE ACT OF TEACHING

Shulman's research reveals that the perception of a weak link between theory and practice is a problem common to most professions, including medicine (1997). Atkin (1998) more precisely refers to this problem as one in which students view courses and curriculum as relevant or irrelevant to the act of teaching. At Stanford and throughout the country, teachers-in-training frequently complain of the lack of connection between educational theory and classroom practice.

Although the tension between theory and practice in professional schools is common, additional steps to link instruction to classroom practice are needed in STEP courses, particularly in foundation courses. Exceptional class activities and instruction were observed in some courses. Generally, however, instructors need to encourage in-class discussion and structure activities and assignments to link theory and research to students' classroom experiences. In several cases, students attempted to raise issues from their teaching experiences during Stanford course discussions but instructors often did not use the opportunities to address their "practice" problems. These "teachable moments" appeared to be times when defeat was snatched from the jaws of

victory. This problem is discussed in additional detail under curriculum integration, length of the program, and later in the research sections.

YEAR-LONG FIELD PLACEMENT

Current students and alumni consistently rate the year-long field placement as the single most significant part of the program, because it is anchored in practice. Students complete the program with an understanding of the cycle of an academic year. They are able to observe and contribute to the intellectual and emotional growth of their students over an entire school year. In addition, because STEP students are present daily in their classes, they are generally viewed as "real teachers" by most of their students, rather than guests or substitutes in the classroom.

CURRICULUM AND INSTRUCTION COURSES

Curriculum and Instruction courses and supervision are designed to guide and instruct STEP student teaching, as well as help students become knowledgeable about disciplinary pedagogy. Current STEP students and recent graduates repeatedly state that these two facets of the program forge critical links between Stanford and their classroom experiences. As noted above, the absence of Curriculum and Instruction courses during autumn quarter appears to be a significant curricular gap when STEP students first enter their year-long placements. Beginning student teachers need exposure to effective instructional strategies and educational philosophies in addition to those of their cooperating teachers; interns (or students who are paid by the district to teach courses) particularly need instructional support from Stanford because they usually have less guidance at the school site.

Students have commented that fall is the most important time for them to be enrolled in Curriculum and Instruction courses. In response to an evaluation survey question, "Would a C&I course be useful in the Autumn Quarter?", 66% responded yes, 6% no, and 27% unsure. One of the reasons for this program gap appears to be faculty availability during the Autumn Quarter.

The absence of Curriculum and Instruction courses during Autumn Quarter may influence student expectations and assessments of other fall quarter courses. It appears that the absence of any Curriculum and Instruction courses during fall quarter leaves students searching for more practical, hands-on material in the rest of the fall courses. Other courses are not designed to serve this purpose as explicitly as Curriculum and Instruction courses, and on the STEP evaluation surveys students have severely critiqued fall courses for not addressing their practical needs.

The program offers an abundance of meaningful courses taught by both university faculty alone and with high school teachers. Students are exposed to a wide array of materials. In addition, students acquire a rich educational vocabulary by the time they graduate, as evidenced by conversations they have had with student teachers in other programs. However, STEP students (both current and alumni) complain that much of the course material to which they are exposed is difficult to process or digest while in such an intensive program.

The problem is related to curricular integration and time. First, the rationale for the course sequence is neither explicit nor shared by faculty or students. This is based on extensive interviews with faculty, current students, and alumni. In addition, there is no overarching curricular theme that is linked to the mission of the program. STEP courses do not follow a clear path toward a specified or desired educational outcome.

In addition, there are clear gaps in the curriculum, such as the absence of Curriculum and Instruction in autumn, as discussed above. There are also similar, or in some cases, the same readings and assignments (in some instances within the same quarter). Opportunities to link course work to classroom practice were often overlooked.

State requirements contribute to the problem of curricular fragmentation. Attempts have been made to integrate some of the state required activities into the curriculum. However, lectures and presentations designed to fulfill state requirements are typically added to practicum. Students often perceive practicum as a collection of unrelated topics and activities. Moreover, defining various learning activities as state requirements often trivializes the topic and students get the message that such activities "don't matter." This approach to the state requirements has an impact on students' perception of the entire curriculum.

Curricular fragmentation contributes to STEP student anxiety, frustration, and disrespect, which is manifested in their course evaluations, their behavior in practicum, and their attendance in Stanford courses during the year.

Time represents another important factor determining how much material can be digested. In a one-year program it is difficult to absorb all of the material presented while teaching. However, students complained as well about the lack of academic accountability. For example, many students expressed a concern that faculty were not making use of the assigned readings in the classroom. In one case, the lectures duplicated the required readings in the text. Several similar examples were observed throughout the year. Students quickly learned from these examples that they could complete many courses without reading much of the assigned material.

One of the most common student requests during the first half of the year was for material and courses directly linked to the act of teaching (their classroom experiences), including classroom management and lesson planning. Based on interviews, surveys, and discussions with current students and alumni, students were more receptive to "theory" or topics less directly related to the

act of teaching later in the year and during their first year of actual teaching. A more detailed discussion about the length of the program follows later in this report.

CURRICULAR AREAS NEEDING DEVELOPMENT

Faculty and staff member focus should be on integrating the curriculum, rather than adding additional courses and tasks in a piecemeal fashion. Technology, literacy, and research courses and activities are areas of the curriculum, which merit attention, with an eye toward integration rather than augmentation or fragmentation.

TECHNOLOGY

Several teacher education programs make extensive use of technology to facilitate learning and teaching in their programs. UCLA's teacher education program integrates technology and curriculum into year-long "team seminars," which focus on the analysis and practice of basic principles of planning, conducting, and evaluating units of curriculum and instruction. Students in UCLA's teacher education program also maintain student teacher lesson plans on the web for easy access. In addition, email is used in some programs to facilitate alumni contact and first-year teacher support groups.

The University of South Carolina teacher education program uses educational technology to create a dialogic discourse community. It is designed to help new teachers develop their identity as members of the teaching community in a nonthreatening environment (Edens and Gallini 1998). University of North Carolina researchers are using email to facilitate critical literacy (Calfee & Hiebert, 1991). According to Blanton, Moorman, and Trathen (1998):

> The Peabody College of Vanderbilt University (Pellegrino and Altman, 1997) has developed interactive video-based case studies that "anchor" pedagogical knowledge in richly contextualized scenarios. Harris (1994) designed a virtual teacher education course in which students use Internet resources as they research, draft, and publish projects, all electronically. "StudentJournal" at the University of Nebraska at Lincoln is an electronic tool students and supervising teachers use for journal writing, record keeping, and critical analysis of teaching (Anders and Brooks, 1994). Others use video- and computer-mediated conferences among university supervisors, cooperating teachers, and student teachers (Bednar, Ryan, and Sweeder, 1993; Clawson and Weiner, 1993; Hakes, 1991; Swift and Coxford, 1988). The University of Wyoming's compressed video system connects student teachers, cooperating teachers, and university faculty in discussions of problems and instructional issues (OTA, 1995). Miami University has developed EDTNet for student teachers and supervisors (Perry and Brooks, 1987). The MICH: EdCorps network at the University of Michigan connects colleges of education throughout the state (Swift and Coxford, 1988). Teacher-LINK at the University of Virginia (Bull, Harris, Lloyd, and Short, 1989) and the Beginning Teacher Computer Network at Harvard University (Merseth, 1988) support communication between public schools and universities.

Technology appears to be an underutilized resource in STEP. A number of students commented that in the technology course, a clear case was not initially made for the use of technology in the classroom. The technology course was integrated into some Curriculum and Instruction courses, but not into others. Students did not consider the technology course sensitive to their classroom environments, particularly when a paucity of educational technology was available in the classroom. When technology was used in the technology course, it was relegated to purely mechanical tasks, such as the use of word-processing and basic Internet browsing.

STEP alumni have stated that they are expected to be "on the cutting edge" technologically as recent graduates from Stanford University. However, they have stated that they felt unprepared in terms of basic skills in this area. A few have reported being placed in a position of leadership, such as guiding a district's effort to introduce technology (from a teacher's perspective), without sufficient preparation about technical, conceptual, or social issues associated with technology in school systems. The current status of teacher preparation and technology at Stanford is compounded by pressures associated with Assembly Bill 1023 (1997) which will result in a more rigorous clear credential requirement. This is a new law passed by California legislators, which takes effect January 1, 2000, requiring advanced study of computer-based technology.

Technology instruction can be infused and integrated into existing courses, if it is explicitly adopted as a goal and systematically implemented by the faculty.[5] At present, technology is not well-integrated throughout other courses in the program, ranging from tools to philosophical discussions about applicability, utility, learning, and discourse. Relevant models for integrating technology into existing courses are available on campus. For example, Stanford's Art Department provides students with training and access to online web-based portfolios for learning, reflection, critique, and employment. The web could be used to augment, supplement, or store STEP student portfolios. (See Grabe and Grabe 1998 for a discussion about integrating technology for meaningful learning. In addition, see the Report to the President on the Use of Technology to Strengthen K-12 Education in the United States (1997); as well as the Office of Technology Assessment's (1995) "Teachers and Technology: Making the Connection.")

LITERACY/READING

In order to meet state certification requirements, most California teacher education programs include reading courses. STEP does not currently offer a separate course for reading or developing students' literacy skills in the secondary classroom. While an additional course requirement could address the standards for professional practice that California teachers are expected to meet, another "add-on" course may further fragment the curriculum unless the course

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[5]As computers, information networks, and the Internet become part of our nation's infrastructure, the education system has been thrust into the role of ensuring equitable access to computer skills that make the use of such infrastructure possible. Such a responsibility necessitates the professional development of teachers in technology through both pre-service and in-service training. In this regard, STEP has the capacity to develop teachers with basic computer literacy and to address the larger issues in educational technology, such as integrating technology into content curriculum and understanding the effects of technology on student learning.

content is integrated into the overarching curriculum design. For example, if another quarter of Curriculum and Instruction is added, a portion of that course could be devoted to content area literacy. Teachers-in-training could learn strategies for creating "communities of inquiry," (Calfee & Patrick, 1995) developing positive beliefs in students, creating a purpose and context for reading, and teaching reading strategies explicitly, which should be tailored to the vocabulary and text structures of the discipline. Such a course would help develop STEP students' skills related to their students' literacy development and address, in part, the professional standards of "Planning instruction and designing learning experiences for all students" and "Assessing student learning" (California Standards for the Teaching Profession, 1997).

RESEARCH

Research methods are fundamental tools required to enable and empower educators to reflect on their practice. A commitment to instruction in the area of research design and methods appears appropriate given STEP's commitment to reflective teachers. (See the research section of the report for additional detail.)

Models for STEP students' participation in educational research is uneven, often dependent on their content area. Science students, for example, participate in action research projects during the course of their year in STEP. However, students' direct involvement in research is atypical in the program.

Wake Forest provides a series of research courses to prepare students for applied research activity in the classroom. Ethnography is one of the most common research approaches used in comparable teacher education programs. Research training is typically linked to the program's mission. STEP lacks systematic instruction in the area of research design or methods for its teachers-in-training.

1. STEP administration should continue to include a year-long field placement for STEP students.

2. STEP faculty and staff members should consider shaping courses toward overarching themes in the curriculum that are directly linked to the program's mission or unifying purpose and state requirements. In addition, consider offering courses and activities more closely linked to the act of teaching (or effective classroom practice) during the first half of the program.

3. STEP faculty and staff members should provide students with additional course work or curricular support that relates directly to their instructional practice during fall quarter. This may take many forms, such as:

   - Curriculum and Instruction courses during fall quarter.

   - Supervisors and cooperating teachers providing links between research and practice during this period merit serious consideration as well.

4. STEP administration should institute STEP faculty meetings to share syllabi, goals, and intentions of the program.

5. STEP faculty and staff members should embrace and creatively engage some state requirements. This may be more productive than resisting or trivializing them. State requirements should not be justification for further fragmenting the curriculum. Specific requirements, such as technology and classroom literacy could be integrated into the curriculum.

   In some instances, as a short-term measure, weekend institutes or workshops could be developed to satisfy other specific requirements less easily integrated into the curriculum.

6. STEP administration should address curricular gaps or weaknesses such as educational technology, literacy, and research in a timely fashion to properly prepare STEP students. Plans should be made to anticipate students' educational needs associated with more rigorous clear credential requirements, particularly in the area of technology.

STEP as currently configured and conceived is in part a product of research at Stanford.[6] It was an active center for educational research and exploration, experimenting with pedagogy focused on T groups, microteaching, videotaped observations, reciprocal observations, and reflective practice. During recent years, Lee Shulman (1996) conducted research in the program in the areas of case-based work and fostering a community of learners. In addition, Greeno has conducted preliminary research activity concerning mathematical discourse as a topic in teacher education.

There is currently, however, no systematic, faculty-sponsored research activity in STEP, with the exception of Greeno's plans to continue his preliminary efforts. Involvement in research can help students develop an inquiry-based approach to teaching and be an important model for STEP students and doctoral students connected with the program. Such modeling may include Stanford faculty conducting research with summer middle school or with other cooperating school faculty throughout the year. (See Fetterman 1997 for an example at Peterson Middle School.)

As discussed earlier in the curriculum integration section of the report, there is no systematic research training for STEP students. A number of teacher education programs, however, have integrated research in various ways that may serve as possibilities for shaping research in STEP. For example, Wake Forest offers a three course sequence in research (within their one full-year program), including educational research, descriptive research, and a methodology and research course (McCoy and Evans, 1998). Teacher education students at Wake Forest also gather data in their classrooms, write research reports, and present their work at an annual Research Forum (Evans, 1998). UCLA offers an ethnographic course and instruction in qualitative inquiry. Columbia requires a Research on Teaching course. Students are required to conduct an educational research project at Berkeley, Wisconsin and Ohio. The University of Maryland (McCaleb and Price, 1998) and Trinity University (Moore, Breidenstein, Bieser, and Barnard, 1998) engage students in action research as a critical component of their teacher education program. Brown provides an Analysis of Teaching seminar to guide students in a personal inquiry into their teaching (Landay, 1998). Research courses are a critical component of teacher training if the mission of the program focuses on reflective practice.

The following list of recommendations is based on the assumption that research becomes a critical component of STEP's unifying purpose. These recommendations need to be reassessed and adapted if research does not become a central theme in STEP's mission.

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[6]The current program was greatly influenced by research in the 60's. See Trinchero and Shavelson, 1971 for an example of STEP-related research during the 70's.

1. STEP faculty should consider making educational research or the systematic reflection on practice a key component of the program. The purpose would be to train students to use various research strategies for understanding their classrooms and school organizations.

2. Faculty should more actively consider possible matches between their own research interests and STEP as a research site, as well as matching interests with teacher education programs and student concerns.

3. Faculty and staff members should consider developing systematic research training and instruction throughout the academic program for all STEP students, ranging from courses to opportunities to work with faculty on research projects. Given the intensity of STEP students' current schedules, participation in research projects would have to be directly related to their teaching or highly focused in scope and length.

4. Faculty and staff members should consider providing opportunities for students to engage in research about their own concerns in the classroom, possibly as part of a second year of training (discussed in the length of the program section of the report). The discussion about a 15-month or second year of training emphasizes that students would be paid teachers and tuition would be minimal during that period.

According to Goodlad's 17th Postulate, "Programs for the education of educators must establish linkages with graduates for purposes of both evaluating and revising these programs and easing the critical early years of transition into teaching" (1994, p. 91).

One of the first questions raised by Goodlad is: "Are there any mechanisms to maintain continued contact with program graduates?" STEP does not maintain an up-to-date list of alumni. In preparation for an alumni survey, the evaluation team found a few lists of STEP alumni; the External Relations Office maintained the most comprehensive list. However, none of the lists provided an accurate or up-to-date record of alumni. This is one indication that routine alumni contact is not maintained. Faculty and STEP administration confirm this observation. Graduates also confirm this observation, rating alumni satisfaction with STEP contact 2.3 on a 5-point scale and reporting a lack of connection with STEP in focus groups.

According to Darling-Hammond (1998b), "attrition of beginning teachers hover(s) around 30% over the first three to five years of teaching." (See also National Center for Education Statistics 1997.) She also points to the quality of early mentoring or support during initial years in teaching as a critical factor in teachers' decisions to remain in the profession (Darling-Hammond 1998a).

The Director recognizes the value in maintaining contact with alumni. In addition, some individual faculty members maintain contact with alumni in their subject matter area. Continued contact with STEP graduates is important for soliciting feedback about the program, providing a support group during early years of professional life, and engaging in scholarly discussion about emerging issues in education. However, this ongoing collegial support is rare, inconsistent, and dependent on individual faculty commitment.

Alumni consistently report a need for contact with other alumni and STEP for support, guidance, and ongoing professional development, particularly during their first year of teaching. Many graduates report a "thirst for theory" or issues not directly related to the act of teaching in their first and second year of teaching, adding, "Now we know the questions to ask." Recent graduates also report uneven support at their schools, even in districts that have mentoring programs. STEP graduates, from experience in the program, value small group interaction focusing on teaching and classroom issues. However, several districts' mentoring sessions are large group lecture-format and do not address beginning teachers' content area questions.

Alumni represent a valuable and largely untapped resource. Some alumni are recruited to serve as cooperating teachers; however, they could be used more extensively in the program during the academic year at minimal cost. They represent a credible source of information for enrolled students. Their recent experiences in the STEP program combined with their varied experiences during their first teaching years make them valuable resources for interpreting pedagogical, social, and philosophical concerns associated with teaching in diverse settings.

1. STEP administration should make an effort to maintain up-to-date alumni addresses.

2. STEP faculty and staff members should consider additional opportunities to include alumni in the academic program, such as Practicum and Curriculum and Instruction courses. Graduates represent a powerful network to help identify cooperating teachers for placement and to assist enrolled students as they secur e employment.

3. STEP faculty and administration should consider institutionalizing activities or events for STEP alumni, ranging from small subject matter group sessions to continuing educational workshops or courses. The latter are revenue generating activities. Alter natively , alumni might be systemically invited to existing events.

4. STEP faculty and staff members should consider training students to use inexpensive and free educational technology to facilitate on-going alumni contact and communication, e.g., email, listservs, chat room software, virtual classroom, and free videoconferencing software.

5. STEP administration should counsel all STEP students to secure free email accounts from Stanford to facilitate contact and communication, e.g., username@alumni.stanford.or g

These recommendations can be modified and applied as appropriate if STEP implements a 15-month or two-year program design.

PROFESSIONAL DEVELOPMENT SCHOOLS/
UNIVERSITY-SCHOOL PARTNERSHIPS

Tomorrow's Schools of Education: A Report of the Holmes Group (1995) generated five goals to improve the quality of teacher education programs. Two of them are directly related to professional development schools: connecting schools of education with local schools and making schools better places for practicing teachers to work and learn.

Professional Development Schools (PDSs) are partnerships between teacher education programs, local schools, and, increasingly, community centers. The local schools are typically engaged in an educational reform effort. University faculty work closely with local schoolteachers and administrators in PDSs in order to assist them in curriculum, pedagogy, and administration, while learning from local teacher practice. These schools provide a more cohesive environment for student teachers to learn their craft than the environments found in many traditional educational settings. Darling-Hammond notes that many extended teacher education programs "feature professional development schools as sites for student teaching and internships for preservice teachers that allow university and school faculties to work out coherent programs of teacher preparation and work on common problems of renewal and practice" (1998b, p. 8).

Currently, STEP students' field placement experiences are fundamentally dependent on the quality of an individual cooperating teacher and their supervisor. Cooperating teachers, including those who are recognized as exceptional teachers, are not trained to be exceptional mentors. In addition, Stanford faculty rarely play a direct role in the student teaching experience, even though it is arguably the most significant educational experience in the program. A unifying purpose program statement would clarify the role of STEP faculty in this regard, requiring direct involvement to ensure the link between theory and practice or providing the basis for creating a clinical faculty. (Since SUSE faculty are not practitioners and have numerous other demands placed on them, the creation of a clinical faculty similar to the faculty structure in the School of Medicine merits consideration. However, this eliminates an opportunity to link faculty with local school concerns and would incur a substantial cost.) Similarly, local school administrators are not involved in the day-to-day issues and concerns of student teachers. The virtual absence of faculty and local school administrators at this level of the student teaching experience, argues for the creation of an integrated system of support for student teachers.

PDSs vary greatly in quality. Some PDSs, however, provide an integrated and closely-knit environment for student teachers to learn their craft and construct their own identity as teachers. Administrators, teachers, staff members, and student teachers work on problems as part of a team of colleagues.

Critics of these PDSs have argued that they only prepare students for ideal teaching contexts, resulting in students' disillusionment ("crashing, like waves on the shore") when faced with the more typical fragmented, conflict-ridden school systems. They argue that students should not be trained in problem-free environments. Proponents of PDSs argue that students who work in a

more integrated PDS environment are able to see what exemplary teaching and learning looks like in practice. They argue that this experience provides a positive and constructive model for student teachers, enabling them to internalize critical values and practices. In addition, training in these environments provides student teachers with both a vision of what school reform looks like as well as practical tools required to participate in reform efforts throughout their careers. Proponents also argue that PDSs are not problem-free, they simply have different problems. They also view PDSs as evolving educational settings.

The most successful PDSs appear to be guided by the National Network for Educational Renewal, more specifically by Goodlad's nineteen postulates.[7] In addition, the National Council for Accreditation of Teacher Education (NCATE) has produced a set of draft standards for PDSs that are useful (Professional Development Schools Standards Project, 1997). A few successful teacher education programs that have established PDS relationships include Trinity (Texas), the University of Southern Maine, and Ohio State.

Trinity, for example, features a full-year internship in a professional development school. An assessment of that experience concluded that "without argument the most valuable asset of the program is the year-long internship in a PDS, which appears to provide the time and experiences necessary to develop a range of teaching competencies" (Van Zandt 1996, p. 10).

The University of Southern Maine views PDS partnerships not (as) an end but a means by which schools and institutions of higher education seek to accomplish four purposes:

1) Provide an exemplary education for all students,
2) Provide a quality clinical setting for preservice education,
3) Provide continual professional development for teachers and professors, and
4) Promote and conduct inquiry into teaching and learning.

When internships for preservice teachers are found in programs dedicated to these four purposes, the interns are influenced by the context of the whole school. They not only learn about teaching in a classroom, they learn how to be a faculty member, how the structure of the school effects teaching and learning, about the politics of an organization, about the role of unions, and the myriad of other influences that shape our schools (Card, 1998).

Ohio State has also established several PDSs in the Columbus area (Mascazine, 1998).

There are various approximations of PDSs. Cluster schools, for example, consist of a number of student teachers placed in the same school. STEP has established this kind of arrangement in one local school. This concept evolved from the efforts of the "Rethinking STEP" committee.

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[7]This is based on a review of exemplary programs presented at the Developing Teachers Best Practice Conference at Wake Forest University, 1998, as well as a telephone survey and consultation with scholars in the field.

However, it is not a fully integrated PDS experience, nor was it intended to do so. STEP students at the cluster school rarely have time to talk to each other and share common concerns. Stanford faculty are not linked to local schoolteachers' daily practice. Fundamentally, the student teacher is still mentored by two cooperating teachers who are overseen by a supervisor, rather than educated by an entire system of professional relationships.

A few of the obstacles associated with developing these linkages include trust by local school districts, Stanford faculty interest in and commitment to form school/university relationships, and corresponding reinforcements for this kind of investment of faculty time in local schools. In addition, the creation of a PDS-type arrangement would incur a higher cost than any other single consideration in this report. Estimated costs would depend on the specific type of arrangement adopted by the faculty, as well as the scope, depth, and desired timeline to implement such a program.

A drawback associated with assigning STEP students to one school, in a cluster or PDS, is that there are no schools with uniformly excellent teachers. Special screening and monitoring is required with these arrangements.

1. STEP faculty should clarify their role concerning direct involvement in the student teaching experience, given numerous other demands on their time. There ar e trade-offs associated with every decision. A unifying purpose program statement would help guide decision-making in this area. For example, the creation of a clinical faculty similar to the faculty structure in the School of Medicine merits consideration. However, if the unifying purpose statement emphasized the link between SUSE and local schools, then the creation of a clinical faculty might eliminate an opportunity to link regular faculty with local school concerns. In addition, the creation of a clinical faculty would incur a substantial expense that would need to be off-set by revenue.

2. STEP faculty and staff members should establish a more coherent and supportive educational training experience for STEP student teachers, potentially modeled after PDS schools. (Once again this is dependent on the vision presented in a unifying purpose statement.)

3. Additional steps should be taken to evaluate the existing cluster arrangement, with particular attention to both the communication among STEP students at the same school, as well as the interaction of Stanford faculty with local schoolteachers.

The evaluation team was impressed with the number of tenure-track faculty who are currently associated with the program and who have been involved with the program over the years. A significant number of the faculty members currently teaching in the program are recognized scholars throughout the world. The numbers compare favorably with many other teacher education programs and are an important strength of Stanford's teacher education program.

SUSE faculty members, however, have described faculty involvement in STEP as "erratic." One faculty member more accurately characterized it as "uneven." He noted that curriculum and instruction faculty have been invested in the program for long periods of time. However, faculty who teach foundations courses "do not sustain themselves for long periods of time."

Another faculty member who thought there was "thin but broad faculty support" for STEP noted that faculty involvement associated with helping student teachers "become better teachers is marginal." He explained, "the task is pretty much left up to the supervisors who are of mixed quality and the cooperating teachers who often have no sense of what it means to help prepare a new teacher." One effect is that the quality of students' training in STEP is uneven as well, highly dependent, in the students' words, on the "luck" of drawing a good placement/cooperating teachers. (See the Placement section of the report for a more detailed discussion about placement issues.)

Some of the underlying problems associated with faculty involvement in STEP are related to Goodlad's postulates (1994):

> Postulate Four: There must exist a clearly identifiable group of academic and clinical faculty members for whom teacher education is the top priority.

Few faculty at Stanford have teacher education as their primary intellectual or research interest. In the course of 20 faculty interviews, every person agreed that we need a teacher education program and that it is intellectually important to the School of Education. A few faculty members enthusiastically embrace the opportunity to participate in the program. Most faculty members, however, viewed their participation as good citizenry or as a politically strategic activity associated with the School's survival (as compared with the former School of Education in Chicago and other schools that divorced themselves from practice). A few faculty members explained that their involvement in STEP was primarily to learn something about their primary interest within that context. Moreover, students have commented on the absence of professional modeling in STEP courses, noting that some faculty appear detached from course material.

Currently, as noted earlier in the report, STEP faculty do not meet to design or revise curriculum or course content. In addition, few faculty are involved in the daily personnel, budget, and program concerns (Postulate Three). Although these are primarily administrative responsibilities, faculty involvement in these operational concerns is critical to guide the program in a manner that is consistent with its underlying purpose or mission. One senior faculty member reported: "I do

not perceive that faculty are working collaboratively on the program.... rather, each faculty member is offering an important course designed largely in isolation from the central activities of STEP." This statement is congruent with findings about the disjointed nature of the curriculum described earlier in the report. Thus, there is little evidence of what Goodlad calls "true collaboration among faculty members devoting differing proportions of their time to differing components of the total program" (Postulate Four).

Current faculty and faculty formerly associated with the program have stated that rewards, recognition, and status do not accrue in the same manner as in areas outside the STEP program. Some complain that faculty who have been brought in to teach in the program leave either because the STEP courses can be "cruel to teach" and/or the time devoted to the program does not yield the same status, reward, recognition, and respect as other work in the School. One faculty member explained that her position was not viewed as prestigious and that's why she decided not to continue working in STEP. The absence of prospects such as professorial title, tenure-track status, and tenure were raised as problematic and not "in one's long-term interest" in regard to teaching in a teacher education program. These concerns speak to Goodlad's Postulate Two:

> Programs for the education of educators must enjoy parity with other professional education programs, full legitimacy and institutional commitment, and rewards for faculty geared to the nature of the field (1994).

He explains this postulate by asking questions such as:

> To what extent do the institutional criteria for promotion and merit recognition include consideration of the particular nature of the demands in teacher education?

> Has (there been) any serious, sustained effort to revise (the) merit, promotion, and tenure system in order to attract and reward faculty for significantly increased involvement in the teacher education program?

> To what degree does there appear to be parity for those involved in teacher education in regard to salary levels, leaves and sabbaticals, amenities of the workplace, and respect? (Goodlad, 1994, p. 75)

1. Develop a plan to bring Goodlad's Postulate Four to fruition: *"There must exist a clearly identifiable group of academic and clinical faculty members for whom teacher education is the top priority."* (Currently the School of Education does not have a clinical faculty. However, the creation of a clinical faculty merits consideration as discussed earlier in the Professional Development Schools section of the report.)

2. Develop a plan and commitment to realign the status, reward, and recognition system in a manner that reinforces participation in STEP. (This is linked to Goodlad's Postulate Two.)

3. Continue to attract and retain regular faculty with relevant research records specifically in the program. (This is also linked to Goodlad's Postulate Two.)

According to Goodlad's Tenth Postulate, "Programs for the education of educators must be characterized in all respects by the conditions for learning that future teachers are to establish in their own schools and classrooms" (1994, p. 84).

A few of the questions posed in unpacking this postulate are:

1. **What is the ongoing programmatic effort to raise consciousness among the faculty regarding the need to demonstrate excellence in teaching, quality content throughout, use of a wide range of instructional materials, attention to the nature of the physical environment, the nature of the student-teacher relationship, and so on? In other words, what is the responsible faculty group doing to ensure that what it does on a daily basis is exemplary in all respects?**

2. **What efforts are made to see through the eyes of teacher candidates what they see in their teachers and in the programs provided? What conclusions can be drawn from the information available? What efforts need to be made to secure more information on this perspective?**

3. **Are future teachers being encouraged at all times to evaluate what is being done to them and happening to them in the program and to relate their perceptions to their own self-expectations? (pp. 84-85)**

STEP has excellent teachers among the Stanford faculty and adjunct instructors teaching STEP courses. They use a wide variety of instructional activities designed to engage students and facilitate learning, including small group work, jigsaws (group work in which each student on a team has a piece of the puzzle in a classroom exercise), simulations, role playing, and other thought provoking exercises. In addition, a few faculty members explicitly link their course work to student teacher classroom activity.

However, one of the most common student complaints concerns problems with the instruction they receive in their Stanford courses. STEP students are particularly critical about instructional practice because they are here to learn how to teach and they want exemplary teachers as models. In addition to excellent quality instruction discussed above, medium or inconsistent and poor quality instructional practices were observed, including lecturing students for two hours at a time about student-centered learning, curricular redundancies, lack of accountability for assignments, and inadequate scaffolding of ideas and concepts. Alumni also identified teaching quality and effectiveness as significant problems.

EVALUATION OF COURSES AND INSTRUCTION

The Director solicits feedback from students on a regular basis about their experiences in the program. This information is rarely shared with the full STEP faculty for consideration and discussion. In addition, the information is typically not linked to specific courses. The Director

does not currently have access to students' end-of-quarter University course evaluations. University course ratings and comments by students are returned only to individual instructors. Such limited access to student evaluations makes it difficult to link student response to specific courses or instructors with the intent to improve the quality of teaching program-wide.

Moreover, there does not appear to be an explicit and ongoing effort to raise consciousness among faculty regarding the importance of demonstrating excellence in teaching. Modeling excellence in teaching is important for several reasons, among them the instructors' credibility with the STEP students, who are necessarily attuned to the preparation of their professors and the effect of their presentation of material in class. In addition, faculty receptiveness to student comments about instructional practice in the program is an important feature of a pedagogically reflective teaching and learning culture.

A few faculty members ask for student feedback about their teaching and make mid-course corrections in response. Some have dramatically improved their performance during the course and in subsequent courses taught within the same calendar year. Most STEP faculty, however, do not regularly solicit evaluative feedback about their teaching from their students, aside from the requisite student ratings at the end of the course.

1. STEP faculty and administration should discuss the role of excellence in teaching, fostering a climate in which successes, failures, and well thought out pedagogical experimentation can be shared in a "safe environment" in order to improve practice.

2. STEP faculty and staff members should consider institutionalizing mid-course evaluations so those instructors can make mid-course cor rections as needed.

3. STEP staff members should consider establishing routine mechanisms designed to help "see through the eyes of teacher candidates what they see in their teachers and in the programs." Moreover, this information should be shared with STEP faculty , discussed, and used to improve practice. (Anonymous web-based surveys could be developed to facilitate this process.)

4. STEP staff members should consider developing workshops or, at minimum, guidelines for STEP faculty, tailored to teaching in the STEP program. The workshops should be guided by an overarching, consensually agreed on philosophy for the program. In addition, an assumption underlying this recommendation is that teaching requires continual attention and that everyone can benefit from additional guidance and assistance, in the spirit of life-long learning. Guidelines would incur minimal cost. Workshops would require a modest line item in the budget, including materials, honoraria, travel costs, and related expenses.

5. STEP faculty and administration should consider institutionalizing evaluation in the program. This might involve some combination of: an assigned evaluator conducting or facilitating an internal or self-evaluation and/or an external evaluation site visit team. The cost might range between $20,000 to $30,000 depending on the scope required.

6. SUSE administration should remind faculty that high quality teaching is valued and will be recognized and r ewarded within the merit, promotion, and tenure system of the School and University, along with outstanding r esear ch, grants, and publications. Additional mechanisms should be considered in order to attract, rewar d, and retain talented instructors (from the regular and practitioner faculties) in STEP and to improve the general quality of instructional practice in the program.

One of the most significant findings discussed in the STEP Summer School evaluation report focused on students' "grueling" schedule. Typically, students arrived at Peterson Middle School by 8:00 a.m., finished observing or teaching by 1:40 p.m. and then rushed to Stanford in order to attend their 2:15 p.m. class. This class was followed by the last class of the day, which met from 4:15 to 6:00 p.m. (or later).

One student wrote at the end of the summer school experience, echoing the sentiments of the overwhelming majority of her STEP peers, "During summer school @ Peterson (Middle School), I honestly felt it was physically & mentally impossible to meet all the demands. To get five to six hours of sleep and expected to spend 12 hours @ school on top of 100-150 pgs of reading per night is not realistic...I think this really affects the quality of our learning and the ability to process...The question is, does it have to be this way?" (See Fetterman, Dunlap, Greenfield, and Yoo, 1997).

These summer school program findings foreshadowed current year-long evaluation findings. Students expressed concerns about their schedule throughout the year, as they juggled course work and student teaching without sufficient connection between the two experiences. Required readings became one of the first casualties of their schedule. As students' loyalty shifted from Stanford courses to their classrooms, inattentiveness and disrespectful behavior during class, as well as poor attendance, became frequent patterns. In addition, most faculty teaching in STEP commented on the need to "unpack" the program, providing STEP students with additional time to process or digest the material.

Thus, many indicators suggest that the program should be lengthened. Moreover, as Linda Darling-Hammond finds, "Teachers who have spent more time studying teaching are more effective overall, and strikingly so for developing higher-order thinking skills and for meeting the needs of diverse students" (1998, p. 7).

STEP offers a one-year, four-quarter program. Students are attracted to the program because they receive a credential and a master's degree in one year. However, several comparable teacher education programs operate on a 15-month program schedule including: Columbia, Bank Street, Vanderbilt University, and the University of New Hampshire. These programs also offer students the flexibility of completing their work in two years. Several admissions officers commented that while the 15-month program is doable, it is extremely intense, stating that most students opt to complete their program in two years. UCLA, University of California—Berkeley (math and science), and University of California—Santa Cruz all offer teacher education programs that span two academic years for both a masters and a teaching credential. In order to facilitate a teacher's participation in their program, Columbia has recently initiated instruction over the World Wide Web. Such options will not only allow teachers to complete classes while teaching in geographically remote areas, but it will promote technological integration into the novice teacher's planning.

The idea of a second year in the program is in some respects similar to the State of California's Beginning Teacher Support and Assessment (BTSA) Programs. These programs are designed to provide beginning teachers with support, mentoring, assessment, and advanced study. However, instead of relying on the availability and quality of a specific BTSA program, a second year would build the support and advanced study directly into the program.

At focus groups, enrolled students expressed an interest in a two-year program, if tuition remained unchanged. The reasons supporting a two-year program design included time to reflect on "what you are doing"; additional support during their first teaching year; and an increasing receptivity to theoretical and research-related issues (not directly related to the act of teaching). Alumni focus groups also endorsed the idea of STEP-based support during their first year of teaching, reporting a need for support even in districts with mentoring programs.

There are caveats associated with implementing a two-year program. Understandably, students were not interested in applying to a two-year program at full tuition. In addition, the same students who appreciate the concept of a two-year program stated they might not have applied to a two-year program when first considering applying to Stanford. Students also expressed a concern about improving the quality of the existing program and streamlining the curriculum, before considering lengthening the program.

In addition, many of Stanford's competitors offer one-year programs including: Harvard, Michigan, University of California, Santa Barbara, and University of California, Berkeley (CLAD English Program). Mills College is a one-year program with a second year option.

In essence, a 15-month or two-year program design has implications for the market niche that STEP currently occupies. STEP would be attracting a different population of students; possibly students who immediately grasped the importance of a 15-month or two-year training period. However, it would not attract the overwhelming majority of students currently enrolled in the program.

There has also been some initial discussion about creating an education track for undergraduates, which has considerable merit.

1. STEP faculty and staff members should unpack the existing compressed program. In addition, an effort should be made to streamline the existing curriculum where ever possible. The time devoted to teaching some courses in the program could be significantly reduced without reducing the content provided, based on student responses and evaluation team observations.

2. SUSE administration should consider offering a 15-month to two-year teacher education program design without placing students at a significant competitive disadvantage in the educational marketplace. Consideration should be given to implementing this recommendation over a two to five year period. In addition, a pilot two-year program during this market test period merits consideration.

Cost estimates would be prudent after faculty have crafted a unifying purpose or vision of the program. A cohesive portrait of the program is required in order to determine relevant and required program activities, courses, and priorities. A list of required activities and functions is needed to estimate the appropriate length of the program. In other words, program length is dependent upon selected educational, philosophical, and fiscal assumptions.

The following is one configuration [8] that would offer an expanded program with little additional cost to the students:

- During the first year students would complete much of their course work, while participating in their year-long field placement as student teachers. They would be charged at the cur rent tuition rate. In addition, students would earn a preliminary credential at the end of the first year.

- During the second year students would be employed as regular (preliminary licensed) teachers. This second year would serve as a support structure or system for first-year teachers, reinforcing BTSA and other similar programs designed to facilitate the induction of new teachers into the profession.

- Tuition would be minimal during the second year, covering expenses such as virtual classroom maintenance fees, continuing education course fees, and possibly related health insurance fees.

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[8]Some of the assumptions underlying this configuration include: first-year students are focused on practical, classroom management concerns; first-year teachers need additional guidance and support; there is no market for a two-year program at full-tuition; students desire a credential and a masters; students would prefer to be in the classroom as paid teachers as soon as possible; students are more reflective and open to research after their first year of student teaching; and virtual classrooms and listservs are inexpensive tools to facilitate communication (particularly for first-year teachers working in geographically remote areas from Stanford).

- Students would also conduct research on their own classrooms as part of a reflective academic project or series of courses during the second year.

- First-year courses would focus on classroom applications and practical teaching concerns of beginning teachers. The second year would be an appropriate opportunity for more theoretical and research-based course work.

- Students would receive their masters and a clear credential at the end of the second year .

- Students teaching far from Stanford campus could participate in virtual classrooms in order to complete these course requirements. This would enable them to maintain their teaching responsibilities and participate in an academic learning community .

3. SUSE administration should consider the creation of an education track for undergraduates. It represents a useful and valuable course of action.

PROGRAM SPECIFIC FINDINGS

ADMISSIONS

Admissions represents the port of entry into the program. It is a gatekeeping or screening mechanism that has implications for the daily operation of the program and Stanford's contribution to the teaching workforce. Topics highlighted in the review of admissions included: recruitment and application materials, consistency of screening criteria across subject areas, and minority admission, enrollment, and retention.

A review of STEP recruitment and application materials suggests room for improvement in the presentation of STEP information and brochures. SUSE-wide efforts are being made to improve in this area.

Overall, there was tremendous consistency in screening criteria across subject areas. The average and mode GPA was 3.4 for 1997-98 and 1998-99 STEP admittees. In addition, the caliber of undergraduate schools attended was comparable, with the minor exception of the 1997-98 STEP math admittees. Typical undergraduate schools included Yale, University of Pennsylvania, Stanford, Harvard, Cornell, and University of California, Berkeley. Santa Clara, California State, Fullerton, University of California, Riverside, among others were also attended by STEP admittees. The yield was 65% in 1997-98 and 69% in 1998-99.

The total GRE scores for 1997-98 were 1747 and 1867 for 1998-99. Verbal, Quantitative, and Analytical scores were comparable for the same period. The average verbal score of 400 for the math subject group in 1997-98 was the only exception to the pattern of screening consistency.

Although STEP faculty have not established a unifying purpose or mission at this time, individual STEP faculty and administrators have made a commitment to ethnic and racial diversity in the program. In addition, the preparation of minority teachers is a relevant concern given the increasingly diverse student population in California and the nation.

STEP has maintained useful minority enrollment statistics over the last decade. However, minority enrollment figures have included Asian Americans. A more useful portrait of minority enrollment in the program would focus on historically underrepresented groups, such as African Americans, Mexican Americans, and Latinos.

The Mellon Foundation Program made it possible for STEP to attract historically under-represented groups. For example, the percentage of students of color in the program (excluding Asians) ranged from 32% to 26% during the period of 1992-1996. The Fellowship funds

supported 15% of the enrolled students during this period. However, the Fellowship is no longer available and minority enrollment has decreased significantly. Minority student applications declined from 32% to 13% between 1996-1999. Correspondingly, minority enrollment in the STEP program declined from 27% to 14% during this same period.

**Total Applicant and Minority Student
Enrollment 1991-1999**

Legend: □ Applied   ■ Entering
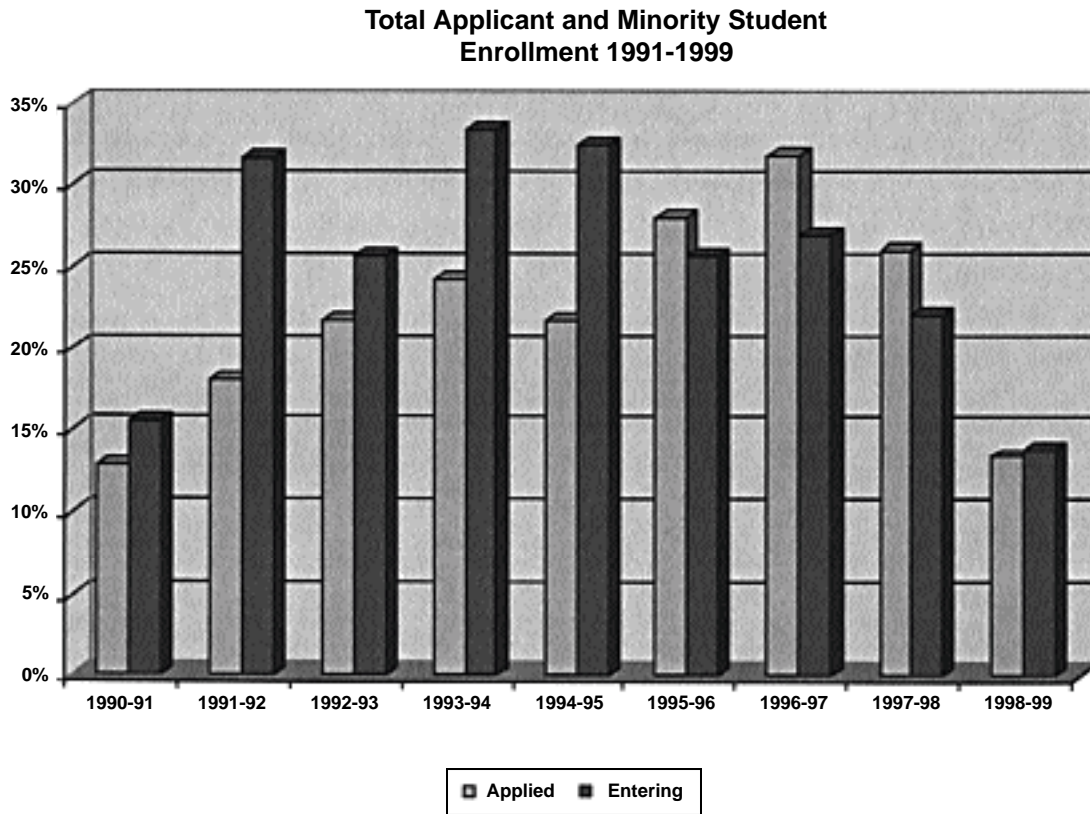
RECOMMENDATIONS

1. Continue to work with the central SUSE admissions office to enhance the quality of recruitment and admissions materials.

2. Continue to maintain consistent screening criteria for the review of applicant and admit pools by subject area.

3. Clarify the definition of minority status when reporting minority enrollment figures. For example, the emphasis should be on traditionally under represented minority groups, if the focus is on ethnic diversity. (This focus and definition should be guided by a faculty established unifying purpose.)

4. Consideration should be given to securing additional funding to enhance the intellectual and social diversity of the student population. Specific attention to minority fellowships and scholarships is merited. Additional targeted recruitment efforts may also be merited to increase the pool of minority applicants.

5. Consideration should also be given to creating structures designed to increase minority student retention in the program as needed.

There were two phases concerning placement: 1) interviewing STEP students at Peterson Middle School to learn more about their preferences; and 2) the process of matching students with cooperating teachers.

Students were satisfied with the first phase of the placement process. They commented that the Placement Coordinator asked the right questions and listened to them. This is confirmed by evaluator observations of this interviewing portion of the placement process.

Students rated this experience a 3.7 on a 5-point scale immediately after completing the interview phase of the placement process.

Placement - Interview

1

| 1 | 2 | 3 | 4 | 5 |

1 poor   3 satisfactory   5 excellent
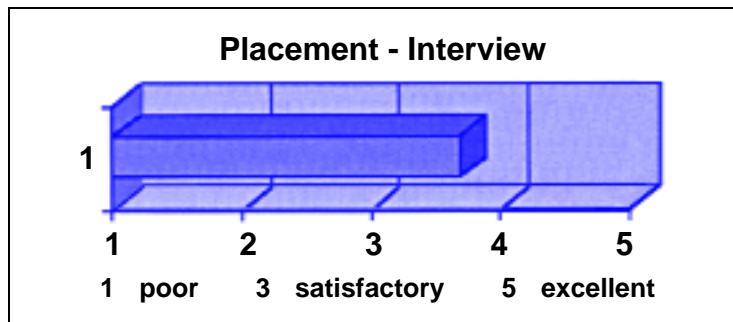
Students were dissatisfied with the second part of the placement process, the process of matching them with cooperating teachers. They rated this part of the placement experience 2.6 on a 5-point scale.

Placement - Matching

1

| 1 | 2 | 3 | 4 | 5 |

1 poor   3 satisfactory   5 excellent
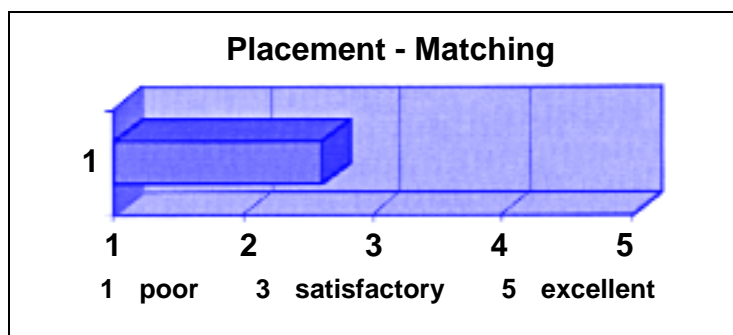
Students thought that a database containing information about cooperating teacher's experience and teaching styles would help them make more informed decisions, recognizing that an exhaustive data base would not be feasible. They were concerned about the lack of information available to make placement decisions.

Several students also noted the lack of continuity after their initial interview. Comments included: "she seems to have listened to what I was saying and then completely forgot it when it came time to match me up with a cooperating teacher" to "I had a good placement but I feel it was just my luck—it had nothing to do with the coordinator."

In addition, a number of students in different schools commented that: "(the coordinator) did not return telephone calls to the district" and "there is too much for one person to do." These indicators suggest a possible workload problem.

These concerns were compounded by the manner in which the placement process was communicated to students. They were initially told that they would have a choice of two cooperating teachers. However, mid-summer they were told that they would have to select or reject the first cooperating teacher before they could interview the second one. In addition, although STEP administration made every effort to try and make this change rapidly, rumors about the change in practice spread before the official announcement. Students perceived this change as a mid-stream policy change.

The key issue concerns communication, not the actual placement practice. The option of having a choice between two cooperating teachers and selecting or rejecting one before interviewing a second one is different from a students' perspective, but one is not intrinsically better than the other (given all the factors involved, e.g., administrative logistics as well as student flexibility). A well-known teacher education program on the East Coast does not give students any choice. They make the placements for them. In this case, STEP students' expectations concerning choice were high. STEP students thought their flexibility was severely eroded and many students did not think that STEP administration acknowledged that this was a reduction of choice.

Finally, a few poor matches might have been avoided with additional screening or better communication with principals or vice principals about recommending only teachers who are good mentors. This may require additional informal interaction with district personnel as well as direct personal contact between the STEP student and the prospective cooperating teacher.

1. Retain the interview process if student choice or input remains a desired part of the process. Alternatively, STEP might consider making the placement assignments for STEP students using the interview as additional data for decision making.

2. Support and reinforce the placement coordinator 's activities, particularly in the area of matching students with cooperating teachers and communication with district liaisons.

3. Select a placement procedure and apply it consistently whenever possible.

4. If a change becomes necessary during the actual placement process, then it needs to be communicated quickly and clearly before rumors circulate about possible changes in practice.

5. Continue to promote personal contacts with potential cooperating teachers and school departments.

6. Explore the idea of providing an informal social with districts at the beginning of the academic year for new students. This should be at minimal cost, approximately $250.

7. Continue to help students access the best sources of information about prospective cooperating teachers, including personal contact when feasible. Consideration should also be given to helping STEP students secure additional information about cooperating teacher teaching styles from cooperating teachers.

8. Continue to screen cooperating teachers to maximize high quality and minimize matching problems.

9. Consider utilizing supervisors and exemplary STEP alumni more extensively to enroll high quality cooperating teachers.

10. Reinforce existing efforts to communicate with cooperating teachers about the commitment and responsibility that is required to be involved with STEP.

Overall, supervision represents one of the strongest elements of the program. Students are assigned supervisors throughout the academic year beginning in autumn quarter. There are 16 quarter-time supervisors with varying degrees of experience, including mostly seasoned teachers and those with a few years of experience. Graduate students, with minor exception, logically represent those with the least experience. Typically, the supervisor is responsible for evaluating and coaching a group of approximately four students. They are responsible for assessing their progress and instructional practice on-site in the students' placement classrooms, conducting nine classroom observations per student each year. In addition, they facilitate weekly small group sessions. During these small group sessions, students often share their best and worst teaching experiences, fostering a sense of community problem-solving and professional collegiality. These sessions frequently function as collective planning and debriefing sessions or focus specifically on a topic, such as student assessment, that closely relates to improving instructional practice.

The STEP supervising coordinator is responsible for ensuring that supervisors meet regularly with their students, conduct classroom observations, and complete all required paperwork for establishing contracts at the beginning of the placement and STEP student evaluations throughout the academic year. The supervising coordinator has excellent rapport with the supervisors and an efficient and effective management style. She holds monthly or bimonthly meetings as needed with supervisors to facilitate communication and collaboration among supervisors.

Supervisors provide instructional guidance, suggestions about classroom issues that STEP students encounter, and emotional support throughout the school year. A critical role of supervisors in the program is captured in the following example. A STEP student expressed extreme discouragement in her teaching assignment throughout the autumn quarter. Her students did not respond to her and a few parents challenged her ability and qualifications for teaching their children. Although she had sufficient reassurance from the teaching staff, she felt the school administrators were not supportive. She questioned her competency as a teacher and was seriously considering dropping out of the teaching profession altogether. The supervisor's problem-solving sessions and individualized counseling helped this student build her confidence, resulting in significantly improved teaching performance in the winter quarter. This student, like many of the STEP students, has weathered one of the tests that classroom student teaching regularly presents. This example clearly illustrates the strengths of the supervision component.

Students became aware of the differences in quality or performance among supervisors after approximately one quarter of supervision. Some supervisors were highly regarded as classroom experts, providing insights and suggestions concerning the fine points of teaching and offering a wealth of suggestions for curriculum, classroom management, and instructional planning. They were often the same supervisors who created a "tight" mutually supportive group atmosphere among the small group members. However, other supervisors, usually those with less classroom teaching experience, focused more narrowly, for example, on lesson planning. Although well

intentioned, they were not able to draw from the wealth of classroom experience or provide the same level of insight and understanding of teaching as their seasoned counterparts. There was one experienced supervisor whom students did not feel they could trust with personal teaching experiences and problems because confidential information was shared with other STEP students.

Supervisors also provide a critical role in negotiating with cooperating teachers. In a few instances, supervisors intervened effectively to clarify and structure the STEP students' role in the classroom. They also provide an independent perspective about the students' work loads. However, both supervisors and students have explained that the boundaries or parameters of supervisor roles are not clear, particularly as they relate to negotiating with cooperating teachers and supporting STEP students.

In this regard, some supervisors were concerned about first meeting cooperating teachers and visiting the classrooms after STEP students have begun their placements. Some supervisors also expressed a concern that the nine classroom observations per student each year may not be sufficient to accurately assess and assist students.

Finally, supervisors bring different talents to bear during group facilitation. Extreme caring and tenderness characterize some supervisors, while others are recognized for the ability to provide critical or "wise feedback." A combination of these approaches appears to be the most useful and effective for STEP students.

RECOMMENDATIONS

1. Maintain the role of supervisors in the program.

2. Maintain the present 1 to 4 ratio of supervisors to students. (This recommendation is made with the understanding that this ratio compares favorably with larger programs and thus is more expensive than larger ratios. The recommendation is made because of the value of this role in the program, the value of small groups for open disclosure, and the quality of service delivered).

3. Clarify the role of the supervisor as liaison between Stanford and cooperating teachers and schools.

4. Consider additional strategies to foster communication between supervisors and school personnel in cooperating schools.

5. Consider strategies to ensure that all supervisors attend an initial baseline training session. All supervisors, particularly newly hired ones need to understand STEP's requirements and expectations. In addition, guidelines might be provided concerning the particular needs of STEP teachers-in-training and attributes of exemplary supervisors, e.g., caring, critical or "wise feedback," and tenderness beneath one's honesty. These guidelines would be useful to both newly hired and seasoned supervisors. They should also include standards for confidentiality.

6. Consider explicitly recommending (possibly as part of a set of supervisor guidelines) that most supervisors front-load observations, so that the majority of observations are made in the autumn and winter quarters when students need feedback most. (This increases the frequency of observations at the formative stages of teacher training without adding to the overall supervisor workload or impacting the budget. In other words, it is both feasible and cost effective.)

7. Continue to include supervisors in the beginning-of-quarter meetings with the course instructors. Use additional strategies to foster communication between super visors, faculty, and others responsible for the program to facilitate communication throughout STEP.

8. Consider an even earlier start date for supervisors to coincide with public schools' opening, which is often in late August. (This is feasible and will not impact the budget.)

Each STEP student is required to compile a portfolio, which is a collection of student products created throughout the year. Portfolios include items such as lesson plans, papers, and reflections, which are usually contained in a three-ring binder. The portfolio represents a culminating experience in the program and is intended to be a tool for reflection about teaching and learning, as well as a tool to secure employment. At the end of the year, students are asked to present some aspect of their teaching and learning at a portfolio conference. Portfolios are used in many high quality teacher education programs.

Both the portfolio itself and the conference provide students with an important opportunity to highlight many of their products and experiences. The overwhelming majority of current students surveyed and interviewed stated that the portfolio was an important part of the program. Alumni also explained that they periodically return to their portfolio; for some it provides useful resources and for others it represents a yearbook-like reminiscence. Most STEP students, current and alumni also favor the idea of presenting their work before their peers, supervisors, cooperating teachers, and other educational colleagues at the portfolio conference.

A review of the portfolios and student presentations this year and last year by the evaluation team clearly indicates the value of this experience as a crystallizing experience. In addition, the Director uses the portfolio to demonstrate how teachers meet the requirements for receiving their credential.

However, there is room for improvement. Although many parts of the portfolio receive feedback because they are products of earlier assignments, particularly the reflective write-ups, some parts do not receive direct feedback. Many students reported that the portfolio was completed in a rushed manner. Alumni characterized the process in the same fashion. In addition, they emphasized how little reflection was associated with the effort, including examples of cutting and pasting sections of their admissions statements and completing the entire portfolio within a few days. Some alumni question whether anyone ever reviewed them. One alumna stated that she did not remember receiving any feedback about her portfolio. Another alumna said she was embarrassed when colleagues asked her what product she produced for her master's degree because she could only point to her portfolio in lieu of a thesis or other product that required substantial effort. There is also no use of the web to store and display portfolios, as noted in the curriculum section of this report.

One faculty member raised a concern about the summative rather than formative nature of the portfolios. He described his image of a professional development portfolio as one that "would show your development and growth throughout this period of time." He continued: "A different kind of portfolio is one that you use for job hunting and there you don't trace out your mistakes. You put yourself in your best light. These are best light portfolios and I do not see in them (what you would expect in) a research oriented program (where) portfolios were designed to help students and faculty study growth and professional development in the program."

Duke (Thorne, 1998) and the University of Southern Maine's (Card, 1998) portfolios are formative rather than summative efforts and include a students statement about their philosophy of teaching and other essential questions at the beginning of the year, often during the first week of the program. They use this and other statements as part of a year-long process of development. Trinity (Moore and Breidenstein, 1998), Wake Forest University (McCoy and Evans 1998) and The Ohio State University (Mascanzine, 1998) have adopted similar approaches in their research portfolios.

The STEP portfolio can serve both reflective research and employment purposes.   It can be used to formatively document change over time to study growth and summatively present a final, finished, or polished product for employment purposes.

RECOMMENDATIONS

1. Continue to use portfolios and portfolio conferences in the program.

2. Establish mechanisms and processes to ensure a reflective and thoughtful process.

   For example, consider making portfolio assignments earlier in the year, such as the first weeks of the program. Students could be asked to describe their philosophy of teaching when they first enter the program and at the end of each quarter throughout the program to document change over time. Similarly, classroom management and other topics might be assigned later in the year, discussed, revised, and included in the portfolio. Comparable teacher education programs have adopted this approach toward portfolio development.

   Continue to make portfolio assignments at various intervals during the academic year but with a series of enforced deadlines for each component to minimize the last minute deadline pattern of behavior .

   Create a process to ensure that all students receive continuing feedback on their portfolios throughout the year, rather than at the end of the process. For example, students might be required to submit sections of their portfolio to their supervisor and small Curriculum and Instruction group for review and then revise their submissions based on this feedback. One section of their portfolio might include their initial submission, comments, and the revision of each section.

3. Consideration should be given to using the web to help store and display portfolios.

4. Use a unifying purpose statement to determine if the portfolio is primarily designed to be a reflective or an employment tool.

Education is currently at the forefront of American consciousness. It has been an explicit part of the U.S. President's national agenda and address to Congress. An educated citizenry has listed it as one of its highest concerns in the polls. Americans have long believed education is the ticket to a better future.

Much of this concern is driven by a belief that the educational system is failing our children in this country. International comparisons do not favor the United States. Gross inequities between rich and poor schools have raised questions about differing opportunities to learn and doubts about the fairness of our educational system. Overall, there is a question about how well we are preparing our youth to actualize their potential and contribute to a global, competitive economy.

The National Commission on Teaching and America's Future argue in their report *What Matters Most* that "recruiting, preparing, and retaining good teachers is the central strategy for improving our schools."

Stanford's contribution to improving education ranges from theory to practice. STEP represents an explicit contribution to the preparation and retention of good teachers. Moreover, Stanford can be a model for teacher education programs throughout the United States. However, there is much work to be done. The evaluation findings and recommendations presented in this report, the report to the President of the University, and the summer evaluation report[9] provide administrative decision makers, researchers, and practitioners with a set of options and recommended paths to follow. The next steps must be led by the faculty in the School of Education. The future of the program and in part the quality of teacher education in the nation rest in their hands.

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[9]See Fetterman, Dunlap, Greenfield, and Yoo, 1997.

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METHODOLOGY

NEEDS ASSESSMENT

A needs assessment was conducted between January and June 1997. It was designed to elicit critical concerns and questions about program components and performance. The evaluation team conducted interviews with key stakeholders including the President, Provost, Dean, Associate Dean, STEP director, and various faculty members. In addition, focus groups were held with STEP students and a formal survey was conducted with 1996-97 STEP students.

PLAN OF ACTION

A plan of action was designed to focus the evaluation efforts based on the data from the needs assessment phase of the evaluation. In essence, the evaluation was designed to examine and assess critical features of the program during the program's normal cycle in the academic year, e.g. orientation, summer school, year-long placement, portfolio conference, as well as curriculum and administration throughout the academic year. (See Fetterman, Dunlap, Greenfield, and Yoo 1997, Appendix A for a list of STEP evaluation action plan areas and topics.)

The summer school teaching experience was an initial focus of the evaluation because it has been a problematic and expensive part of STEP and because it is one of the most significant components of the program. STEP students are immersed in a real-world teaching experience during the summer along with academic course work during their first quarter in the program. This experience sets the tone for their tenure in the program and their perceptions of classroom teaching.

DATA COLLECTION AND ANALYSIS

Ethnographic and survey methodologies were used throughout the evaluation. A review of the approach used to evaluate the summer school program provides an insight into the rigor and immersion associated with the entire evaluation effort throughout the year.

During the summer school part of the evaluation, three members of a five-member evaluation team, including the evaluation director, remained on site at the summer school every day during the entire program. Evaluation team members observed and digitally photographed every class on a routine basis and conducted interviews with administrators, master teachers, STEP students, and middle school students.

Qualitative and quantitative data were collected and analyzed. Survey data were used to test observations and working hypotheses throughout the study. In addition, survey data helped

determine the generalizability of specific observations. For example, student survey data about master teachers and Stanford faculty courses were compared with evaluation team members' daily classroom observations and interviews. The data were used to confirm, falsify, and rule out rival hypotheses.

Course outlines and materials were also reviewed. Evaluation team members also participated in master teacher and STEP student orientations to summer school and various school meetings throughout the summer. In addition, master teachers and STEP students were surveyed concerning their perception of the program. (See Fetterman, Dunlap, Greenfield, and Yoo 1997, Appendix B - Master Teacher Evaluation Survey, July 16, 1997; Appendix C - STEP Student Evaluation Survey, May 21, 1997; and Appendix D - STEP Student Evaluation Survey, July 30, 1997.)

The evaluation team also attended the Stanford courses throughout the summer quarter. STEP students were informally interviewed and formally surveyed about these courses. Evaluation team members routinely shared and compared notes and observations concerning both the middle school experience and the Stanford course work. A variety of media were used to facilitate communication during the evaluation including internal memoranda, e-mail, web pages[10], and videoconferencing on the Internet. Non-numerical, Unstructured Data Indexing, Searching and Theorizing (NUD•IST) software was used to analyze interview and observation data. The evaluation team also built in measures to assess its own performance throughout the evaluation.[11]

This approach and attention to detail exemplified the evaluation team's efforts throughout the academic year. Evaluation team members observed Stanford courses each quarter. In addition, informal interviews were conducted with STEP students on a daily basis. Formal STEP student focus groups and surveys were conducted at the end of each quarter. The evaluation director conducted over 20 faculty interviews with colleagues directly associated with the program. Alumni surveys (web and hard copy surveys) and focus groups were designed to solicit input from STEP classes of 1995, 1996, and 1997.

REPORTING

The evaluation reports, memoranda, and informal exchanges provided an opportunity to refine insights, correct misunderstandings, and learn about new avenues of concern. The process was iterative and ongoing, providing program staff members and faculty with evaluative insights throughout the evaluation.

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[10]See the following URL for general information about the STEP evaluation - http://www.stanford.edu/~davidf/step.html. In addition, web pages have been used to facilitate the review of drafts of this report (passwords were required to access the draft report on the web).

[11]For example, the summer school master teacher's survey included one question about the quality of the evaluation team. The response was 9 *excellent,* 1 *good,* 1 *satisfactory*, and one blank. The average was a 4.7 evaluation rating on a 5 as *excellent* and 1 is *poor* scale.