

Standards-Based Assessment of Teacher Candidates' Performance in Clinical Practice

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Learning to teach is a complex and multidimensional process. Many teacher educators agree that learning to teach occurs when theory connects with practice, general propositions and abstract concepts are instantiated in clinical contexts, and field experiences are interpreted in light of a coherent knowledge base. The recently redesigned curriculum of STEP is based on the assumptions that learning to teach requires a tightly-coupled and consistent curriculum with two interlinked strands—one university-based, the other school-based. Furthermore, the process of learning to teach requires planning and trying out plans, thinking and testing ideas, acting and evaluating the consequences of one's actions, discussing and assessing one's work in the company of mentors and colleagues (Feiman-Nemser & Remillard, 1995).

The current design of the STEP curriculum seeks to integrate many areas of knowledge that underlie effective teaching (see Hammerness & Darling-Hammond, this issue). Within this curriculum, teacher candidates observe, plan, practice, and assess pedagogical approaches in specific clinical contexts. To focus on important aspects of teaching and to develop professional consensus among members of the STEP commu-

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nity, one of the central elements of the redesign effort was the incorporation of professional standards in the assessment of teacher candidates' growth and development in their clinical practice as well as in their coursework. This standards-based approach to systematic assessment replaced a process of open-ended observations and subjective assessments of the candidates' performances in their field placements that varied greatly based on the views and observation capacities of different users.

At present, STEP candidates co-teach with cooperating teachers (CTs) in year-long field placements in local secondary schools. Cooperating teachers and university supervisors are expert veterans in the same subject field who lead student teachers through a process of graduated responsibility over the course of the entire academic year. Three times during the academic year, both CTs and supervisors provide formal assessments of the candidates' performance. The final set of such evaluations includes a summary recommendation that is taken into account in the decision about granting a credential. Since 1999, all three quarterly assessments have been grounded in the California Standards for the Teaching Profession (CSTP) and are conducted using a rubric that uses specific content and performance indicators to assess them. In addition, the standards are used to guide and assess coursework and portfolio development.

In this study, we analyzed these assessments of the student teachers' clinical performances for the STEP class of 1999/2000 to explore the following questions:

- ◆ To what extent did students appear to progress in their proficiency on the different standards over the course of the academic year?
- ◆ On which standards did students show the most growth? On which did they show the most difficulty?
- ◆ What were the benefits of using the standards to the learning and assessment processes?
- ◆ What are the challenges in designing a reliable assessment system for teacher candidates' performance in their clinical practice?

Aspects of Professional Learning:
Standards and Supportive Feedback

In this study, we focus on two aspects of professional learning for

teacher candidates: (1) the consistent use of a clearly-articulated, well-understood, and developmentally-appropriate set of expectations for the knowledge and skills required by teacher candidates, and (2) the importance of a sound feedback and mentoring process to support the growth and development of candidates' teaching practice.

Research has indicated that guided fieldwork is an important part of teacher growth; however, increased field work alone, without analysis and reflection, does not necessarily lead to professional growth (McIntyre, Bird & Foxx, 1992). Furthermore, a number of practices have been found to weaken the usefulness of clinical practice experiences. These include a lack of distinction between outstanding and ineffective teaching in assessment processes (Diamonti, 1977; Vittetoe, 1972 as cited in McIntyre et al., 1992), limited utility of summative assessments without adequate formative assessment (Howey & Zimpher, 1989), and a lack of clear roles for many supervisors and cooperating teachers (Williams, Ramanathan, Smith, Cruz & Lipsett, 1997; Cole & Knowles, 1995).

Research on assessment suggests that clear standards and criteria are important for pointing to the goals of learning and performance. However, documents that describe standards or abstract discussions of standards are not sufficient. Analyses of and reflections on performance in light of professional standards are needed to stimulate understanding and growth in practice.

Feiman-Nemser (2001) suggests that in helping novices learn to teach, "mentors take on an educational role, form a pedagogical relationship, (and) engage in educational activity." This framework is based on a conception that learning to teach is, like all learning, assisted performance. Teacher candidates learn through observation and interaction with cooperating teachers who model exemplary practices and make their knowledge and thinking explicit and transparent. University supervisors are equally important mentors connecting the university and the schools. Being in both sites and providing systematic and sustained feedback to the teacher candidates, they strengthen a community that relies on common language, common standards of practice, and a shared vision of quality teaching.

The Use of Standards in STEP

In STEP, university supervisors and cooperating teachers assess candidates' performance in field placements using criteria that are aligned with national, state, and institutional standards. These standards include the California Standards for the Teaching Profession [CSTP] (California Department of Education, 1997), the closely related

standards of Interstate New Teacher Assessment and Support Consortium [INTASC] and the National Board for Professional Teaching Standards [NBPTS]. These standards reflect a vision of good teaching and what it means to be a professional educator. They are used to document what teacher candidates are doing in their classrooms and how they are growing and developing in their practice. The CSTP were developed over a four-year period and formally adopted in 1997 (Whittaker, Snyder & Freeman, 2001). They have become the “cornerstone document for teaching policy in the state of California” and are used as a guide for redesign of pre-service teacher education programs and as an assessment tool for beginning teachers. The CSTP are organized around six domains or areas of performance:

- ◆ engaging and supporting all students in learning
- ◆ creating and maintaining effective environments for student learning
- ◆ understanding and organizing subject matter for student learning
- ◆ planning instruction and designing learning experiences for all students
- ◆ assessing student learning
- ◆ developing as a professional educator.

These standards are the basis for the classroom assessment instrument that is now used in STEP by cooperating teachers and supervisors to scaffold and to evaluate candidate performance throughout a year-long placement in which student teachers move from observing classrooms and co-teaching to fully independent student teaching. By the end of the academic year, candidates are expected to meet each of these standards at a level described as *proficient* on the rubric used for evaluating performance. The standards are also integrated into coursework and assignments. Throughout the program, candidates are called upon to apply their knowledge in use, completing case analyses and performance tasks demonstrating that they can assess student needs, plan for student learning, evaluate and appropriately use materials (including new educational technologies), and enact various instructional strategies.

University supervisors conduct at least nine formal observations of each STEP student across three quarters using the standards-based rubric as a guide. Each quarter, at least one of these observations is videotaped. For each observation, there is a pre- and post observation

conference. For the pre-conference, the teacher candidate provides the university supervisor with a lesson plan. In turn, after the observation takes place, the university supervisor prepares a written report. To complete the observation cycle, the candidate writes a reflection on the visit and on the supervisor's feedback. The reflections address both the intentions and the outcomes of the lesson and consider how strategies will be refined to improve student learning in the future. These observations, in combination with informal observations and weekly small group meetings, inform the formal quarterly assessments by the university supervisors.

Cooperating teachers also complete three such assessments, one per quarter. Both cooperating teachers and university supervisors are encouraged to provide written comments and specific examples that explain and expand the scaled score. The candidates review the assessments with their cooperating teachers and supervisors to further enhance reflection. Candidates also have frequent planning and debriefing meetings with their cooperating teachers.

Methodology

For purposes of this study, we collected and analyzed the quarterly evaluations of teacher candidates by their cooperating teachers and university supervisors. We created a database and used descriptive statistics to describe our sample. We conducted t-tests to measure changes in mean scores on the rubric over time and used correlation analysis to evaluate the inter-rater reliabilities between scores of university supervisors and cooperating teachers.

Study Sample. Fifty-five teacher candidates participated in the program during the 1999-2000 academic year. For each candidate, we collected all quarterly assessments completed by cooperating teachers and university supervisors. Some candidates worked with two cooperating teachers, and had nine rather than six assessments, accordingly; thus, our sample includes 370 quarterly assessments completed by a total of 17 supervisors and 97 cooperating teachers.

*The Assessment Instrument.*¹ The instrument first asks the scorer to list three to five strengths demonstrated by the candidate during the quarter. This open-ended prompt sets the tone for beginning the assessment in a constructive way. For example, one supervisor described the following candidate strengths at the end of winter quarter: "E. adapted quickly and effectively to a new classroom setting, new students, and a new cooperating teacher; E.'s classroom presence has developed this

quarter. He appears comfortable and relaxed in the role of lead teacher; E. is working well with students individually and in small groups. He helps direct them in their learning and guides them through activities in a manner that promotes their growth.”

The assessment tool reflects the six domains of teaching described in the CSTP. Each of the six domains has between four and eight performance indicators, for a total of 39 components. STEP candidates are rated on each of the indicators on a scale that ranges from *beginning to skillful*. STEP expects that its candidates reach a level of *proficient* (level 3 on a 5 point scale) in each of the six domains by the end of the spring quarter. The following descriptors of performance are used to guide ratings on each dimension:

Insufficient Evidence:	evidence too limited to make an evaluation
Beginning:	aware of the standard and understands its importance
Developing Proficiency:	understands and begins to implement the standard
Proficient:	understands and consistently implements the standard
Highly Proficient:	understands and consistently implements the standard for all students in a creative or effective way
Skillful:	understands and consistently implements the standard for all students in a creative AND effective way

The following explanation to scorers is included in the instrument:

Moving across the continuum from Beginning to Skillful, the descriptors of teaching become more complex and sophisticated. Practice evolves from (a) teacher sensitive to student sensitive, (b) assisted to independent practice, (c) fragmented and disconnected to fluid and cohesive teaching, (d) classroom-based to active involvement in the professional community. Consider this scale as a continuum from the most inexperienced novice to the most highly skillful expert veteran. The goal is for the STEP Teacher to be *proficient* in all standards by June. That goal is indicated by the arrow in the box marked “Proficient”. It usually takes more than one year and additional experiences for any teacher to reach the “Skillful” level.

Cooperating teachers and supervisors are asked to include specific examples relating to a particular score. To support the score of 3 on “establishes and sustains a high level of student rapport,” one supervisor wrote the following comment: “R. made great strides in his teaching and

in his classroom management. There is a clear difference now in his relationship with, and respect from, the students." To point to what the teacher candidate should do to raise his score of 2 on "involves all students in assessing their own learning," the supervisor wrote: "M.'s assessment skills are improving, however, I would like to see more practice in student self-assessment."

Finally, on the last page of the instrument, the assessor and candidate discuss and record an outcome of their assessment meeting by responding to the following prompt:

After reflecting on the work of the past quarter, we agree to focus on standard number(s) _____ in the following ways.

Developing Consensus about Standards. Efforts were made to increase shared knowledge about the standards and inter-rater agreement on these instruments. The university supervisors attended quarterly training sessions and met several times each month to discuss issues related to the standards and to the assessments. Cooperating teachers were invited once during the fall quarter and once during the winter quarter to build relationships as well as communicate expectations and objectives. A winter quarter meeting with cooperating teachers and supervisors was devoted to understanding the assessment tool and to discussing the standards. In frequent three-way meetings during the school year, cooperating teachers and supervisors discuss with the candidate his or her accomplishments and goals for future performance.

Coding and Calculation of Scores. For the data analysis, we eliminated the category of *insufficient evidence*, and coded the other categories from 1 (*beginning*) to 5 (*skillful*). The category *proficient* received a score of 3. For each standard, we calculated the average of the scores on all the indicators for that particular standard. For each assessor, we analyzed means and frequencies of candidates' scores on the 39 indicators, aggregated by standard as described above. We use these summary statistics to discuss the questions posed for this study.

Results

Table 1 shows overall means and standard deviations of the assessments by university supervisors and cooperating teachers for each of the three quarters of the academic year. These data show a steady and consistent increase in the candidates' ratings by both cooperating teachers and university supervisors. While the averages in fall and winter are below the target goal of *proficient*, the averages for spring are above that

Table 1
STEP Candidates Scores by Quarter (All Standards)

Means (Standard Deviations) and T-values
 for Differences in Quarterly Average Scores

	<u>Fall</u>	<u>Winter</u>	<u>Spring</u>	<u>Fall- Winter</u>	<u>Winter- Spring</u>	<u>Fall- Spring</u>
Scores by Cooperating Teachers	2.01 (.65) N=65	2.45 (.66) N=71	3.21 (.60) N=69	T= 4.29***	T= 10.35***	T= 12.33***
Scores by University Supervisors	2.17 (.53) N=55	2.59 (.53) N=55	3.19 (.72) N=55	T= 6.80***	T= 12.88***	T= 12.80***

***p<.001

goal at 3.21 (cooperating teachers) and 3.19 (supervisors). T-tests of differences in the means scores indicate that the increases in average scores from fall to winter, winter to spring, and fall to winter are statistically significant for both cooperating teachers and supervisors ($p<.001$).

The same trends are evident for each of the six different standards or domains of teaching (see Table 2). Both cooperating teachers' and university supervisors' scores suggest that a significant proportion of candidates moved from "aware of the standard and understands its importance" in the fall to "understands and begins to implement the standard" in the winter. By the end of spring quarter, cooperating teachers and university supervisors reported consistent implementation of the standards by the teacher candidates.

In further analysis, we calculated the correlations between the scores of cooperating teachers and university supervisors, by standard and by quarter. We found that the ratings were not at all correlated in fall quarter, before much work with supervisors and cooperating teachers on the use of the standards had gotten underway ($r=.06$). Scores by cooperating teachers and by supervisors were significantly correlated for all standards in winter quarter and for a summary score ($r=.49$, $p<.01$), and for all standards but one (developing as professional educator) in spring quarter ($r=.37$, $p<.01$ for summary scores). Efforts continue toward strengthening inter-rater reliability and consistent use of the standards.

Discussion

Results indicate that both cooperating teachers and university

Table 2
STEP Candidates' Scores from Cooperating Teachers (CT)
and University Supervisors (Sup), by Quarter,
by Standard: Means (Standard Deviations)
and T-Scores for Difference Fall-Spring

<u>Standard</u>	<u>CT/Sup</u>	<u>Fall</u>	<u>Winter</u>	<u>Spring</u>	<u>Fall-Spring</u>
#1: Engaging & supporting all students in learning	CT	1.94 (.65)	2.40 (.65)	3.16 (.66)	T-value=11.90***
	Sup	2.02 (.37)	2.49 (.51)	3.12 (.65)	T-value=15.50***
#2: Creating & maintaining effective environments	CT	2.14 (.72)	2.53 (.72)	3.29 (.63)	T-value=10.70***
	Sup	2.20 (.46)	2.67 (.59)	3.27 (.82)	T-value=11.37***
#3: Understanding & organizing subject matter	CT	1.93 (.81)	2.45 (.60)	3.21 (.67)	T-value=11.21***
	Sup	1.97 (.49)	2.45 (.61)	3.07 (.77)	T-value=12.87***
#4: Planning instruction & designing learning experiences for all students	CT	1.89 (.71)	2.38 (.73)	3.25 (.94)	T-value=8.26***
	Sup	2.03 (.46)	2.51 (.58)	3.18 (.79)	T-value=12.06***
#5: Assessing student learning	CT	1.80 (.76)	2.29 (.66)	3.11 (.60)	T-value=12.56***
	Sup	1.97 (.91)	2.38 (.55)	3.02 (.77)	T-value=7.82***
#6: Developing as a professional educator	CT	2.19 (.77)	2.56 (.75)	3.24 (.63)	T-value=10.06***
	Sup	2.67 (.96)	2.91 (.76)	3.34 (.84)	T-value=5.43***

***p<.001

supervisors perceived significant growth in the teacher candidates' performances in their field placements. It is possible that these differences among scores might be an artifact of assessors' general expectations and the assessment instrument itself, rather than reflection of real growth. However, there are a number of reasons to believe that the changes in ratings reflect actual changes in candidates' learning and improved performance in their placements.

First, although cooperating teachers and university supervisors rated the candidates' performances independently, trends across both groups of raters were similar, and scores grew more consistent over time as assessors had more opportunity to see and assess performance. While the ratings assigned by cooperating teachers and supervisors were not significantly correlated in the fall, they were much more highly correlated in the winter and spring. The focus on the content of the standards and the use of the language of standards to discuss and assess practice seemed to solidify their understanding of the criteria and increase the inter-rater reliability of their assessments.

Second, these assessments are but one source of evaluation and

feedback to candidates, who interact with the cooperating teachers on a daily basis, and often have three-way meetings that include the supervisors. In completing their assessments, supervisors draw extensively upon the observation data and the descriptions collected at the time of their visits to the candidates' classrooms. Analysis of the evidence they provide suggests that these multiple sources of information do converge in ways that support the reliability of the quarterly assessment ratings.

Finally, candidates' progress can be connected and mapped onto their experiences in STEP. As we discuss below, the areas of greatest strength and greatest growth for candidates are related to areas of curriculum emphasis and are recognized by both candidates and instructors as areas of substantial learning (for example, curriculum and instructional planning within subject matter areas). Similarly, the areas in which candidates were rated somewhat less proficient are areas in which coursework was less extensive and in which candidates perceived a need for greater skill development (for example, student assessment).

Evaluating Candidate Progress in Light of the Curriculum

Examining the curriculum in tandem with these data about candidate ratings allows us both to evaluate the potential validity of the ratings and to evaluate needs for curricular improvement in STEP. There were several standards on which STEP candidates appeared to experience considerable gains from the perspective of cooperating teachers and supervisors, all of whom are highly experienced educators. Two of these deal with pedagogical content knowledge as reflected in standard #3, "understanding and organizing subject matter," and standard #4, "planning instruction & designing learning experiences for all students." In STEP, teacher candidates develop such subject-specific pedagogy in a three-quarter (nine-month) sequence of subject-specific courses in Curriculum and Instruction (C&I). This C&I sequence is, in many ways, the centerpiece of the learning process for STEP students as it helps them develop strategies for organizing curriculum and for teaching core concepts and modes of inquiry in the disciplines. Students consider questions of purpose (e.g. "Why teach science?") and become familiar with the content standards of professional organizations in their field. They study discipline-specific learning and teaching strategies, and they develop lessons and curriculum units that they try out, reflect upon, and revise.

In his summary reflection at the end of the year, which uses the standards as part of a self-assessment, teacher candidate Ricardo Gonzalez² wrote the following:

Strengths: I have to reiterate how much Curriculum and Instruction has helped me in the development of these standards. I am finding new and exciting ways to make subject matter more accessible to my students by drawing on their backgrounds and their experiences. I have learned a variety of pedagogical techniques to draw in and engage students in their learning. I feel very confident of my content knowledge of the social studies and the concepts and ideas I want to teach my students. Wiggins' backward design, planning and creation of a teaching unit and the teaching event³ helped me see the connections that are sometimes hard to make for students. It also helped me see how skill development is easily incorporated into the assignments that constitute a good unit plan. I was able to reflect heavily on what works in the classroom and what types of things are harder to achieve. Ultimately I learned that planning is one of the most important keys for effective teaching.

Weaknesses: I have to learn to better adjust my instructional plans to student engagement and achievement. I believe very strongly in always maintaining high expectations for all my students, but sometimes I have difficulty in gauging what my expectations should be. I knew I had difficulty with this because of comments I would hear from my students. Comments like "this is too hard or too easy." I know comments like this will arise from time to time but they were frequent during certain times in my classroom. I need to learn how to read when I need to stick with high expectations and when to make them more realistic at times when they are too high for students to reach.

Teacher candidates were rated quite highly on standard #2, referring to "creating and maintaining effective environments for teaching." Learning about the ecology of the classroom, its organization and management is emphasized throughout the STEP curriculum. There is a special course on Classroom Management. A significant portion of "Teaching in Heterogeneous Classrooms" is devoted to learning how to construct effective classroom environments that support teaching for understanding in diverse classrooms. Furthermore, as mentioned above, teacher candidates reflect in writing on the supervisors' observations and feedback. A great deal of attention is devoted to classroom organization and management in those write-ups. All of these sources of learning were referenced by STEP candidates in their end-of-year reflections.

We believe that two additional structural components of STEP contribute to the development of candidates' ability to address these standards successfully. First, the year-long student teaching placement offers teacher candidates many opportunities to design and evaluate different classroom environments and to build connections with individual students; to deploy teaching of subject matter content over the course of an entire academic year; and, to experiment with a wide

selection of pedagogical strategies. Second, candidates move from systematic observations of teachers and classrooms, from co-planning and co-teaching to independent daily teaching through a process of graduated responsibility. This process allows teacher candidates to grow at their own pace and “take over” classes when they feel ready and upon the prudent recommendations of their cooperating teacher and university supervisor. Candidates experience substantial modeling and mentoring in their process of learning to teach.

Although candidates were rated at or above “proficient” by the end of the year on all of the standards, the ratings suggested that the standards that call for “assessing student learning” (#5) and “engaging and supporting all students in learning” (#1) posed the greatest challenge for the cohort of teacher candidates by the end of the academic year 1999/2000. The former standard refers to the need to establish an authentic, coherent assessment system that relies on multiple sources and clearly communicates to the students and their families learning goals and information about performance. In fact, during the 1999/2000 academic year, we felt there was not enough support in the STEP curriculum for teacher candidates to fully develop their ability to respond to this standard. As a result of our analyses and additional feedback about this issue, an extensive module on assessment was added to the Secondary Teaching Seminar during the following academic year. Furthermore, through mutual consultation, STEP instructors who teach the Curriculum and Instruction sequence have decided to connect assessment more closely to curriculum and instruction, in effect designing a sequence of courses that could be more appropriately be entitled Curriculum, Instruction and Assessment. An assessment course is also under development.

“Engaging and supporting all students in learning” is the standard that highlights the need for teachers to build on students’ prior knowledge, life experience, and interests to achieve learning goals; to use a variety of instructional strategies and resources that respond to students’ diverse needs; to facilitate challenging learning experiences for all students in environments that promote autonomy, interaction and choice; to assist all students to become self-directed learners able to demonstrate, articulate and evaluate what they learn; and, to communicate effectively, adjusting the complexity of the language to the abilities of all students. In other words, the emphasis in this standard is on providing equitable learning opportunities and supporting equitable learning outcomes for *all* students: students with diverse backgrounds and students with a wide range of previous academic achievement.

Responding to this standard satisfactorily is one of the greatest challenges for novices and veteran teachers alike. It requires not only

mastery of the different domains of the knowledge base of teaching and a highly developed repertoire of instructional skills, but also a well-developed stance on how education and its institutions must contribute to promoting and upholding social justice in a democratic society. As many other have observed, no one learns to be a teacher in a single year. Not only will it take several years to deepen and broaden beginning teachers' knowledge and practice, conditions such as curricular demands and school organizational factors will need to be in place to allow teachers to practice the kinds of strategies required to respond to this standard adequately. The development of dispositions that will support continued growth and efforts at individual and collective change may be as important as the development of specific teaching skills in these areas. Karen Burton addressed these issues in her end of year self-assessment:

...it is this advice (that you will always have to learn) that has challenged me this year to constantly strive to improve all areas of my practice. When I refer to "practice" and "standards" I am referring to the California teaching standards that we have been encouraged to use as a way of gauging our competence in different aspects of the profession. These standards are the foundation upon which the STEP teacher education is based.

I have worked on different standards at different times this year based on the environment and student population that I was in. If I were to have rated myself on my strongest and weakest areas at the beginning of the year, I would have said that standards two (creating and environment), four (designing learning experiences) and six (professional development) were my strengths. I was very comfortable with my classroom management and felt that I created a safe and effective place where students were able and motivated to learn. While at Riverside, I attended a variety of conferences and workshops and got a good feel for my goal as a "lifelong learner." Standards that I felt I needed to target the most included one (supporting ALL learners), three (subject matter) and five (assessing). In these areas, I desired to see the most improvement. I was aware of very little of the diverse curriculum available to teach in California and worried that I did not have the skills to teach classes in Economics. In addition, I faced the challenge that many (if not all) educators face. I was constantly worried that *all* were not and could not be learning at the same time. The assessments that I used seemed too traditional and I could only imagine making the curriculum easier or more difficult, eliminating learners at either end of the spectrum. In reality, we are all "works in progress." I will be a skillful practitioner only on a situation by situation basis. I think that to assume that there is a final finish line is a mistake.

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Planning an Assessment System for STEP

“What are the benefits and what are the challenges of designing a reliable assessment system for teacher candidates’ performance in their clinical practice?” This is the final question we posed in our introduction to this paper.

We believe that STEP’s system of assessment has been improved by its focus on professional standards that clearly articulate the goals of the program for candidates’ performance. The consistent reference to a shared and increasingly familiar description of exemplary practice provides teacher candidates, cooperating teachers, university supervisors and instructors with the opportunity to develop a shared vision and a shared language. Observation of candidates’ practice, the subsequent feedback by the supervisors and the cooperating teachers, and the quarterly assessments mark candidates’ strengths and diagnose areas for improvement. Such formative feedback throughout the academic year is part of a highly personalized advisement plan by faculty and staff that promotes learning and professional growth.

An illustration of the potential power of a standards-based assessment system can be found in the candidates’ self-assessments at the end of the academic year in their graduating portfolio, which are organized around the California Standards for the Teaching Profession. Eric Smith began his summary in the following way:

Upon entering STEP a year ago, my goal was to gain more confidence and experience in the classroom, learning practical strategies for teaching in addition to investigating the theory behind educational practice. After a year at STEP, not only have I gained more confidence and learned great practices and theory, but I have also learned so much more about the complexities of and motivations for teaching than I could have imagined at the beginning. This truly was a year of growth, both personally and professionally. One particularly useful method of recording my professional growth, which reflected my increasing learning, was gauging myself against the California Standard for the Teaching Profession. Helping me in this endeavor were my supervisor, my cooperating teachers, and my instructors. All of them contributed to the insight, advice, and guidance needed to progress as a teacher throughout the year.

It has been interesting to chart the progression of my evaluation from summer until recently. I feel like I have come so far from the beginning. In regards to the first California Standard, engaging and supporting all students in learning, I feel that my progress has been informed by my classroom observations and the issues discussed in class. One of my professional goals is to always build on students’ prior knowledge and experience in order to help them achieve learning goals.

This necessitates using a variety of instructional strategies that respond to the needs of the students. I feel that I have learned a tremendous amount about meeting the needs of the students, from English Language Learners to classrooms of diverse students. It is a difficult task, but one which I endeavor to remember in all my lessons. In many ways the goals of the first standard should be the goals of any good teacher. Having students make real life connections and helping them become self-directed learners is really the essence of education. I feel that I am learning how to convey these connections to my students, and hopefully do so in a clear and effective manner. This is something that I will constantly be adapting and improving upon, since strategies for engaging and supporting students must be tailored to the specific classroom in which you are working. Every class will have different needs, and will find different ways of reaching the same goals.

Rosemary Brook was proud of her growth in her ability to assess her students' progress and recognizes the benefits of being a member of a highly professional and collegial department:

As a teacher I have experienced the greatest growth this year in standard five: how does the STEP teacher assess student learning? I have learned to communicate learning goals to students on a daily basis as I begin class by going over the day's agenda with my students. In addition, I often tell them why I have planned a particular assignment and what I hope them to learn from it. Before the year began, I had no experience in gathering "information about student performance from a variety of sources (standard 5.2) but I have learned this year to involve students in their own assessments and to use information from homework, other teachers, support personnel, parents, and all assignments to adjust planning and learning activities for students (standards 5.3, 5.4, 5.5). I would like to continue to progress in this standard, particularly in finding more varied sources for collecting information about student achievement and needs. I have been fortunate to work in an ELD department where the teachers and support personnel worked closely to help each student progress. Working in this department has been an important factor in my growth in this standard.

Julie Black concludes her summary reflection with much modesty and great hope:

In summary, I don't believe that I have learned to excel in any of the standards. However, I do feel that I have come a long way this year. I have a much keener awareness of the importance of developing myself in all of the six standards. I have learned where my strengths and weaknesses lie, and I have great interest in making improvements as my career progresses. I think that I am doing well in the areas of classroom environment (rapport with my students) and content knowledge. I know that I have much further to go in the areas of engaging all

students in learning, as well as in the area of professional development. However, the process of developing as a teacher is ongoing, and I am looking forward to the rest of my career to develop myself in all these areas.

In addition to providing evidence for candidates' individual growth and development, these standards-based assessments have proved to be useful tools for evaluating the program and documenting its redesign. This analysis of the overall accomplishments and areas for improvement for the cohort of candidates allowed for evaluations of various curricular and structural aspects of program: what elements produce the intended outcomes and what needs to be improved. We are persuaded that reliable and valid assessment of teacher candidates' clinical practice is a crucial element in learning to teach. Such assessment is valid when it is tightly connected to the curriculum and the pedagogy to which candidates are exposed. It is reliable when assessment is authentic and relies on multiple sources of information. It is most useful when it guides candidates' learning and supports further professional practice.

Notes

¹ The instrument in its present format was adapted and modified from a version used in the teacher education programs at UC Santa Barbara and UC Santa Cruz. It can be found on the STEP website.

² All names of people and places are pseudonyms.

³ Documentation of a "teaching event" is a requirement for the graduating portfolio.

References

- California Department of Education. (1997). *California Standards for the Teaching Profession*. www.cde.ca.gov.
- Cole, A. L. & Knowles, J. G. (Winter, 1995). University supervisors and preservice teachers: Clarifying roles and negotiating relationships. *Teacher Educator*, 30 (3), 44-56.
- Diamonti, M. C. (1977). Student teacher supervision. *Educational Forum*, 41 (4), 477-86.
- Feiman-Nemser, S. & Remillard, J. (1995). Perspectives on learning to teach. In Frank B. Murray (Ed.), *The teacher educator's handbook: Building a knowledge base for the preparation of teachers* (pp. 63-92). San Francisco: Jossey-Bass.
- Feiman-Nemser, S. (2001). Helping novices learn to teach. *Journal of Teacher Education*, 52, (1), 17-30.
- Howey, K. R. & Zimpher, N. L. (March, 1989). Preservice teacher educators' role in programs for beginning teachers. *Elementary School Journal*, 89 (4), 451-470.

- Interstate New Teacher Assessment and Support Consortium (INTASC). (1992). *Model standards for beginning teacher licensing and development: A resource for state dialogue*. Washington, DC: Council of Chief State School Officers.
- McIntyre, D. J., Byrd, D. M., & Foxx, S. M. (1996). Field and laboratory experiences. In J. Sikula, T. J. Buttery, & E. Guyton (Eds.), *Handbook of research on teacher education* (pp. 171-193). New York: Macmillan.
- Whittaker, A., Snyder, J., & Freeman, S. (Winter, 2001). Restoring balance: A chronology of the development and uses of the California Standards for the Teaching Profession. *Teacher Education Quarterly*, 28 (1), 85-107.
- Williams, D. A., Ramanathan, H., Smith, D., Cruz, J., & Lipsett, L. (Fall, 1997). Problems related to participants' roles and programmatic goals in student teaching. *Mid-Western Educational Researcher*, 10 (4), 2-10.