Lessons Learned from M.A. Candidates Pursing National Board Certification

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A Vision for the M.A. in Education

The number of Master of Arts degrees in education granted yearly has risen for years. During the 1997-1998 academic year, over 114,000 M.A. degrees in education were conferred (Earned degrees conferred, 1997-1998). Yet, we seem to know little of their quality or value to teachers in classrooms. Do they build the capacity of teachers to promote their students' learning? Do they result in the development of more reflective practitioners who effectively examine their students' work, learn from it, and modify their instruction accordingly? Do they lead to teachers becoming more engaged in work with their school and professional communities? Answers to these questions that could determine the quality and value of the M.A. in education are rarely sought and even less rarely found (Blackwell & Diez, 1998).

In their vigorous effort to persuade educators to rethink the structure and function of the M.A. in education, Blackwell and Diez (1998) urge that M.A. programs for teachers be linked to standards whose degree of achievement can be carefully measured. The standards they would like to see widely adopted are the National Board for Professional Teaching Standards (NBPTS) that guide teachers in

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their pursuit of national certification. While they would also like to see M.A. programs with coherent requirements, a participatory culture, engaged faculty and students, interactive teaching and learning, and sufficient resources for consistent quality, the National Board (NB) standards would provide over-riding benchmarks to examine and critique the program.

While the Master's program we developed at California State University, Los Angeles (CSULA) was not initially designed with NB standards in mind, the program echoes the call to M.A. reform that Blackwell and Diez trumpet. A discussion of its structure and the lessons we have learned from supporting M.A. candidates who have pursued NB certification as a culminating project within that structure constitutes the core of this paper.

Current Structure of the Master's in Middle and Secondary Curriculum and Instruction

With the support of a determined new associate dean who was committed to revitalizing a moribund M.A. program in secondary education and colleagues in the Division of Curriculum and Instruction, we began to create a new vision of a Master's program for teachers in middle and high schools. We were united in our purpose to have at the heart of the new program an inquiry model built on principles of constructivism. Initially, we sought a program open to each candidate's unique profile of interests, a program so flexible that each candidate could draw on the whole university to design her self-tailored M.A. program to promote her professional growth and the vitality of her classroom teaching. Recognizing the ideal as illusive, we agreed on a set of courses at the core of the program, several concentrations, and a culminating exercise that would epitomize our inquiry aspirations. Although we knew about NBPTS, we did not initially intend to design an M.A. leading to NB certification. Those harmonies emerged later.

The M.A. program is built around a core of required courses. Two of these courses warrant some extensive description because they illustrate several of the aspirations we had for the M.A. program and connections with the NB certification. These two courses are (1) the *Introductory Seminar: Reflections on Teaching* and (2) *Teaching for Thinking*. We designed the first of these courses to pursue the ideal of the reflective teacher in the classroom. One of the central purposes for the course was to have each teacher-candidate in the program carefully explore and analyze his or her classroom. We wanted teachers to look closely at several dimensions of their classrooms:

- The motivational system at work in their classrooms,
- The expectations they had for themselves and for their students,
- Their classroom management system, and
- The impact of their instructional program on student learning.

Looking through these four lenses would provide us with a view of each candidate's classroom practice. We also wanted candidates to look outward for excellence in teaching. After reading and discussing Mike Rose's *Possible Lives* (1995), teacher/candidates were asked to write a portrait of an exceptional teacher engaging students in exceptional learning. We also presented cases to the class that illustrated the issues we were covering, such as the effects of a teacher's motivational system on students, and provided teacher/candidates with opportunities to talk over the problems other teachers faced and how they might begin to understand and solve those teaching problems.

The second course, *Teaching for Thinking*, suggests the kind of thoughtful classrooms we hoped our students would aspire to create. The course had at its heart two primary purposes: (1) the analysis, evaluation, and development of each teacher/candidate's thinking and (2) the growth of each teacher/candidate's capacity to design instruction in his or her content area that engaged students in the development of their own thinking. The course examines alternative conceptions of critical thinking and explores the many ways critical thinking can be expressed and developed. We look at ways more traditional instruction can be enhanced to include deeper representation of knowledge and analysis of course content. We review studies of programs designed to improve students' thinking and identify strategies that teacher/candidates might integrate into their own instructional programs. Long before the M.A. program became influenced by NB standards and procedures, we asked teachers to identify the kinds of thinking they wanted to develop in their students, how they would go about developing those forms of thinking, and how they would measure the degree of their success.

Other courses in the M.A. core prepare teacher/candidates for leadership positions in their schools. These courses focus on the development of curriculum in middle and high schools, issues in educational technology, multiculturalism in urban schools, and research in education. This range of courses in the core covers knowledge domains we consider essential to empower our M.A. candidates for leadership roles they're preparing to assume.

When developing individual M.A. program plans, each candidate also selects a concentration with the consultation of a faculty advisor.

Currently we have seven concentrations that require a set of related courses:

1. Reform in the Middle and Secondary Urban Schools
2. CLAD (Cross-Cultural Language and Academic Development)
3. Content Area Specialization (candidates select courses in a discipline)
4. Integrating Critical and Reflective Thinking Throughout the Curriculum
5. Language Arts/Literacy
6. Mathematics/Science Pedagogy
7. Instructional Technology

This array of choices offers teachers an opportunity to deepen their knowledge in a domain of interest or to venture into new domains that would benefit their classroom practice.

As a culminating activity for the M.A., candidates have three options: comprehensive examination, thesis, or project. Although comprehensive exams for M.A.s are customarily completed in one sitting, we designed comprehensives that fit within our inquiry model and took two quarters to complete. In this model, candidates formulate research questions, engage in teacher research designed to answer the question formulated, and (if all works out) improve instructional programs for their students. Candidates can also form M.A. thesis committees to undertake more traditionally framed research. Originally, projects differed from the M.A. thesis in being directed to less research oriented outcomes, such as the development of an extensive curricular program or the development of innovative educational software. This has changed now that we offer pursuit of NB certification as a project to culminate the M.A. program.

Introducing Pursuit of NB Certification to M.A. Candidates: Academic Year 1999-2000

During the 1999-2000 academic year, we began our preparations to include NB certification as a central feature in the M.A. program. With the support of the Chancellor's Office, the California State University system promoted attention to NB programs of some form on its campuses. Our dean directed his new associate dean of assessment and curriculum to organize a "task force" to address CSU's NB initiative.

With support of C & I faculty and our "Task Force" on NBPTS, we negotiated agreement to offer the NB certification process as a culminating activity in the form of a Project for M.A. candidates in the Middle and Secondary program. During meetings that included two NB certified teachers, we discussed at some length the advantages and possible problems associated with our taking that step. Because we could see only advantages for our students and few problems, we felt ready to proceed. During the early summer, we distributed information sheets and questionnaires to all M.A. candidates about NB certification and the possibility of pursuing it as their culminating activity.

Launching NB Certification Projects: Academic Year 2000-2001

In response to the questionnaire and our talks with M.A. candidates, we were able to form a cohort of three teachers who had advanced to candidacy, who had completed all course work, and who had at least three years of teaching experience. The candidates included a teacher of social studies in a continuation high school who sought Adolescence and Young Adulthood Social Studies certification, a teacher of mathematics in a high school who sought Adolescence and Young Adulthood Mathematics certification, and a teacher of mathematics in a middle school who sought Middle Childhood through Early Adolescence Mathematics certification. The last two teachers were sisters. With the encouragement of their school administrators, the cohort was prepared to pursue NB certification as their Project.

We negotiated the hiring of a NB certified teacher as Adjunct Faculty to meet once a week in a seminar with the first cohort of candidates pursuing NB certification. Myrna Estrada, a NB certified teacher of Chemistry at Garfield High School in the Los Angles Unified School District, agreed to facilitate the seminar with me. She and I met weekly with the cohort throughout the 2000-2001 academic year to guide, read, respond to, edit, and generally support the development of each candidate's NB portfolios and preparation for the NB examinations.

Description of Our Usual Meeting Process

We began our work by reviewing the NB core principles and familiarizing the candidates with those principles, including how their teaching reflected them. Even before the NB "boxes" arrived, we provided copies of the different subject standards for each candidate. As one student wrote, "We read, studied, and pulled apart the standards trying to understand what they meant and how we met those standards in our

classroom." Knowing what work lay before us, we asked candidates to create a time-line (with flexibility built in) that would describe work on their portfolios and when it would be completed.

We soon settled into a productive pattern of reading and responding to candidates' portfolio entries. Before reading for response, we confirmed what candidates were asked to do for each portfolio, the questions they were to answer, and the nature of the reflection they were to provide. Then we read entries and made sure the selected classroom teaching episodes fit well the prompt's direction and requirements. We also talked about problems each candidate faced in trying to find appropriate teaching events to fulfill each NB portfolio prompt.

Candidates faced and solved a number of problems, both technical and pedagogical, related to the video exercises. We presented a video on videotaping and discussed at great length how best to approach taping classes to capture essential elements of instruction. We talked about concerns teachers had with their students being videotaped — not to mention concerns they had about their own performance on videotape.

During several of our early seminar sessions, we talked extensively about current pedagogical concepts that inform instruction. We reviewed constructivist perspectives and principles so that candidates could understand what was going on in the minds of their students and the import of certain NB Standards. We talked about Vygotsky's "zone of proximal development" and connections between that concept and the candidate's analysis of their students' work. We talked at length about individual students in each teacher's classroom, and we tried to understand those students' personal challenges in learning through different pedagogical and psychological lenses.

Having gone through NB certification, Mrs. Estrada provided ample practical, common-sense advice for collecting and organizing student work, for deciding which of many possible instructional episodes would best fit a particular portfolio prompt, and for staying on schedule. When answers to practical questions about how to proceed with NB requirements were elusive, Mrs. Estrada helped us understand what she believed was expected of the candidates and how she interpreted certain standards.

The teaching events and problems our candidates brought to the seminars were living case studies. To prepare for writing entries and/or to extend their development, we encouraged candidates to describe classroom teaching situations in detail so that seminar participants could understand the many factors at play in the classroom. We explored tensions around central teaching challenges and shared perspectives and possible solutions. For example, for some entries, candidates were asked to select specific students who would represent instructional

challenges for them and who revealed through their work the degree to which learning goals had been achieved.

After candidates described the instructional challenges represented by the class as a whole for an entry, we focused in on the problem of selecting a couple of specific students. We talked extensively about the traits these students should manifest, that they should not be the most successful, least problematic students but rather students who presented significant instructional challenges to the candidates and who would reveal the candidates' insight, resourcefulness, and creativity. We encouraged our candidates to look upon problems brought up in the seminar, such as the selection of target students to exemplify learning within a class, as opportunities for all candidates to learn.

What Candidates Learned from the NB Process

Report and Reflections on the NB Process

After completing their portfolios and sending them off for NB evaluation, candidates had to write an M.A. Project Report that had to be approved by all the members of each candidate's Project committee and that would be housed in our university library. The document included four chapters: (1) introduction, (2) methods and procedures, (3) project outcomes, and (4) conclusions, evaluation, and recommendations. The introduction included descriptions of their NB project, the objectives they had, including prompts for each portfolio, criteria used to evaluate entries, and the personal and professional significance of the Project. The methods and procedures section included descriptions of what they did to get ready for NB certification, how they collected and organized their data, and what we did during our weekly meetings. The outcomes chapter included portfolio summaries, what candidates learned about themselves and their students, and changes they made in their teaching as a result of engaging in the NB process. The last chapter included responses to several questions, such as the following:

- What value do you think lies in teachers seeking NB certification?
- What effects do you think the NB process has on your students and their learning?
- What are the implications of the NB process for teacher preparation programs?
- What are the implications of the NB process for MA programs in education for practicing teachers?

• What recommendations do you have for future M.A. candidates seeking NB certification?

Answers to these questions and others like them formed the basis for an extended discussion of the significance and impact of the NB process on our M.A. candidates. In a "focus group," we discussed and probed their answers.

While candidates' answers to these questions could shed light on lessons learned, bias could overshadow accuracy. Candidates might believe that their answers could affect the successful completion of their M.A. programs. However, both focus group discussions and our own close observation of the candidates' work operated as alternative data points serving to triangulate reported findings and temper bias.

In the following sections, I'll describe what we believe the candidates learned through applying the Standards, looking at student work, completing specific entries, videotaping their classroom instruction, and reading and responding to entries in the NB seminar.

Lessons Candidates Learned from Applying the Standards

While initially the candidates did not see how important the NB Standards were, their impact on all the candidates was both deep and broad. The importance of the Standards did not clearly register until candidates were about halfway through the process of completing the portfolios. When candidates became more engaged in writing the entries, they saw how "integral" the Standards were to the process. Their appreciation of the Standards' import deepened over time.

The Standards forced candidates to rethink their curriculum, its coherence, its sequence, and the overall effectiveness of their instructional program. From repeatedly reviewing the Standards, candidates began to "see things differently" in their classrooms and discovered what kinds of things they needed to be doing during classroom instruction. At one time or another, each candidate reported that she needed to alter or at least rethink her curriculum in some ways to reflect the Standard's expectations. Examples of curriculum redesign included less emphasis on passive worksheets and more emphasis on methods to engage students in "mathematical discourse," in reasoning, and in the evaluation of evidence.

In response to language in the Standards, candidates also spoke of their need to do things to "get to know my students better," including more personal interviews, questionnaires, and letters from and to students. Candidates recognized that they needed, first, to encourage their students to express different points of view so they could know their

students better and, second, to cultivate in their students an attitude of appreciation for different points of view expressed in the classroom. These measures and others like them would, candidates believed, provide them with more opportunities to get to know more of their students' thinking processes, to sensitize themselves to their students' reasoning and problem solving processes. As an example, one candidate mentioned that one of her math students was unable to write out a math equation in ordinary English. His difficulties puzzled her, but when she began to diagnose the problem, she discovered that the boy's standardized test scores showed a remarkable weakness in writing. With that knowledge, she could invent and apply more appropriate instructional stepping stones towards mastery of the skills she expected him to demonstrate.

The Standards also heightened candidates' concerns and attention to assessment, student work, and the analysis of student work. They realized they needed a "wider net" of assessment instruments than the testing program they had in place. However, as teachers in a state using "high stakes" standardized testing to rank students, schools, and districts, these candidates felt some tension between the expectations raised by the NB standards and the Stanford 9 tests used annually to evaluate students and to index their school's academic performance. In spite of concerns about this tension, candidates gave much more attention to collecting, organizing, and analyzing student work, including the development of portfolios to keep track of students' development. They also learned more about what features to look for in their students' work that would inform subsequent instructional moves. However, the Standards engendered concerns about determining if or when their students achieved learning goals and how they could "truly know" that a learning goal had been attained.

Although the Standards did not appear to raise significant concerns among the candidates about their level of mastery of content knowledge in their subject areas, these candidates did have concerns about how to integrate their content knowledge with effective pedagogy. Over and over, they asked themselves, "How do I most effectively teach what I know?"

In several ways, the Standards provided candidates with an explicit direction for their teaching which, by implication, they may have felt was lacking in some way. The NB Standards clarified for them "what excellence in teaching looks like." They also clarified what good teachers should expect of themselves and of their students.

In addition to these Standard effects, candidates gained a heightened awareness of the importance of teachers in the larger school and academic community. The candidates' work on both portfolio 5, which focused on collaboration in the professional community, and portfolio 6, which cov-

ered outreach to families and the school community, impressed upon them the significance of their work beyond the classroom door. NB certified teachers don't simply close their classroom doors and teach their students. The Standards expressed expectations of extensive engagement beyond classroom teaching, a message these candidates clearly heard.

All these lessons candidates learned from the Standards led not only to immediate actions in the classroom and community but also to future planning for change. Among the actions that candidates attributed to the Standard's influence were their readiness to keep reflective journals, beginning with their next academic year, and their joining of professional organizations so they could continually refresh their instructional knowledge and keep in touch with issues of concern to their professional colleagues nationwide.

Lessons Learned About Teaching from Looking at Student Work

Candidates reported that looking closely at student work opened their eyes to the learning patterns and problems of individual students. "Often times," wrote one candidate, "we know which student is struggling, but we aren't forced to examine in detail how the student is thinking. For this project, I had the opportunity to analyze how the students were solving the problems." As candidates analyzed their students' work independently, shared their findings with the seminar, and discussed individual samples of student work, insights arose that enabled candidates to discover aspects of their students' thinking they could not have noticed otherwise. Another candidate wrote that from looking at her students' work she discovered that she needed "to think like my students so that I could know why they were making the mistakes and how I could teach my students from their misconceptions." Through the examination of student work, the invisible became visible. With that newly acquired vision, candidates could make better decisions about their next instructional steps and even about the structure of their courses for the following year.

Following the discovery that looking closely at student work provided opportunities to focus on and figure out how individual students learn, candidates realized the promise of examining each student's work in a similar light. Candidates recognized that some students had profound problems learning in certain modes, such as one candidates' discovery that a student with spatial orientation problems who failed geography couldn't find her way to the bathroom at school. Writing about her revelations through looking at student work, another candidate wrote, "I would like to participate in this activity with all of my students. I hope to be able to find out how each of my students learns by the end

of this year. This way I would be able to present the lesson to adapt to the students' modality." Establishing a practice based more firmly on looking at student work could avoid the more customary instructional pattern of giving a test, grading it, and returning the graded test to students with little if any scrutiny.

Although looking at student work helped to make candidates more acutely perceptive of their students' learning processes, candidates expressed consternation over the realization that they usually have students for only one year. In that time, they could become quite familiar with their students' learning styles and problems, but then those students would go on to other teachers. However, one candidate expressed the hopeful view that the knowledge and sensitivity she gained about students through the examination of their work could transfer to new students more quickly in future years. Other candidates agreed that they would be quicker to "pick up on" students' learning patterns and problems so that they could adapt instruction more effectively in the future.

Lessons Learned from Specific Entries

We asked candidates to explain the kinds of impact that entries had on them. We were particularly interested in entries that had the most immediate impact, the most pervasive or broad impact, and the most long-term impact. As for most immediate effects, candidates referred to their entries documenting outreach to families and the wider school community. One candidate explained that contact with parents was not a "high priority" in her school, for her students, or for her. In fact, parents of students in her classes would rather not hear from teachers at all because, with students in a continuation high school, most of the news from school is bad news. However, that entry addressing contact with parents required her to rethink her entire approach to parental communication. Other candidates indicated they, too, had to rethink their communication with parents in the community.

As for most pervasive impact, candidates referred to those entries that called for showing students engaged in thinking or showing evidence of the effects of engagement in thoughtful conversations, such as mathematical discourse. Getting students to think deeply within a discipline was an instructional challenge that approached the impossible for these candidates. "They don't want to think," one candidate said. Candidates faced daunting difficulties as they tried to create structures that allowed students to think. At points, they wanted to blame the administrative forces in their schools for having little tolerance for the "hubbub" of thought. However, one math candidate used cooperative learning to demonstrate students' critical thinking. She selected a set of

inequality problems that students solved incorrectly as part of their homework and claimed they were the work on one "Matthew Math." In teams, students had to figure out where Matthew Math began solving problems incorrectly and explain in writing what he should have done to solve them correctly. While this lesson shows that candidates could structure their classrooms for productive analytical thinking, not all candidates were equally successful in finding structures that engaged students in thoughtful dialogue. We reminded our candidates that lessons of these kinds often take time for teachers to invent and implement as they build a knowledge base for their professional work.

As for long-term impact, candidates pointed to their video entries, especially that video engaging them in whole class discussion. While not every candidate found these entries to have the most long-term impact, all candidates certainly learned substantially from them. Twenty minutes of non-stop conversation with students during which candidates had to engage their students in understanding an important concept, in either math or social studies, was their challenge of challenges. One candidate explained that she had to repeatedly experience all the things she saw that she had done wrong. "I became frustrated because I could see all the things I could and should have done to facilitate a better discussion, but it was too late." This candidate, as well as the others, saw that students need to discuss ideas, hear how others conceptualize problems, and how they approach their solution. Whole class discussions became tied to building learning communities and to the significance of the democratic process.

Lessons Learned from Videotaping Classroom Instruction

We tried to prepare students for videotaping sessions by providing general guidelines, even beyond those provided in materials candidates received from the National Board. We showed and discussed a videotape that the NB produced. While the tape addressed several questions candidates had, it left many unanswered. Candidates claimed that they got nothing "helpful" from it and that examples on the tape showed teachers using video equipment more sophisticated than the resources our candidates had. Even the equipment they could borrow from their school or district was not always available because other teachers had requested it. Moreover, the central problem our candidates had was shifting between using one, fixed camera placement to finding a responsible, reliable, and responsive cameraperson who could move throughout the room and record from many points of view. Candidates needed a demonstration video showing them how to use basic equipment without access to any of the fancy recording and videotaping gadgets included in the demonstration video. Nevertheless, through discussion along with

trial and error, candidates did learn to place cameras properly to show their students' faces, or they found a reasonably good assistant to hand-hold a camera for taping instructional episodes.

Candidates discovered the value of our watching and reviewing their videos in the seminar. Without that review, some candidates may have thought to themselves, "Oh, this turned out fine," but, when writing about the video, they would have found that the videos didn't work. Some videos did not work because the prompts and questions in an entry were not addressed through a video's content. A video should show students achieving some learning goal if an entry asked, "How were learning goals achieved?" However, some videos that were to show the pursuit and achievement of a learning goal did not. Writing about an achievement without any evidence for it on the video presented a serious dilemma. As one candidate said of her attempts, "Well, at least I got a video." In another example, a prompt asked a candidate to demonstrate how she worked with groups. However, the initial video showed her lecturing to her students and then walking among them as they solved problems using their calculators.

Videotaping also presented psychological dilemmas for some candidates. "Sometimes I just didn't want to see what I was missing in my classroom. . . . It was too personal. I had to have more distance. I wanted a disconnect from the video." While we could see that some uncomfortable lessons may have been learned from these "too personal" viewings, we were limited in the ways we could work beyond these resistances and discomforts in the context of the seminar. We tried to provide support and encouragement, but with limited time we sometimes had to move on. However, we did discover that candidates might have benefited from earlier opportunities to make and review videos during M.A. courses, a discovery that resulted in a program modification.

Lessons Learned from Reading and Responding to Entries in the NB Seminar

All of the candidates recognized that reading their entries aloud in the Seminar while other participants followed in their copies helped them to clarify their thinking. Although time consuming, the process of reading and discussing entries clarified for candidates the degree to which they had solidly aligned evidence with the Standards and entry prompts. At times, candidates got off target, misinterpreted a prompt, or provided evidence for something that was not explicitly requested. For example, participants in the Seminar pointed to instances of candidates leaving out of their entries explicit language describing their "learning goal" and their "instructional challenges" when these were clearly requested in an entry's prompt.

Each week we tended to emphasize the work of a particular candidate. After a preview of an entry's prompt and during the review of what a candidate had written, we discussed that entry's content and structure, down to the paragraph, sentence, and individual word choice. As one candidate said, "Reading aloud helped me pick up what was wrong with my writing and mechanics." This candidate said she sensed when something was wrong in an entry, but she wasn't sure how to "make it work." We suggested ways to restructure or replace language that helped candidates move toward greater clarity. After working on a particular entry, a group member usually acknowledged the need for more work on phraseology or confirmed that, with our feedback, she gained a better fit between what she wanted to say and what her language stated. As one candidate explained, the discussion of written entries "helped me figure out what I wanted to say or how I could say it better."

Candidates appreciated working in a team rather than meeting alone with a facilitator. As one candidate put it, "If I'm alone with a facilitator, everything that's wrong is mine alone. But, in a group, I think to myself: 'I know this is bad and I don't want to read this now. I'm not ready to fix it, but I know how — eventually.'" However, when we talked in the seminar about a single, problematic teaching event in one teacher's classroom, that frequently made the teacher move more deeply into an analysis of what was going on.

For example, we watched a video in which students were clearly constructing knowledge through their collaboration. We stopped the tape and asked everyone to look more closely at the nature of the students' social interactions. Some candidates hadn't noticed some of the moves that students made to help each other, such as clarifying the meaning of a math term relevant to their work. The event gave us a vivid opportunity to revisit Vygotsky's "zone of proximal development" and show how it could work in small student groups as well as in teacher-student interactions. And, because all candidates were not specialists in any one field, each candidate had to be ready to explain to non-specialists what was going on in their work with students. This was, on occasion, especially productive for math teachers who had to explain in ordinary English the learning goals they set for students and why some students were having difficult attaining those goals. Furthermore, discussing the content of an entry in a group would often stimulate candidates' memories of activities in school and in the community that could contribute to their entries, especially those addressing collaboration in the professional community and work with families and the community.

Looking back at these lessons that candidates acquired, we suspected all of our candidates would agree with hundreds of California NB

certified teachers (*In the Teacher's Voice*, 2000) who said that participating in the NB process made them "better teachers," heightened their efforts to involve parents and community resources in their teaching, and helped them develop stronger curricula and improved methods of analyzing student performance. However, from these candidates' words we can also see the struggle through which they went to discover and articulate their unique classroom practices.

What University Faculty Learned

Several months after all candidates submitted their portfolios and took their assessment center examinations, we learned that none of the candidates achieved certification. Although they were disappointed, they reported that the results did not alter any of the observations they had made about the impact of the NB process or the value they placed upon its influence on their teaching. After catching their breath, they all intended to bank on their successes and pursue resubmission of portfolio entries and center re-assessment in domains where their scores allowed re-evaluation. While disappointed, they had earned their M.A. degrees because confirming the degree was never dependent on NB certification. We knew these candidates had engaged in significant growth.

We, too, were disappointed. However, we reaffirmed our commitment to helping the candidates further pursue NB certification and to examining lessons we had learned from facilitating the process.

What follows is a description of and commentary on ten lessons we learned from participation in our M.A. candidates' journeys. This isn't an exhaustive list nor is it organized by order of importance. It's culled from the pool of lessons thought most germane to readers with interests in taking a path like ours or learning from our discoveries before embarking on a similar but unique NB undertaking.

(1) The timelines we set up at the beginning of the candidates' work provided them with goals in the form of target dates for completion of an entry and a means of structuring time to meet those goals. Candidates said they found the timelines valuable. However, each candidate had to "reset" her timeline when reality forced her to rethink time's best use. At the end of each seminar session, we conferred with each candidate to "reset" our schedule for the following week so that she and we would know what to expect for the next meeting. At times, we looked farther out to set sensible objectives for the completion of portfolios and the project report.

(2) In response to candidates' rather late discovery of the importance of the NB Standards, we could make increased efforts to emphasize early

on how important they are to candidates' successful certification. There are several ways in which we might do that, including asking candidates to look more closely at how these Standards apply to each candidate's own classroom practice. Recognizing the likelihood of candidates' overlooking their significance, we can work on making early connections with the Standards that will underscore the attention that must be paid to these central, guiding principles.

(3) Through the NB process, we discovered that, while some aspects of the M.A. program were beneficial to NB candidates, other aspects needed further development and refinement. With respect to features of the M.A. program that appeared to prepare candidates for NB pursuit, several specific episodes in our NB journey demonstrated "goodness of fit" between NB certification candidates and current program components. Without doubt, some courses are providing candidates with access to the kinds of knowledge and experience that will (or should) enable them to respond well to NB prompts.

An entry that the Social Studies teacher/candidate had to develop provides an example of a productive connection between the current M.A. program and the NB process. Her first portfolio entry focused on teaching reasoning through writing. As she wrote in her M.A. *Project Report*, "I had to use three writing assignments revolving around an important social studies/history theme or topic that were persuasive, analytical, or interpretive in nature and provided students the opportunity to advance and support reasoning with evidence." She had to choose two students who presented her with different kinds of instructional challenges related to the first portfolio's prompt.

In what ways had the M.A. program prepared this NB candidate for such an assignment? One of the M.A.'s core courses, "Teaching for Thinking," provides teachers with tools to promote critical thinking through reading, discussion, and writing. One of the texts for the course, *Thoughtful Teachers, Thoughtful Learners: A Guide for Helping Adolescents Think Critically* (Unrau, 1997), focused on using writing to develop students' reasoning and use of evidence to sustain written arguments. When the candidate was faced with this first portfolio assignment, she broke out her course notes and the course text for review.

In her *Project Report*, the candidate explained that this portfolio on teaching reasoning through writing "opened my eyes to the lack of formal writing assignments in my classroom." What her observations told me was that, while our M.A. program includes instruction about integrating critical thinking through writing into subject domains, the transfer of that instruction into classrooms may be limited or simply not occur. In

this candidate's case, her students present "multiple problems when writing formally." In fact, she explained that her students were not comfortable with *any* form of writing. "They cannot spell. They have trouble reading. Many have learned English as a second language, and all of my students have failed English at least twice during high school." One way to address the instructional problem that candidates like this bring to "Teaching for Thinking" would be to ask the class what specific challenges they face when they ask their students to write formally or persuasively about topics in their courses. That way we could at least anticipate transfer problems in advance and begin to design bridges that could effectively carry the load of argumentative writing into classrooms where students struggle with writing.

(4) We never envisioned the M.A. in Middle and Secondary Curriculum and Instruction as solely a vehicle for experienced teachers to pursue NB certification. It was initially designed to support candidates who had multiple and varied purposes. Some candidates prefer to undertake a thesis that allows them to formulate research questions they want to answer. Some candidates prefer to complete our two-quarter comprehensive examination that engages them in some form of extended "action" or teacher research. And some will elect to pursue NB certification as a project. Although some modifications to our program make sense at this time, we would be driving toward a goal quite different from our original intention if we were to overhaul the M.A. program with only NB certification in mind.

However, there are some changes we could implement that would provide further preparation and support for those candidates seeking NB certification. Among these modifications would be more focused emphasis on student work and the development of skills to analyze it for the purpose of making informed instructional decisions. We have already begun to do that in both the introductory seminar "Reflections on Teaching" and in "Teaching for Thinking." For example, in the latter course, candidates now must complete assignments that include samples of student work they analyze to show how individual students in their classes have shown movement toward achieving specific goals in critical thinking or problem solving processes. Candidates are asked to describe the lesson that generated the work, why they gave the assignment, how the work demonstrates the kinds of thinking they wanted their students to engage in, a discussion of the degree to which students succeeded in achieving those learning goals, and what next instructional steps they would take to move closer yet to those goals. Candidates are also encouraged to write a reflection on what they have learned about

themselves and their students from the examination of their students' work. As one candidate for NB certification wrote in her Project Report, "In my teacher preparation program, I never looked at any student work until my student teaching. I had no clue about how to analyze student work. This is invaluable to a teacher, whether or not they seek NB certification. Understanding student work and identifying misconceptions in their work is integral to helping students learn."

(5) For NB candidates, writing is the primary vehicle to get them to their destination, and a focus on the writing process typifies NB support programs (Pershey, 2001). We acknowledged that three forms of writing are essential for each portfolio: descriptive, analytical, and reflective. As Mrs. Estrada wrote in her reflection on our endeavor, "writing is very critical" for the success of each portfolio.

> The portfolio is about putting your practice down on paper by describing your class, describing your students, describing your goals and lessons. It is also about analyzing your students' work, analyzing how you got your students to this point, analyzing how you can get them to the goals you set for them. So in essence if you have a problem putting your thoughts on paper, by writing, you will not be as successful with your portfolio.

We confirmed what we had heard from others pursuing or facilitating NB certification: writing is pivotal.

In spite of there being ample writing assignments within the M.A. program, some candidates manifested significant composition problems, including difficulties in organizing information, recurring grammatical errors, and problems with mechanics. Many entries went through multiple drafts before they began to gain sufficient precision, clarity, and cohesion. Going through one candidate's entry for problems in focus, structure, and mechanics in our seminars helped other candidates pick up on chronic problems in paragraph or sentence structure. As we worked together, candidates discovered the importance of increased precision in their thinking and writing. After a few weeks, fewer paragraphs appeared without a topic sentence to guide its development and contribute to its coherence. Candidates also noted that we "insisted on keeping in proper and consistent tense and not flipping around from present to past and back to present." As self-corrections occurred more often, entries read more smoothly.

We are currently striving to identify and implement solutions for writing problems that impede some of our graduate students. We have a writing center on campus and have worked toward implementing a university-wide writing assessment program to evaluate and support

student writing at the undergraduate level. Because writing skills are not likely to mature while students are attempting NB certification, we believe more extensive and focused evaluation and support of writing during the earliest phases of the M.A. program could benefit all M.A. candidates.

(6) While we were running our NB seminar throughout the year, a committee of Single Subject credential program colleagues was revising our "Demonstration of Competencies" evaluation form for student teaching. Our work with the NB core propositions, standards, and candidates frequently cast its light on our discussion and redrafting of that document. For example, one section of the evaluation form targets teachers' reflection on lesson design, implementation, and students' responses. In the former evaluation form, analysis of student work was not even mentioned. However, the new form states that if candidates are to receive credit in this area of reflective practice they will need to interact with student work productively. The new criteria for credible performance states that the "Candidate shows adequate capacity to assess and reflect on students' work and learning after implementing lessons and reviews alternative methods and plans where appropriate. Actual planning reveals awareness of students' engagement and learning in prior lessons."

Because we have built this expectation into our evaluation, we also plan to focus more attention on student work, its analysis, and instructional response to it in our Single Subject credential courses, including basic and advanced methods classes. We have already done so in our content literacy course required of all Single Subject candidates and in our English/Language Arts Methods class required of candidates seeking a credential in the teaching of English. We will encourage closer examination in other methods courses, including those in social studies, mathematics, and the sciences.

The new form also states that credential candidates are expected to demonstrate professional work habits that reveal "evidence of refining practice through self-reflection and self-examination, including participation in reflective practices, such as maintaining a professional journal." Furthermore, we have emphasized the importance of school and community responsiveness by including among our criteria for acceptable performance demonstration that the credential candidate "understands the importance of parents' role in supporting student learning" and "regularly communicates with parents about student performance."

We also encourage candidates to demonstrate collaboration with school-site colleagues and service to the school that goes beyond basic classroom instruction. All of these modifications or amplifications to the

new Single Subject evaluation form reveal the influence of NB principles and objectives. They may also begin to prepare more of our credential candidates for pursuit of NB certification.

(7) Another modification to the M.A. program that we made to highlight the teaching of all candidates while providing practice to those who might pursue NB certification is the inclusion of more videotaping experience. One of our core courses, "Reflections of Teaching," now includes a required videotaping of a 15 to 20 minute unedited instructional event to demonstrate M.A. candidates' work with a whole class or with small groups. Candidates show the video in the introductory seminar and provide a written explanation of their learning goals, why they had them, how or to what degree they think the video shows their having been attained, and what in the lesson might have been modified to enable closer approximation of the learning goals they set for their students. After viewing and discussing the videos in class, we give students an evaluation rubric that echoes the NB rubric to score the video. Exercises like this prepare candidates for more formal NB submissions when and if they pursue NB certification. They may also alert us to the psychological difficulties some candidates encounter when watching themselves teach and provide them with opportunities to gain some distance to observe and reflect upon their teaching.

Although we had to throw our candidates to their own resources when video equipment problems arose, we can do better. We need to develop both sensible guidelines for videotaping classroom instruction and technical resources, including adequate video equipment and microphones, to facilitate classroom taping. Although some colleges of education have video equipment available for loaning to students, we have just begun to purchase equipment that candidates could use in their classrooms. With the help of our technology staff, we can further improve video support to candidates.

(8) Each of our candidates struggled with some domain of content knowledge while completing exercises at the assessment center. Even though candidates did not manifest concerns about content knowledge while developing portfolios, we later discovered gaps that could have been addressed. For example, domains of knowledge, like geometry which candidates for certification had not taught or recently reviewed, presented clear challenges. Because demonstration of content knowledge as well as pedagogical knowledge are of critical importance to both daily teaching and to assessment center exercises, we now encourage NB candidates to review content knowledge that may be assessed at the center. Some candidates might be sensibly counseled to select content

area specialization as their M.A. concentration so they could deepen command of their discipline's knowledge base and of related disciplines.

(9) Although few students in our M.A. program are "rookies," few are seasoned teachers. Many are in the early phase of their professional development and focused on mastering content and pedagogical knowledge relevant to their teaching assignments. Only a few have begun to take on committee work that affects their school's culture or curriculum, their school's outside community, or professional organizations. We would do well to encourage more of our M.A. candidates to collaborate with colleagues in school curriculum and governance matters, to reach out to parents in their school's community, and to participate actively in organizations dedicated to their professional development. For M.A. candidates considering the pursuit of NB certification, these activities are crucial and could be encouraged in core courses that cover curriculum development, school reform, and the cultural life of schools.

(10) Perennially, university faculty reviews retention, tenure, and promotion procedures and finds solid grounds for criticism. Frequently assailed, for example, are the validity and reliability of student evaluations as indicators of instructional quality. Once NB certification validity and reliability issues have been put to rest, perhaps while they are being settled, that model could be adapted for pilot study in the California State University system to assess quality of undergraduate and graduate instruction. Tenured faculty who serve on RTP committees could be trained for a "blind" peer review of portfolios submitted as part of the RTP package, which would continue to include other performance dimensions, such as research and publications, curriculum innovation, service to professional organizations, and committee work. The early research question might be the following: Is there a university community ready to explore an innovative and potentially more rigorous method of faculty assessment modeled upon the NB certification process?

Returning to the three questions initially asked about the quality of M.A. education programs, we now have some answers, though limited, about our own M.A. program. We have not gathered enough evidence about the effects of our candidates on their students' learning to make any claims related to our M.A.'s impact on student learning. Our small sample does suggest that pursuit of NB certification contributed to our candidates' growth as reflective practitioners. Although they did not certify, they did develop skills to examine their students' work, learned from it, and modified their teaching as a result. To claim that our candidates became more engaged in work with their school and professional communities as a result of being in the M.A. program and pursuing

NB certification would seem justified. These teachers learned much about their school and certainly about the standards that drive the assessment of teachers pursuing NB certification.

In this paper I've articulated and analyzed the lessons learned by the candidates and university faculty as we all proceeded through the NB process to culminate the candidates' M.A. programs. While some of these lessons have been learned by nearly all those who have participated in the NB process, other lessons are uniquely ours. We still have much to learn about supporting candidates through M.A. programs. We still have much to learn about how the NB model could shape our teacher credential programs. And we have much to learn about how that NB model could shape the instructional programs and assessment of university faculty, especially those who participate in educating teachers for service in our schools.

Epilogue

For the 2001-2002 National Board cycle, both of our MA candidates who elected to pursue certification did certify in English. Both Myrna Estrada and I were delighted with their success. Although both candidates came to National Board challenges with a few more years of teaching than our pervious group of 2000-2001 National Board candidates, we also had the opportunity to apply some of the lessons we had learned about facilitating National Board candidates from the earlier cycle. We focused more intently on the standards as they applied to our candidates' teaching episodes. We pushed for deeper observations and analysis of their students' performance. We urged extensive reflection on the implications of the candidates' instructional discoveries. Were we able to guide them toward more productive analysis of their work? Maybe. Did their interaction with each other move them further? Possibly. Were these candidates simply more seasoned teachers ready to reveal their talents? Perhaps. Although we could not draw conclusions from our small sample, we sensed a better fit between the standards' expectations and their entries.

During the 2002-2003 academic year, we have had five MA candidates pursing certification in science, social studies, English, and music. As these teachers look more closely at their students' work and the standards used to evaluate their teaching, we often see moments of delight when their classroom practice is reflected in the standard's language and moments of despair when they discover they have farther to go before they reach their destination.

Reflecting on the National Board process mid-way through, one of our current MA candidates pursuing certification wrote, "My teaching has greatly improved as a result of the National Board process. I feel revitalized in my work rather than burned out. I am more focused on what I want my students to achieve via the National Board standards, the state content standards, and my own critical thinking goals. After every lesson, I am asking myself how I could have improved upon my teaching, and constantly readjust my plans to meet the needs of my students rather than the demands of the calendar. I have always done my best, but now I am pushing myself to exceed my own expectations, and my students are benefiting from my improved teaching."

If our goal for the MA in Education is to build the capacity of teachers to promote student learning, could we ask for a much better process and result?

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