Grandchildren

Personally, this is an important time in my grandchildren’s educational lives. My oldest grandson enters high school this fall. Two other grandchildren enter kindergarten and preschool. My youngest grandchild began to crawl last week. Four years ago MASCD joined a coalition to improve instruction in every classroom throughout the state by improving educator quality. If the legislation we propose for improving educator quality had passed, children like my grandchildren would be benefiting from the improvements in schools now. For some reason we haven’t been able to convey the urgency of our plea.

- A professional knowledge base exists for education.
- We must ensure that all ten personnel processes that determine educator quality, including teacher preparation, are rooted in the professional knowledge base.
- The promise of excellent classrooms lies in significantly improving the quality of teachers and administrators.
- The promise lies in what teachers do instructionally, by design, each day to educate “whole” children.
- Together we can transform our classrooms, schools and communities so they all are significant learning environments for our children and grandchildren.

The National Governors’ Association reported that for every 100 students entering 9th grade, 82 will not complete a bachelor’s degree within six years or an associate’s Degree within three years. Which of our children and grandchildren will they be? What will society be like with a citizenship that lacks the intellectual stamina to write our literature, paint our masterpieces, compose our symphonies, and invent creative solutions to our pressing environmental and human problems? The list of opportunities and challenges is endless; we need to develop the talent of every child to his/her highest potential for a better future.

Can we envision?

Can we envision schools where all teachers teach our students through powerful learning experiences ~ all of the time? Can we envision a state that defines proficiency in terms of students creating, innovating, collaborating, thinking critically, solving problems, leading, and being personally and socially responsible?

Currently we have some classrooms and schools where teachers design
instruction so students develop these new proficiencies. Teachers who impress their communities with their ability to teach in powerful ways are sometimes selected as Teacher of the Year and we feature their accomplishments as models for other teachers to emulate. There are many teachers who deserve to be so recognized. Parents want to ensure that their children get those teachers. Often parents are willing to spend lots of influence to get the best teacher for their sons and daughters. They advocate in whatever way they can within the system.

If the system does not respond to their influence, some parents are willing to spend their money to ensure their children have those experiences. They move into communities that have a reputation for “good” schools. When parents conclude that only a private school can offer their child those experiences, they work hard to ensure that their children are accepted to those schools. However, what happens to the students whose parents do not have influence or the money to secure powerful learning experiences for their children? Does that condition explain why 82 out of 100 high school freshmen never receive a college degree?

**Wisdom in Anaheim**

At the ASCD International Conference in March 2007, Ben Donenberg, Shakespeare Festival LA Producing Artistic Director, interviewed young people from South Central Los Angeles to find out what they needed from him. “What they need is to feel that we adults in power value them highly enough that we are willing to invest our wisdom in their potential.” Mr. Donenberg and others invested in the youth of South Central LA through an innovative Shakespeare performance program, Will Power to Youth. I bear witness to the outstanding quality of their collective achievement. At the conference second general session on Sunday, March 19, 2007, thousands of educators were moved to tears by the quality of the performance. Well done, student leaders from Will Power to Youth and Mr. Donenberg for Shakespeare Festival LA!

Stephanie Pace Marshall, at the same conference, offered us a glimpse of her wisdom, when she spoke of the need to transform schools and learning so students experience a different story of learning, the under story that our actions teach students as young as third grade, if not younger. Here are four of eight characteristics of the “new story of learning” that Ms. Marshall believes students must hear over and over again throughout their sixteen or seventeen years of schooling if they are to believe this story of truths and act in harmony with it.

- Intelligence is not a single number. It is not fixed at your birth. . . . Creating your own mind is the greatest gift you can give yourself and the world.
- Learning is a social activity. . . . You will learn more deeply and you will have more fun if you learn with others. Learning flourishes in relationships.
- Understanding big ideas, pursuing questions that matter to you and your community and the world and solving meaningful problems are what real learning is about.
- You are a unique learner. . . . Make mistakes, take risks, explore, fail, and ask for help. They are all part of learning. . . . You have a unique song that no one else in the world can ever sing, and if you don’t sing it, it will never be heard. . . .

Mr. Donenberg and Ms. Marshall (Read _The Power to Transform_) offer much more than I can capture here. Their insights provide a new framework for teacher preparation programs that will graduate teachers who will be ready to transform schools and learning. We can have a significant positive effect on the lives of all children if we can prepare teachers and administrators to ensure challenging and engaging experiences for them and find ways in our communities to keep children safe, healthy, and supported as ASCD and MASCD advocate in our Whole Child Initiative, www.wholechildeducation.org.
Whole Child Initiative

Above I mentioned the need for teachers to learn how to design their instruction to educate “whole” children. We need our system of educator preparation to ensure that new teachers, and administrators, understand and can demonstrate how to create those types of classrooms and schools. Stephanie Pace Marshall also said in Anaheim that students are born whole and that “. . . both our experience and our research support the belief that all students will achieve at significantly higher levels of disciplinary and interdisciplinary understanding . . . if learning experiences are intentionally designed to enable them to do so.” 5 If “a whole child is intellectually active; physically, verbally, socially, and academically competent; empathetic, kind, caring, and fair; creative and curious; disciplined, self-directed, and goal oriented; free; a critical thinker; confident; cared for and valued,” 6 then teachers must be taught how to design all classroom and school activities so children learn in ways that allow them to remain whole.

Readiness Project

This issue of Perspectives comes at a pivotal time in Massachusetts educational history. Governor Deval Patrick has launched his Readiness Project with these words: “Heralding the Commonwealth’s moral and statutory obligation to assure every child access to a world class education to reach his or her full potential, Governor Deval Patrick today named the council that will develop a 10-year strategic plan to develop priorities for the state’s ten year educational strategic plan.” If you were not an educator in the early 1990s when the education reform legislation was formulated and implemented, now is the time to be attentive to the Readiness Project progress so you can influence its outcome with your voice. MASCD will represent you well, but the Governor and your State Representatives and Senators must hear from you. We need you to be an Educator Advocate. 8 Education in Massachusetts will be influenced for the next fifteen years by this strategic plan.

References
1. See Perspectives, Spring 2007.
3. Founding President of the Illinois Mathematics and Science Academy ‘The Illinois Mathematics and Science Academy’ (IMSA) is an internationally-recognized pioneering educational institution created in 1985 by the State of Illinois to develop talent and leadership in mathematics, science and technology teaching and learning. Stephanie Pace Marshall is also the author of The Power to Transform, an insightful new book on the new story of learning that students need to hear throughout their sixteen years in our schools.
8. Go to www.mascd.org and click on “Become an Educator Advocate.”

MASCD promotes the Whole Child Education Compact

- Each student enters school healthy and learns about and practices a healthy lifestyle.
- Each student learns in an intellectually challenging environment that is physically and emotionally safe for students and adults.
- Each student is actively engaged in learning and is connected to the school and broader community.
- Each student has access to personalized learning and is supported by qualified, caring adults.
- Each graduate is challenged by a well-balanced curriculum and is prepared for success in college or further study and for employment in a global environment.

If you would like to host or lead a community conversation on the education of the whole child in your school or district, please contact mfbayes@mascd.org and visit www.wholechildeducation.org for a host of resources.
Congratulations to 2007 MASCD Mentor Award Recipients

By Susan Villani, MASCD Mentor Award Committee Chair

MASCD is delighted to announce the three recipients of the MASCD Mentor Award for 2007. They are: Pamela Eaton, from Burlington High School; Catherine Giles, from the Barrow Elementary School in Reading; and Michelle Reardon, from Tri-County Regional Vocational Technical High School (RVTHS).

These mentors were selected based on their work with their new-teacher partners in the following ways: effective communication; the nature and frequency of their meetings; the way they work with diverse student populations; how they model effective teaching practices and structure opportunities to observe in each other’s classrooms; how the mentor coaches the new teacher on specific topics throughout the year, and how the mentor promotes reflection and self-assessment.

These mentors are master educators who have made a commitment to supporting teachers new to the profession and new to their schools. Here are excerpts from their nomination:

Pamela Eaton from Burlington High School receives her MASCD Mentor Award. l-r: Katie Spinos, late Superintendent, Pamela Eaton, Elizabeth Murray, Mentor Program Leader and K-8 ELA Chair

Bette Murray, Mentor Program Leader in the Burlington Schools, wrote about Pamela Eaton:

“Pam has mentored a number of teachers. In her formal mentoring role, she exemplified the “best practices” for a mentor who guides new teachers to becoming both effective and reflective in the teaching profession. Pam has guided her protégés through IEP writing and the adjustments to an inclusive classroom setting. She has helped the new teachers to understand the multiple curricula that their students navigate while modeling co-teaching, co-planning, collaboration, collegiality, good humor, and patience.”

Karen Callan, Principal of the Barrow Elementary School in Reading, wrote about Catherine Giles:

“Over the past five years, each year Cathy has been a mentor to at least one teacher at the Barrow Elementary School. She embraces this assignment by touching base daily, setting up formal meetings to discuss classroom planning, teaching strategies, and overall school concerns. She works continually with her protégés to share effective instructional practice and sound educational pedagogy. Her positive and vivacious attitude toward education and teaching has given these teachers a role model who is sincere and heartfelt.”

Karen Callan, Principal of the Barrow Elementary School in Reading, presents MASCD Mentor Award to Catherine Giles.
Mark Wood, principal of the Tri-County Regional Voc Tech High School in Franklin, wrote about Michelle Reardon:

“Michelle has been the team leader for the new teacher program, leading discussions on topics including lesson plans, classroom management, school climate, peer mediation, school culture, and Skills USA. Her responsibilities entail giving support on many levels including professional, personal, and instructional as well as being a liaison for all new teachers. In her capacity as a mentoring coordinator, Michelle has been responsible for the training and oversight of 20 mentors.”

MASCD has presented plaques to all of these mentors and given them books published by MASCD, one-year memberships, and full-day MASCD professional development sessions for them and their mentees. With great respect, admiration, and enthusiasm, MASCD congratulates these superior educators and their districts.

MASCD welcomes nominations for the Mentor Award each spring, as is outlined at www.mascd.org.

Susan Villani congratulates Michelle Reardon from Tri-County Regional Voc Tech High School on receiving the MASCD Mentor Award.

New School Leaders Complete MASCD Licensure Program

Mary Forte Hayes
Executive Director, MASCD

The next generation of school leaders has had a solid grounding in instructional leadership in the MSSAA-Teachers21-MASC Leadership Licensure Program (LLP). Since 2003, over 170 educators have met the requirements for licensure as principals/assistant principals or supervisors/directors. Now there is also a program for superintendents, the LLPS. In this highly competitive program, students spend two weeks in the summer and one weekend a month learning about and immersed in effective instructional and organizational leadership. Jack Aherne, Shelley Chamberlain, John D’Auria, Manuel Fernandez, Patti Grenier, Ann Kousman, Matt King, Peg Mongiello, Audrey Seyffert, George Johnson, Dorsey Yearley and Jim Walsh — Teachers21 instructors with years of experience as successful leaders — provide inspiration and a practical approach to school culture, inclusion and equity, curriculum leadership, supervision and evaluation, data analysis, community relations, school law, and myriad other topics. Candidates complete a 300-hour practicum and a professional portfolio which includes artifacts and reflections related to the Massachusetts Professional Standards for Administrators. The cohort model enables participants to develop important collegial skills and to benefit from the diverse backgrounds and perspectives represented in the group.

Both programs offer the option of a graduate degree. LLP students may earn a Masters in Organizational Management from Endicott College; LLPS students may earn a PH.D. from Lesley University. For more information on the Leadership Licensure Programs, visit www.mascd.org.

Applications are now being accepted for the class of 2009 for both the LLP and LLPS, which is the licensure program for superintendents. There is a tuition discount for applications postmarked by January 31, 2008. The LLP is held at MSSAA in Franklin; the LLPS takes place at READS Collaborative in Middleboro.
2007 LLP Graduates Join Ranks of School Leaders

Janet Begin – Director, Hill View Montessori School, Haverhill; Sherrill Caruana – Principal, Stony Brook Elementary School, Wilbraham; Chris Gelinas – 10th grade Housemaster, Waltham High School; Scott Hemlin – Assistant Principal, Mahar Regional High School, Orange; Lisa Kingkade – Assistant Principal, Stacy Middle School, Milford; Matt MacCurtain – Assistant Principal, Governor Carver School, Carver; Steve Meyer – Assistant Principal, Murdock Jr/Sr High School, Winchendon; Dan Rubin – Director of Guidance, Canton

Class of 2007 Orange Cohort


Class of 2007 Yellow Cohort

Are We Making Better Teachers?

By Nancy Witherell, Ed.D.

Bridgewater State College

What is the Point?

It was Friday afternoon and I was exhausted. I had been going non-stop for weeks helping to prepare for our national and state accreditation team visits. I had just spent five days in North Carolina as a team member on another accreditation visit, returning on Wednesday. Thursday had been a long day, too. I wanted to go home and put the week behind me.

The student I expected that Friday afternoon had not bothered to go to drop-in advising, stating she needed a “private” session.

“Melissa” had a seat in my office. Her story, along with her dreams, began to unfold. Our teacher preparation program has passed both state and national (NCATE) standards. Teacher preparation in our institution, like most, is not an easy program, as Melissa has learned. One problem she explained was her Grade Point Average (GPA), a 2.45. Our program, like others in the state, requires a 2.8 (some are higher) to apply to Professional Education and to register for upper level education courses. Melissa was far from the magic number, and since she had maintained a 3.5 GPA from her Associate’s Degree she was even more miffed.

Melissa’s second problem was passing the Massachusetts Test for Educational Licensure (MTELs). To become an Early Childhood Teacher in Massachusetts prospective teachers have to pass three MTELs: Communication and Literacy, Early Childhood, and Foundations of Reading. Ironically Melissa had passed the writing portion of the exam (which is usually the hardest for our students) but was having a hard time passing the literacy portion because of test anxiety. I glanced at her GPA of 2.45 and 110 total credits, which to me, evidences Melissa’s ability to read at a college level. But Melissa’s coursework reading uses different strategies to be successful and to gain understanding than those that would be applied reading the MTEL; coursework reading is more aligned to real life.

Melissa expounded on her joy of teaching. During the pursuit of her associate’s degree she had excelled. She spent every other week in a public school kindergarten and realized the more time she spent in that classroom, the more she was meant to be there. Melissa emphatically stated she was not going to give up this quest, her life dream of becoming an early childhood teacher.

“Melissa,” I inquired, “You said you work 35 hours a week. Can you cut the time down?”

Not with all her bills, she replies and goes on to state that she lives with her mother forty minutes away.

She takes her classes on Mondays, Wednesdays, and Fridays so she can work longer days on Tuesdays and Thursdays.

“Let’s talk budget. What are your bills?” I shamelessly ask this beautiful, energetic, and coherent young woman.

“Well,” she replies, “I pay $190 a month for my car insurance, $60 a month for my cell phone and it costs me $70 a week for gas.” A cell phone is not necessarily a luxury for a student going to a college that embraces collaboration, and Melissa is a young woman in today’s world driving an old Taurus 60 miles roundtrip.

Melissa goes on to say that she eats at school, but has started bringing sandwiches to save money, and car insurance payments take almost a whole paycheck, since she makes $234 weekly. And she does have a little on her credit card, but she is trying to get this down. She’s considering taking a summer course, which would be about $800. I didn’t have to read Nickel and Dimed (Ehrenreich, 2001) to figure out that Melissa is running as fast as she can, and I notice, she’s not wearing Adidas. I assume part of the credit card bills would be the $180 she paid to take the Communications and Literacy twice. She plans to take the literacy subtest again this summer, and even though she is only taking one-half the test in the four hours, she will pay for much more than one half of the test. I don’t ask how she’s paying for school or the bills she will have once she graduates. Instead, I focus on time management and how much better she could do if she could study for an additional 15 hours a week and work 20 hours. She replies it is not
possible, and I cannot counter her point.

There is nothing more to say on this. We talked options; we talked stay the course; we talked dreams. Melissa left with lots of information to sift through to help her take her next steps in life. For all of the mandated changes in teacher preparation and licensure I had to ask myself, “Are we making better teachers?”

Setting the Standard

Standards, we would all agree, are good things. They give schools, and in this case teacher preparation programs, goals. They determine what is good enough, as in passing the MCAS, the bar being what can be minimally accepted. “They” make these standards and requirements and “we” jump. Changes of standards and requirements can help professionals facilitate program improvements. We assume that as our program improves, teacher preparation improves, classroom teachers are more effective, and children in the classroom show more growth. This must be true, as an article written in the last issue of Perspectives (Driscoll, 2007) states that the MCAS scores have risen every year in the last ten years.

Every preparation program wants to graduate, and every school wants to have, “highly qualified teachers.” Teacher preparation programs in the state of Massachusetts have jumped through every hoop the state has mandated and continues to mandate. Each state requirement must be implemented, and with each implementation colleges change whole programs. We also run by the “catalog” year, as students are “grandfathered” into their initial application program. Each catalog program lasts the “student lifetime” which at the minimum is four years. Professors in our department could possibly be advising as many as three different program requirements at one given time. When state licensure changes are initiated, the mandates affect all teacher education candidates and programs.

Providing Perspective

There have been a myriad of changes in state standards and licensure regulations in my fourteen years as a professor of teacher education. In 1994 requirements for a second major in a state approved content area went into effect. Undergraduate teacher education programs began to scramble. For our program the second major was no problem . . . as soon as we knew which ones the state would accept. Does anyone remember the semester in 1996 when we graduated one class that was licensed for K-6? The state had taken the old K-8 to N-3 and 1-6, and then changed this to N-2 and K-6. Early Childhood specialists lobbied, worried that no one would be interested in a 4-year degree at the N-2 level.

In 2003 a list of specific mandated topics, such as selected literature and U.S. and world history went into effect. The state required 36 credits in this miscellaneous content. With these changes, our elementary students were left with 1.5 credits of electives. We were fortunate that our liberal arts and science colleagues easily collaborated and designed courses to meet the mandated specific topics of study. Whoever said college was a time to experiment? We had to remove classroom management, children’s literature, and children’s theater from the program to make this work.

Then there was the state initiative to bypass teacher preparation programs by allowing preservice teachers to simply pass the MTELs needed for their content area and obtain a license. This initiative failed because even though teachers knew their content, they didn’t know how to teach. They left the classroom almost as quickly as they got there.

There was even a short period of time state regulation changes allowed reading specialists an initial license with no classroom teaching experience. Our Reading Program Coordinator, like most in the state, refused to accommodate this change in her hiring practice. The only teacher I knew who went for reading with an initial license chose to accept a classroom position at the end of her first year. She felt her credibility with the classroom teachers was low, making her ineffective in her position.

We’ve attempted a variety of approaches to licensure over many years, and I am still asking the question, “Are we making better teachers?”
Passing the Test

The Massachusetts Test for Educational Licensure (or MTELs) made its pilot run in spring 1998. Actually, MTEL is the third name for the Massachusetts Licensure exams. Previously this exam was the MTT, Massachusetts Teacher Test, and then MECT, Massachusetts Educator Certification Test. Everyone in teacher preparation programs had to take the exams. This first run was not supposed to count, but within two weeks prior to the first administration, the state’s announcement came that the test would count. Test subjects struggled to transcribe an oral rendering of The Federalist Papers for two reasons: The Federalist Papers were written in 1787-88, and the tape examinees heard for the dictation was of a low quality. This test no longer requires dictation.

Even as the bumps have been worked out over the past decade, many students take the MTEL tests more than once. Some admit to taking them seven or eight times. (The Communication and Literacy is $90; the others, $120). Students in one of our cohorts printed tee shirts on the Top 10 of “block life.” Number seven stated, “Your credit card is maxed out on MTELs!” If students are working at eight dollar-an-hour jobs, simple math shows they are working 15 hours to pay for one MTEL.

It has now been deemed that the General Curriculum needed for Elementary Education and Special Education is not rigorous enough, and beginning in January 2009, the MTEL General Curriculum administration will have a math subtest. Also, there has been a decision to make changes in college curriculum content, which includes taking out the specific topic courses. . . Are we making better teachers?

A recent Boston Globe editorial entitled, “Needless Hurdles for Teachers” noted “The route to a teaching license in Massachusetts today is choked with bureaucratic brambles,” describing the problems this causes for teaching candidates and school districts. It concludes that the teacher licensure system “needs to be blown up.” Last January, Governor Deval Patrick chose Dr. Dana Mohler-Faria as his advisor in educational issues. While the Patrick administration may not opt to blow up the system in place, leaders in preservice teacher preparation are hopeful that this leadership will bring about the changes that are needed to streamline initial licensure.

When invited to write this article, the suggested topic was “How will preservice training effect and affect certification and teacher excellence?” Hopefully, someday in the near future that story can be written.

References

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Once a classroom teacher, Dr. Nancy Witherell is currently a professor and chairperson of the Department of Elementary and Early Childhood Education at Bridgewater State College in Bridgewater, Massachusetts. Dr. Witherell teaches literacy courses and has co-authored four books including Fluency in Focus (Heinemann), along with a series of three books for Scholastic on using tiered graphic organizers to differentiate instruction in Reading, Writing and Vocabulary. Nancy also wrote The Guided Reading Classroom, Keeping All Students Working Constructively (Heinemann, 2007) and has published numerous articles. Nancy has presented at local, national and international conferences, and is Past President of Southeast Regional Reading Council and the Massachusetts Association of College and University Reading Educators. Dr. Witherell is currently on the boards of the Massachusetts Reading Association and the New England Reading Association.
Policy, Practice, and Research on Alternative Certification of Science Teachers

By Allan Feldman and Morton Sternheim

University of Massachusetts, Amherst

A Meeting of Minds

In May 2006 the National Science Foundation funded a conference entitled, “Science, Technology, Engineering and Math – Alternative Certification for Teachers (STEM-ACT).” A major goal of the conference was to identify key issues related to the alternative certification (AC) of science teachers to support a more systematic study of AC efforts. A related goal was an examination of the extensive research on science teaching and learning that has been funded for the last 30 years by NSF and other agencies. We know a great deal about the teaching and learning of science in schools. What we do not know is how to incorporate this knowledge into AC programs. For this reason, a guiding question of the conference was, “What do we know and what more do we need to learn about how to incorporate the results of research on science teaching and learning into alternative certification programs?”

The conference was designed to facilitate a significant exchange of information synthesized to produce three white papers on the three threads of the conference: “policy, practice, and research.” On day one, all attendees presented their research and served as respondents to peer presenters. Papers were available ahead of time (see http://stemtec.org/act) so respondents could prepare thoughtful comments. In the morning of day two small groups identified the major ideas, and in the afternoon writing teams began the preparation of three white papers. This article provides an overview of the papers, beginning by addressing the questions:

- What are the policy issues in the alternative certification of science teachers?
- What is alternative certification and what does it look like?
- What research needs to be done?

Considering Policy Issues

Policymakers rely on studies that provide contradictory data about teacher supply and demand and the efficacy of alternative and traditional teacher education programs. An important goal of the policy group was to frame the problems that alternative certification addresses. They found that there are deficits in the quantity and quality of science teachers. Teacher certification public policy is concerned with addressing incentives and standards to ensure that there are enough qualified teachers; there must be enough quantity before quality can be addressed.

The policy group found that several factors affect the demand for science teachers. Gross factors include the number of classes that need to be staffed, teacher retention rates, and retirements. Demand depends on the geographic area, population growth or decline, student demographics, and funds available.

Impacting the supply of new science teachers is the limited number of people who receive training in the sciences, and their multiple career opportunities. The conference found that it is necessary to pay attention to both salary and working conditions to attract qualified people. The quality of the science teacher employed in a school will depend on the total compensation package (salaries, benefits, working conditions, and intrinsic rewards).

To balance supply and demand, districts can make several tradeoffs:

- choose to employ fewer teachers but maintain high quality standards (e.g., increase class sizes and/or offer fewer courses but of higher quality) or it can sacrifice quality by employing as many teachers as possible regardless of quality.
- sacrifice quality in science teaching to promote quality in other subject areas.
- sacrifice both quantity and quality just to stay solvent.

Science is costly to teach. Laboratories require a variety of materials and resources and high quality science teachers may cost more because of their short supply. The cost of high quality science teaching and the relatively low incentive to produce it combine to exacerbate the shortage of good science teachers, particularly in schools with highly constrained resources. Hard-to-staff schools are doubly challenged: they need to funnel resources to address basic needs and services and they have to compete with schools with more desirable working conditions.

The policy group found that the main goal in AC for science teachers
is to increase supply by reducing impediments to speed up licensure. This raises several questions:

- Do traditional certification programs produce a qualified pool of science teacher candidates?
- How many people knowledgeable in the sciences are available to be science teachers?
- Can policy makers shape science teaching so that it is competitive as a career with the other options available?

### Considering Alternative Certification

The term alternative certification is ambiguous. Many programs considered AC are housed in institutions of higher education and lead to both licensure and a degree. Some call only undergraduate programs “traditional,” and label all other teacher education programs as alternative. In addition, there is as much variation within programs as there is between programs. For example, Marjorie Wechsler reported on a large-scale study that found large variations among AC programs in the characteristics of participants (such as education backgrounds), previous careers and classroom experience; and in the components of the AC programs, including participant experiences with coursework, mentoring and supervision, and the context of their school placements (Wechsler, Humphrey, & Hough, 2006).

Given variations in program structure among programs labeled as alternative, the differences in candidate backgrounds within and among programs, and the wide range in the school contexts in which candidates were placed, the conference concluded that “there is no agreement about the definition of alternative certification, and there is some confusion as well about what constitutes traditional certification” (Zeichner & Conklin, 2005, p. 656). Rather than trying to compare traditional and alternative programs, one should consider a continuum of teacher preparation and support programs designed to serve the varied needs of schools and of pre-service and in-service science teachers. All effective teacher education programs should:

- include solid partnerships involving the state licensing authority, institutions of higher education, and local school districts in the preparation process of AC science teachers,
- select and recruit candidates for admission who match the design of the particular program,
- have responsive program design and delivery, and
- train teacher mentors in ways that address the specific needs of science teachers.

We must evaluate whether programs have these qualities and whether they have the desired outcome.

The evaluation of science teacher certification programs has two dimensions: teacher knowledge and teacher skills. Clearly science teachers need to know science. But how do certification programs ensure this? How do they determine the candidates’ knowledge, and how do they augment it when necessary? Science teachers also need knowledge of educational foundations and strategies. How do programs ensure this, and more importantly, how well versed are the candidates in the theories and practices that have emerged as a result of research on science teaching and learning, including research in areas such as culture, language, ethnicity, and gender? Candidates also must have the skills needed to create environments in which students learn. To evaluate this, programs need to look both at what their candidates do in classrooms and what the candidates’ students learn.

As the white paper notes, much of what is believed about the quality of teacher certification programs in general is not supported by evidence. It also notes that both supporters and critics of AC base their opinions on a very thin research base. Further research is necessary.

### A Research Agenda

The range across alternative and traditional programs leaves little opportunity for comparative studies. Still, there are three “divides” in teacher education that can be highlighted for research purposes. The divide that:

- separates programs that have as their primary purpose teacher licensure from those that have as their primary purpose the education of teachers;
- separates science teacher education from the education of other teachers; and
- separates preservice and in-service teacher education.

The first divide distinguishes between the programs that exist solely to help candidates meet the state minimum requirements, while the
two latter divides help teacher candidates to develop the knowledge, skills, judgment, and wisdom for teaching. The challenge is to design programs that have the benefits associated with credentialing programs yet prepare teachers to be effective science educators.

The second divide highlights the knowledge and skills that are particular to the teaching of science. It focuses on the difference between the content knowledge of school science and the content knowledge of the academic disciplines as practiced by scientists and presented to college students (Hill & Ball, 2004; Stengel, 1997).

The third divide (between preservice and in-service teacher education) has blurred as more and more novice teachers are already employed. Hence we see the distinction between novice and expert as being more fruitful than that between pre- and in-service. Therefore we need insight into:

- what kinds of learning opportunities support diverse learners’ science engagement and understanding,
- what science teachers need to learn in order to provide such opportunities for their students, and
- what kinds of experiences teachers need to learn what they need.

That is, if we want science teacher education to be research-based, then we need to have evidence that what and how we teach teachers benefits their students in meaningful ways. The research white paper argues that this research agenda requires mutually reinforcing activity on three fronts – conceptual, methodological, and empirical.

If teacher education programs are to have the qualities identified in the practice white paper, then there is a need for conceptual clarity about what and how science teachers must learn. Ongoing discussions about defining and refining research interests in useful ways for science teacher education would be a helpful step towards greater conceptual congruence. Rigorous research not only requires conceptual clarity but methodological support as well. In particular, there is a strong need for robust tools for measuring teacher change over time. Finally, we need to develop empirical warrants for our science teacher education practices. Without them, we cannot assume that our vision of science education reform “works” unless there is evidence necessary to back up claims.

The research white paper concludes with a list of questions proposed by STEM-ACT research participants:
- What science and in what form do science teachers need to know?
- How do we bridge traditional separations of pre-service and in-service teacher education to create a professional continuum of science teacher education that includes the induction phase?
- How do diverse teachers acquire the beliefs, knowledge and skills across a variety of educational settings and opportunities?
- Who are the science teacher candidates? How do age, race, ethnicity, and gender; prior experience; science knowledge; and context and societal influences effect or relate to candidates’ learning to be science teachers?
- How do we transform credentialing programs into research-informed educational programs?

Conclusion

There were several expected outcomes of the STEM-ACT conference. First, it explored what is known about the alternative preparation of science teachers and identified the agenda for future research. It also brought together experts in science education, teacher education, and educational policy with educational administrators and policy makers to help shape the dialog on alternative and traditional certification programs. In addition, by asking salient questions about the alternative certification of science teachers, the conference changed the unit of analysis from all teachers to teachers of science. This in turn opened up for inquiry the importance of the large body of research on the teaching and learning of science on the preparation of science teachers and inserted it into policy discussions about how

![Figure 1: Conceptual, methodological, and empirical fronts of research on science teacher learning.](image-url)
best to incorporate this knowledge into the training and certification of science teachers. Finally the conference aimed to impact the development, implementation, and evaluation of AC programs for science teachers that would help meet the national demand for more science teachers who know and can use the knowledge generated through science education research. With the publication and dissemination of the aforementioned white papers, national conversation on shaping the research and development of science teacher certification programs can begin.

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Measuring Preservice Teacher Preparation through Student Achievement

By Laura M. Garofoli, Ph.D.
Fitchburg State College

Identifying the Issues

In January 2002, No Child Left Behind (NCLB) was signed into law, mandating the installation of a highly qualified teacher in every classroom in America by the end of the 2005-2006 academic year; in March of that same year, First Lady Laura Bush hosted a conference to discuss the preparation of our future teachers.1 During this conference, Sandra Feldman (president of the American Federation of Teachers from 1997–2004), spoke about the realities of being unprepared to enter the classroom and the challenges of making sure that no teacher crosses the threshold of a classroom under those circumstances again.2 Feldman introduced the topic by discussing teachers who enter the profession via alternate routes, but the fact of the matter is that many of the teachers who complete preservice teacher preparation programs are nearly as ill-prepared for their first year of teaching as those who have had far less pedagogical coursework through a college or university.

Arthur Levine (2006), spearhead of The Education Schools Project in Washington, D.C., published the findings of a four-year examination of teacher preparation in America.3 This report, entitled Educating School Teachers (known to those of us in the field as “The Levine Report”) portrays the field of teacher preparation as being in a state of chaos with poor teacher preparation being the result of a number of contributory factors, including inadequate content and pedagogical preparation, schismatic curricula, disconnected faculty, low admissions standards, insufficient programmatic quality control, and varied institutional quality. The most powerful aspect of the report is that it emphasizes the analysis of teacher preparation in terms of student achievement, forcing us to keep our eye on the prize.

The question, then, is two-fold. The first issue is what preservice teacher preparation should entail to sufficiently support teacher success in the first year (and subsequently promote new teacher retention in the field). But the second and more important issue is how preservice teacher preparation can and should be structured to promote student achievement in the classrooms of teachers first entering the field.

Hitting Moving Targets

To answer these questions, we must examine the challenges that teachers face in the classroom. In addition to mastering the necessary depth and breadth of content knowledge required for each subject taught, teachers must also master the necessary pedagogical skills required to teach that subject matter in a meaningful and developmentally appropriate manner. In addition, teachers must also possess a sophisticated working knowledge of child development, classroom diversity, and the most current research findings in those areas. Without such knowledge, teachers are left ill-equipped to assess and analyze student progress and characteristics to meet standards while meeting the needs of all diverse learners in the classroom, including students with learning disabilities, emotional or behavioral difficulties, cultural or linguistic diversities, and varied experiential or socioeconomic backgrounds. We must recognize these are dynamic, moving targets that require vigilance to maintain research-based currency and competency in the field.

As such, it is the responsibility of all of us who are involved and invested in preservice teacher preparation to make a concerted effort to examine how we contribute to a novice teacher’s acquisition of the requisite knowledge and skills to meet the challenges of the classroom. It is clear that our children can no longer afford for colleges and universities to operate as islands unto themselves, nor can the departments of education within those institutions operate in this way. The only means by which teacher candidates will be properly prepared is through true partnership between departments of education and liberal arts and sciences departments. The two must work collaboratively to create challenging courses with content that is relevant to the teaching in which the candidates will be engaged and that lend themselves to the use of effective teaching...
and assessment methodologies during the delivery of that content. This may very well mean the creation of courses that are team-taught by faculty from both schools, and it will certainly mean a major reconceptualization on the parts of both faculties. Such a paradigmatic shift may force the move from traditional four-year degrees to five-year programs of preparation, which is one of the recommendations proffered in the Levine report.

**Continuity and Collaboration**

Content knowledge and college coursework are only part of the story. Colleges and universities must also learn to partner and collaborate with PK-12 schools to develop rich and meaningful field-based experiences for teacher candidates throughout their plans of study. These experiences should be directly linked to their content and methods coursework to ensure the development and application of appropriate pedagogical content knowledge and assessment practices in a developmental sequence at the level of the license sought by the candidate. Doing so would provide teacher candidates with an invaluable scaffold that culminates in student teaching.

NCLB can mandate a highly qualified teacher in every classroom, but with so much variability in teacher preparation and induction, the only true measure of success we will ever have is student achievement.

But should student teaching be the culmination of such scaffolding? The contention here is that it should not. A first year induction program would likely be more beneficial to teachers (and their students) if it were a continuation of the developmental sequence from preservice through service; and having an effective partnership between higher education and the PK-12 system could place the goal within reach. Developing collaborative, reciprocal relationships with mentor teachers and administrators is essential. Professors are often disconnected from the realities of the classroom, while school professionals might be disconnected from current research. In addition, Levine and others have cited scholarship as an area in need of significant improvement among education faculty. Working together, the two groups could form a mutually beneficial partnership and a level of continuity for first year teachers that would likely go a long way towards helping them to feel effectively supported, nurtured, and mentored.

**Conclusion**

The goal in quality preservice teacher preparation is student achievement. Without a valid and reliable measure of the impact of effective teacher preparation practices upon student achievement outcomes and education faculty's investment in developing, implementing, and promoting such scholarly work, changes to teacher preparation and first year induction programs will be meaningless. In addition, organizations such as NCATE and TEAC must begin to consider student achievement in their accrediting processes if they are to be effective movers of change and progress. The Levine report goes a long way towards defining criteria essential to effective teacher preparation, all with the goal of improved student achievement.

Those of us invested in teacher preparation must force ourselves to keep our eyes on this goal. NCLB can mandate a highly qualified teacher in every classroom, but with so much variability in teacher preparation and induction, the only true measure of success we will ever have is student achievement.

But should student teaching be the culmination of such scaffolding? The contention here is that it should not. A first year induction program would likely be more beneficial to teachers (and their students) if it were a continuation of the developmental sequence from preservice through service; and having an effective partnership between higher education and the PK-12 system could place the goal within reach. Developing collaborative, reciprocal relationships with mentor teachers and administrators is essential. Professors are often disconnected from the realities of the classroom, while school professionals might be disconnected from current research. In addition, Levine and others have cited scholarship as an area in need of significant improvement among education faculty. Working together, the two groups could form a mutually beneficial partnership and a level of continuity for first year teachers that would likely go a long way towards helping them to feel effectively supported, nurtured, and mentored.


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Learning to Teach Elementary Mathematics: Understanding the Sociocultural Experience of the Preservice Teacher

By Mary T. Grassetti
Holyoke Community College

Redefining Reform

Mathematics teaching is a complex process (Lerman, 2000) and classroom teaching and learning is a “multifaceted, extraordinarily complex phenomenon” (O’Connor, 1998, p. 43). The decisions and actions of elementary mathematics teachers have a powerful impact on what students learn in the mathematics classroom (NCTM, 2000). Naturally, the decisions teachers make in the classroom are influenced by their habits and attitudes regarding how mathematics should be taught and learned. Research indicates that most of the preservice teachers in college classrooms today have experienced a traditional approach to learning mathematics in most, if not all, of their elementary, middle, high school, and college classes (Schnieder-Kirschner, 2002).

Although the reform agenda initiated by National Council of Teachers of Mathematics (1989) has had an impact, the impact has been superficial (Kazemi & Stipek, 2001). O’Connor (1998) articulates the superficiality of the reform effort succinctly in her statement, “the accouterments of practice may change, and the terminology changes, but often teaching practices retain their prereform character, in spite of attestations by practitioners that they have changed” (p. 43). And Ball (1988), a teacher educator, states that teacher education itself is a “weak intervention” (p. 2) with teachers often teaching mathematics the way they were taught despite reform efforts in mathematics teacher education.

In the past decade, scholars as well as the NCTM have called for a greater emphasis on connecting procedural knowledge with conceptual knowledge in the area of mathematics education (see Ball, 1990/1996; Borko, et al., 1992; Ma, 1999; McClain, 2003; NCTM, 2000; Simon, 1993). As a result of this emphasis on conceptual understanding, curriculum developers have begun to introduce reform mathematics curriculum into the textbook market (Ball, 1996; Hill & Ball, 2004). The vast majority of U.S. teachers, however, possess a limited procedural understanding of mathematics, at best, making the implementation of such curriculum difficult (Ball, 1990). If students are to become proficient in the procedural aspects and the conceptual underpinnings of mathematics, then teachers must also obtain this proficiency.

Conceptual Understanding

U.S. teachers struggle with the concepts underlining the procedural aspects of mathematics (Ma, 1999), thus teaching for conceptual understanding becomes a complicated often frustrating process. *Investigations in Number, Data, and Space* (1995), is a comprehensive K-5 mathematics curriculum designed to develop students’ flexibility, confidence, and conceptual understanding when working with mathematical problems. Many of the teachers who are expected to use such a curriculum do not possess a flexible, confident, conceptual understanding of mathematics (Ma, 1999) or what Ma (1999) calls a profound understanding of fundamental mathematics (PUFM). Teachers who are struggling with the conceptual underpinnings that reformed-based mathematics curricula bring to light will have difficulty teaching this type of curriculum.

Research indicates that most U.S. teachers do not possess a rich conceptual knowledge base of mathematics (Ball, 1990; Hiebert & Lefevre, 1986; Ma, 1999; Simon, 1993). Teachers’ past mathematical experiences have reinforced rote procedural knowledge of mathematics at the expense of conceptual knowledge. In Ball’s (1990) study of preservice teachers’ understanding of mathematics, one student commented “I’m not scared that kids will ask me, you know, a computational question – that I can solve; I’m more worried about answering conceptual questions” (p. 459). This sentiment is reiterated throughout the literature on U.S. teachers’ conceptual knowledge of mathematics. Schnieder-Kirschner (2002) found that the preservice teachers she worked with were intelligent, knowledgeable, and self-assured individuals, however, when considering teaching elementary mathematics many believed they “could not do mathematics” (p. 5). This is a troubling piece of the preservice teachers’ belief system and one that must be addressed throughout the preservice teacher’s educational experience and beyond.

As an elementary mathematics teacher educator I have had the opportunity to work with preservice teachers as they begin to grapple
with their own limited mathematical understandings, in relationship to the standards set forth by NCTM (2000). These future educators are being asked to teach mathematics in a significantly different way than how they learned mathematics. What are the developmental processes involved in learning to teach mathematics? Much research has been done to study how children develop a deep conceptual understanding of mathematics, however, little research has focused on how preservice teachers come to know mathematics differently than how they learned mathematics or on how preservice teachers learn to develop classroom communities in which both students and teachers engage in rich contextual discourse (Putman & Borko, 2000). How preservice elementary mathematics teachers learn to reform their own assumptions, habits, and attitudes and ultimately develop a teaching practice that reflects the reform initiative is a critical question and one of high priority, if we are to expect students in the classroom to be engaged in mathematics in meaningful ways.

**Gender, Culture and Control**

Who are preservice elementary mathematics teachers? This is an important question to ask when working towards uncovering the social and political aspects of mathematics education. According to the National Center for Educational Statistics (2003) 74.5% of the U.S. teaching force is female and according to studies complied by the American Association of Colleges of Teacher Education (1999) females make up 85% of the candidates enrolled in elementary teacher preparation programs. NCES data for 1999-2000 reveals that 84% of the teaching population is white non-Hispanic. The average age of the preservice teacher is 23-25 resulting from the increase of graduate and alternative programs in teacher education (Zumwalt & Craig, 2005). The socioeconomic background of preservice teachers has historically been linked to the lower and middle classes and used as a means to attain upward mobility, however, interesting trends to note is that females and minorities from higher socioeconomic backgrounds are not choosing teaching as a mobility mechanism because they now have other job opportunities available to them that offer more upward mobility than does the profession of teaching (Zumwalt & Craig, 2005).

The U.S. teaching force is predominantly female and on the surface this may seem reason for concern. However, Griffiths (2006), a feminist scholar, views the feminizing of teaching as a positive and welcomed change from the “hegemonic masculinity” (Griffiths, 2006, p. 387) that has dominated the educational landscape. Insofar as numbers are concerned, the feminization of teaching has been holding constant for the last several decades with little to no significant change in the number of women who are entering the field (Griffiths, 2006). However, the actual feminization of the practice of teaching has yet to happen with the practice of teaching becoming more male hegemonic as “government policy across the world increasingly imposes managerialism on schools” (Griffiths, 2006, p. 402). Griffiths argues that when feminist practices do appear they are “never hegemonic” (p. 388) because feminist practices embrace “embodied relations, diversity, and sociopolitical structures of power” (p. 393). The feminization of the practices teaching will help to uncover and give significance to the sociopolitical context of the preservice teacher’s mathematical experiences and how these experiences influenced her own mathematical learning and ultimately the ways in which she will teach her future students.

What would be the consequences of the feminization mathematics? For one thing feminizing mathematics would acknowledge new voices and in doing so new questions might emerge. When contemplating this same question Burton (1995) asked:

> “How might including many of those outside the mainstream of mathematical development influence its conjecture, its methods of inquiry, and interpretations of its results? In turn, how might any changes that resulted from a philosophical shift, affect the pedagogy and epistemology of the discipline? In particular, what epistemological questions which are sharpened by bringing a feminist critique to bear on the discipline of mathematics?” (p. 277)

According to Burton (1995) the circumstances under which mathematics is produced has a profound effect on “determining the products” (p. 279). She goes on to say that in a society fashioned on power relationships, with gender being one such relationship, the products produced by such a system reconstitute the already established power relationships. Allowing the feminine voice as well as other voices outside the mainstream of mathematics will have a profound effect on the discipline of mathematics and the products produced.

When considering that the typical elementary school teacher is female, one must also consider how she has been educationally socialized. In the early to mid nineteenth century the education of women focused on the preparation of women to be wives and mothers. The late nineteenth century brought about a call for women to have access to the standard curriculum available at the time only to men. Lastly, in the latter half of the twen-
tieth century the education of women has taken on a new focus – that of challenging the “male hegemony over the content of college courses and the substance of knowledge itself (Boxer, 1982). This line of inquiry “asserts the legitimacy and validity of women’s experiences as fully equal to, although at least partially different from, those of men (Maher & Rathbone, 1986).

How in teacher education do we render the experiences of women and others outside the mainstream as valid? Schooling in the U.S. has traditionally held females and minorities to the same academic standards as their white male counterparts – higher grades equals success (Maher & Rathbone, 1986). The qualities that are necessary to achieve this type of success – “assertiveness, individualism, and competitiveness” (Maher & Rathbone, 1986, p.216) - are counter to the qualities and standards in which females are socialized in and held to – “cooperation, nurturing, and sensitivity to others” (Maher & Rathbone, 1986, p. 216).

If, as social constructivism suggests, all knowledge is connected through a shared cultural substratum and is a social construction, (Ernest, 2004, p. 17) then it would make sense that in the process of teacher education, preservice teachers be offered opportunities to deconstruct their past educational experiences in order for them to rebuild an understanding through the validity of a valued female or “other” perspective. In this way preservice teachers will begin to construct their own knowledge about teaching and learning rather than continually reproducing the dominant mathematical perspective that permeates mathematics classrooms.

Preservice teachers often enter teacher education programs with an external locus of authority (Cady, Meier, & Lubinski, 2006). With an external locus of authority one believes knowledge is an absolute and something that is given to an individual by someone else (Cady et al. 2006). Cady et al. (2006) advocates for helping preservice teachers to develop an internal locus of control thereby allowing preservice teachers to view knowledge as something that they can construct rather than something that must be given by others. Understanding how preservice teachers move from an external locus of control to an internal locus of control is a question worth asking.

After careful and critical reading in the area of mathematics preservice teacher education, I have found ambiguity in how preservice teachers transform their personal ideas of how mathematics should be taught and learned, thus hindering preservice teachers’ ability to develop a mathematical teaching practice that promotes conceptual understanding for their future students. Furthermore, in analyzing other reviews of the literature on learning to teach mathematics, it is evident that the literature base is in need of critique. Utilizing a social constructivist framework offers an opportunity to review the literature on learning to teach mathematics with the perspective that mathematics is a socially constructed entity.

Conclusion

Although the reform agenda advocates shifting from rote memorization of basic mathematical facts to a conceptual understanding of mathematical topics and concepts, the historical modernist past has been the dominant force in preservice teachers’ mathematical educational experience. Many of the preservice teachers in college classrooms today were educated during the height of the reform effort; however, the reform initiatives have had little impact on how mathematics is taught (Hardy, 2004). The changes that have been made in school mathematics have been superficial and “students persistently experience a fundamental curriculum of fact learning and routinized computations where they are expected to be consumers of established mathematical truths” (Hardy, 2004, p. 104).

Taking into consideration the ways in which preservice teachers have been socially enculturated into understanding mathematics will require mathematics teacher educators and researchers to think about and consider the cultural nature of the preservice teacher’s mathematical experiences and how these experiences impact the teaching of school mathematics. In taking up the stance that teaching and learning mathematics is cultural and political we may come to an understanding of why students fail to learn school mathematics (Hardy, 2004).

It is clear that teaching elementary mathematics is not elementary in any sense of the word. Elementary mathematics courses lay the foundation for future abstract mathematical reasoning. In order to ensure that the foundation is solid, teachers themselves must rebuild their own mathematical foundations. Future research in the area of rebuilding a structure (mathematical knowledge) that has been set in stone, so to speak, must be done in order to understand how preservice teachers learn to dismantle their mathematical knowledge in order to rebuild a conceptual foundation that will ultimately support students’ conceptual understanding of mathematics. Preservice teachers are being asked to teach mathematics in a significantly different way than how they learned mathematics. Their formal mathematics learning was based on the model that knowledge acquisition is authoritarian in nature, is transmitted from teacher to student and is in sharp contrast to the model of cultural participation supported and accepted by the mathematics education community (Yackel & Cobb, 1996).
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National Council of Teachers of Mathematics.


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Zoning in on New Teachers: A Principal’s View

By Edward Hardiman, Ph.D.
St. John’s Preparatory School

Enhancing School Culture

Over the last several years, the concepts of core values and school culture have dominated a great deal of literature on school leadership. School culture has been defined as “the deep patterns of values, beliefs, and traditions that have been formed over the course of [the school’s] history” (Deal and Peterson, 1990). Core values, drawn from the culture, infuse the leadership, teaching, and learning of a school and flow from the school’s mission statement, identity (public, sectarian or independent), goals, and purposes.

School leaders have an indispensable role in developing the culture of a school or school district. Assuring that new teachers have the ability and the inclination to enhance a school’s culture and embody the school’s core values in all that they do is a foundational responsibility of that role. The challenge of this responsibility is exacerbated as many new teachers have rarely reflected on their own core values. Many times these teachers simply emulate the characteristics of teachers in their personal educational journey as they begin their own educational practice.

The important question that faces many leaders is how one addresses the challenges and tensions of empowering new teachers to develop an operative understanding of a school’s culture while confronting the day-to-day realities and struggles of beginning teaching.

Institution Building and Teacher Socialization

S. N. Eisenstadt (1968) reflected upon the work of Max Weber, a noted sociologist who did a tremendous amount of research on the concept of institution building. He developed a model that can assist school leaders in ensuring that novice teachers have an inclination and ability to embody the core values of the school and district.

Weber believed that institutions are consistently developed in society as individuals come together to form structures to address needs and facilitate exchange of goods and services. Institutions, in Weber’s construct, were built to connect individuals in the pursuit of shared purpose. Eisenstadt, building on Weber’s construct, used the work of Edward Shils (1961) to provide a model for ensuring that institutions remain faithful to their core purposes. In Shils’ terms, the goal of the leadership is to ensure that there is some “central zone” that provides a deeper purpose for the institution. The essence of this central zone is that it provides meaning for the work of the institution. Effective institutions are involved in an ongoing assessment of their central zone and the means employed to ensure that all constituents have the possibility of connecting to the central zone. Institutions that do not employ such assessment become self-serving and self-perpetuating and are no longer effective in empowering constituents to develop a deeper meaning and understanding of their experience.

Brock and Grady (1996) and Sergiovanni (2000a, 2000b) assert that school leaders have an integral role in ensuring that new teachers and teachers new to the school have the ability and inclination to embody the core values of the central zone. Daniel Lortie and Sharon Feiman-Nemser offer polar opposite perspectives relating to how new teachers come to understand their personal visions and values. Lortie (2002) asserts that many teachers are formed by the “apprenticeship of observation.” The ideas, beliefs, values and understandings of prospective teachers are formed through their unique experiences as students. Lortie’s passive concept of teacher socialization is countered by Feiman-Nemser (Feiman-Nemser, 2001a, 2001c; Feiman-Nemser & Floden, 1986; Feiman-Nemser, Schwille, Carver, & Yusko, 1999; Feiman-Nemser & Buchmann, 1986) who asserts that teachers can be formed through constant experiences of critical reflection and assessment of individual belief structures.

School leaders, whether adherents to the theories of Lortie or Feiman-Nemser, must develop a lens to assess the congruence between their stated core values and their actual school / district culture. This lens must seek to examine experiences of all those who are new and are seeking to become connected to the goals, purposes and values that serve as the central zone. The process of assessment and reflection must be done in context and take into account both internal and external factors that influence the institution. The diagram in Figure 1 provides a model for assessment.

In this model the central zone serves as the heart of the school. The leadership of the school is challenged to assess the ability of new members of
the institution to connect to the central zone. In the context of St. John’s Preparatory School, the school that I lead, our school values are informed by our identity as a Catholic, Xaverian Brothers Sponsored School. In addition to this identity, we are actively working to foster the development of an adult community of learners committed to engaging all members of a diverse student body through excellence in teaching and learning. These aspects of our central zone demand attention and focus in the process of working with new teachers and teachers new to the school.

A Practical Approach

Throughout the hiring process, the staff at St. John’s Prep works to assess an individual’s ability and inclination to embody the core values of our school culture. In the process of advertising for prospective candidates, we seek to contact institutions and agencies that share the core values of our school. Department chairs and faculty members talk about the specific needs of the department and review credentials with the lens of departmental, school, and school culture needs. Candidates invited to come to campus for an initial interview are required to draft a personal vision statement that requires reflection on:

- The vision and values of Xaverian education as articulated on the Xaverian Brothers Sponsored Schools web site (http://www.xaverianbrothers.org)
- The mission and values of St. John’s Preparatory School (http://www.stjohnsprep.org)
- The individual’s commitment to embrace the gift of racial diversity in our school and local community.

The process of drafting the vision statement, in 300 words or less, requires candidates to reflect upon their values and to concisely describe their ability and inclination to embody the central zone of St. John’s Prep. Prospective candidates participate in two interviews during the hiring process. The initial interview focuses on content and pedagogical issues and the second interview focuses on the mission, vision, and values of St. John’s Prep as a Xaverian Brothers Sponsored School. The values of diversity and engaging all students through excellence in teaching and learning permeate both interviews.

Once a teacher has been hired, he or she is required to participate in a three-day orientation program with teachers from the other twelve Xaverian Brothers Sponsored Schools (XBSS) in the United States. This experience is considered foundational by teachers new to the XBSS network. The program focuses on the history of Xaverian education and challenges new teachers to reflect upon how they will embody the central zone of Xaverian education. In this experience, participants come to understand the larger purpose of their respective schools and develop a connection with their peers connected to the same central zone at other schools in the United States. Teachers also have the opportunity to build community with new teachers in their respective schools. This community building happens in a context that is permeated by the values of the school and not the isolation of the classroom. St. John’s has also developed a school orientation program that requires new teachers to participate in a daylong program dealing with fostering a multi-cultural approach to education. The orientation program includes time for new teachers to share experiences and ideas and to work with veteran teachers as a means of fostering openness to collegiality and professional dialog with peers. The program concludes with a focused discussion on the “Criteria for Effective Teaching at St. John’s,” a document drafted by a faculty committee and used as the primary evaluative tool for teachers new to the Prep community.
Over the last five years, our program for new faculty has been adapted to fit the needs of incoming teachers. The constant in the adaptation process has been the desire to ensure that we empower new teachers to connect to the central zone of the school culture, mission, and values at St. John’s.

The Challenge Moving Forward

As school leadership looks to strengthen institutional commitment to ensuring the vibrancy of their central zone, some practical steps can be taken:

- Develop a district or network wide orientation program that all new teachers are required to attend. Keep the focus on the core values of the system or network.
- Develop a formation program for those involved in the hiring process.
- Ensure the school or district program for new teachers and / or teachers new to the school or district includes a comprehensive hiring process rooted in the core values of the school, mentor teachers, training for mentor teachers, opportunities for small group discussion
- Develop opportunities for new teachers to reflect upon how their ideas about teaching and learning are translated into action in their classrooms.
- Develop shared criteria for effective teaching that include both the cognitive and affective domains.
- Develop and use a lens to assess the school culture’s fidelity to the articulated core values.

In the context of today’s popular and educational cultures, zoning in on core values is imperative. Our students and teachers must see a deeper purpose to their educational journey. A school culture consonant with core values that touch upon the cognitive and affective domains will achieve this goal.

References


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The Quest for Quality and Relevance: Recommendations for Improving Preservice Teacher Preparation

By Joshua Oje Aisiku, Ph.D.
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Licensed to Teach

Twenty years ago, the Joint Task Force on Teacher Preparation (JTTP) was created by the Commonwealth of Massachusetts Board of Regents of Higher Education/Board of Education. In October 1987, the JTTP issued its report titled, “Making Teaching a Major Profession.” One of the highlights of that report, most relevant to the theme of preservice preparation of teachers, is the elimination of the single-phase licensure, a kind of one time certificate for life, replaced by a two-phase certification: Provisional Certification and Full Certification. Over time, and prompted by the desire to attract career changers into the classrooms as teachers in the high-demand, under-supplied areas of mathematics and science, a third certification phase was introduced. The Education Reform Law of 1993 gave impetus and legality to the three certification (or licensure) phases that emerged and exist to date: The Provisional Certificate (now the Preliminary License), the Provisional with Advanced Standing Certificate (now the Initial License), and the Standard Certificate (now the Professional License).

The Preliminary License is issued to Bachelor’s Degree holders who pass the relevant portions of the Massachusetts Test for Educator Licensure (MTEL). This license does not require any prior education courses or pedagogical skills. The Initial License and the Professional License require possession of a minimum of Bachelor’s Degree in a subject area of teaching, education courses, and supervised practicum/clinical experience. For Professional Licensure, additional content courses at the graduate level are required. The point to note for emphasis and further examination is that all three licenses permit entry into the rank and file of classroom teachers in the state public schools. Thus, the pertinent question to ask in consideration of the theme “Reality Check: Preservice Preparation for First Year Teaching” is, should the Preliminary License confer qualifications for entry into the classroom as educators with direct and full teaching responsibilities? This question is important because an increasing number of first-year teachers in the state public schools are holders of this license. To provide adequate background to the issues and concerns regarding entry into classroom teaching without formal preservice preparation, and to assess the adequacy and relevance of aspects of the Initial Licensure programs, it is important to first examine the nature of teaching and the teaching profession.

Should the Preliminary License confer qualifications for entry into the classroom as educators with direct and full teaching responsibilities?

Art and Science

Teaching is an activity, yet it is often debated as an art and a science. In reality, teaching is an art informed by science. The activity of teaching is deliberate and purposeful; it is planned. A teaching activity is characterized by someone who knows, making something worth knowing known to others.¹ In a similar tone, D. Bob Gowin explains teaching as, “Making Sense of What is Known”² and placing teaching at the heart of formal education. According to Gowin, formal education is, “… the deliberate and intentional intervention in the lives of humans [students] using materials carefully selected in accordance with some criteria of excellence.”³ Implicit in this act of interaction that characterizes teaching is the strong demand for competence in three critical areas: personal qualities of love, care, concern; artistry and creativity; sound knowledge of subject matter and pedagogical skills.

Furthermore, teaching as espoused in these views is a partnership activity, the partners being students. It is a human activity done by humans (teachers) as persons with expert knowledge; it is done with the active partnership and participation of other humans (students) as persons who want to know or are placed in a position to know. The person doing teaching with other persons must know the sociological contexts and environmental conditions that by nature and nurture influence the classroom behavior of those partners. For a teaching interaction to yield success and meaning for both partners, the psychological factors of human needs, growth and development, the nature of learning and learning styles preferences, must be considered. Finally, something made known to
others in a teaching activity (subject matter) is the ‘material thing’ used in the act of deliberate and intentional intervention. Subject matter represents selections from the disciplines of knowledge and contains meanings (knowledge claims) that must be made meaningful to the students in their role as active participants. Hence the definition of teaching as the intentional (purposeful) act of a person to share the meaning of subject matter with others (Aisiku, 1975, p 45).  

The above analysis of teaching unveils and elevates three crucial areas of competence. One, competence in cultivating personal qualities and characteristics that permit caring and quality attention to students, the key partners in a teaching event. Two, competence in an area of knowledge that constitutes the substance of interaction and intervention in teaching. And three, knowledge of the students. This is the basis of the classical triad of injunctions for anyone who engages in the performance of teaching: “Know thyself,” (i.e. knowing one’s personal dispositions relative to effective teaching), “Know thy students,” (i.e. students’ psychological and sociological state that inevitably impact their involvement in teaching), and “Know thy subject matter” (i.e. knowing subject matter in ways that foster meaningful learning and retention). These injunctions should constitute the major competency areas and pedagogical skill base for preservice preparation programs. No one should be allowed into the classroom as a licensed educator without training and demonstration of competence in these areas.

The science of teaching explains teaching in its skills and knowledge constituents. Years of research and the collation of exemplary classroom practices have yielded dependable, field-tested techniques and strategies capable of replication in appropriate circumstances and conditions. To a very large extent teaching qualifies as a distinct area of study, a concept with some set of theories and principles that should guide consistency and efficiency in the practice and performance of teaching. This view of teaching as an area with defined and specialized bodies of knowledge is essential in our consideration of teaching as a profession.

A Major Profession

The literature is replete with claims and counter claims about the status of teaching as a major profession; claims that usually expose what is generally referred to as characteristics of a major profession. Ornstein and Levine (2006) identified ten such characteristics from relevant literature on the subject. Five of them apply to existing licensure requirements and in particular, the preservice preparation of first-year teachers in the state of Massachusetts:

1. A sense of public service; a lifetime commitment to their career
2. A defined body of knowledge and skills beyond that grasped by lay persons
3. A lengthy period of specialized training
4. Control over licensing standards and/or entry requirements
5. An acceptance of set of performance standards. Responsibility for judgments made and acts performed related to service rendered; (Ornstein and Levine, 2006, p 31)

Certain key aspects of these characteristics should be highlighted to trigger further analysis. A good number of first year teachers hired under the Preliminary Licensure regulations do not show an appreciable level of commitment to the profession. They do not possess the investment of training needed for the desired lifetime commitment characteristic of a profession. According to an unpublished DOE “Discussion Draft: Elements of A New System for Education Effectiveness in Massachusetts,” dated April 24, 2007, “Career changers and others attracted by expedited paths to teaching are leaving the profession at higher rates than their traditionally prepared peers.” The draft further notes that, “concerns are widespread that new teachers are not always prepared for their roles."

The findings in the DOE survey confirm a major concern that Preliminary Licensure, which permits entrance into first year teaching, does not fit the category or description of preservice preparation. We therefore turn our focus to the Initial Licensure phase of preservice preparation.

The Initial Licensure Program: A Critical Review

The Initial Licensure program is typically of four years duration. On the surface, it could be considered adequate on the “lengthy period of training” criterion of a profession. However, the structure and curriculum content of the program is open to debate in terms of constituting acceptable specialized training; particularly the programs for licensure at the middle and secondary school levels (grades 5-8 and 9-12). Most programs for licensure at these levels devote less than one-third of the total requirements for graduation and licensure to pedagogical skills and only require a minimum of one hundred and fifty hours of practicum or student teaching.

Much has been written about the four-year undergraduate Initial Licensure program, drawing attention to the inadequacy of four years to prepare prospective teachers for...
competence in the vital areas of sound knowledge of subject matter, pedagogical skills, and training in classroom practices. The issue of gross fragmentation and the general lack of coherence of the programs, characterized by sets of disconnected individual courses, has been widely noted. This issue of lack of coherence and the inadequacy of four years has prompted the proposal of five-year preservice programs.

The inadequacies noted above transcend the issue of duration to include the lack of clear understanding and vision of what is entailed in learning how to teach, a vision generally referred to as the pedagogy of teacher education. This pedagogy requires a different curriculum and structure that the four-year undergraduate teacher education program cannot support nor foster. Most of the existing programs are characterized by the concentration of subject matter knowledge courses in the Liberal Arts and Science departments, taught by faculty with minimum contact with education faculty. The education faculties provide and teach the pedagogical skills in courses on foundations of education, curriculum, classroom management, methods of teaching, assessment/evaluation, etc. A period of student teaching that varies in duration completes this training. This program structure reflects the noted fragmentation, where articulation, coordination, and collaboration seem nonexistent.

A system that separates content knowledge courses from pedagogical skills perpetuates a flawed assumption that knowing what to teach is a guarantee for knowing how to teach. As D. Bob Gowin noted, “there is a distinction between scholastic knowledge of subject matter and pedagogical knowledge of subject matter.” The former mode of knowledge entails knowing an area in the pathway of scholars in the respective fields, while the latter mode of knowledge entails knowing an area for instruction (teaching). Knowing an area for instruction demands special training in structure of knowledge analysis. It demands not just comprehension, but in addition, the ability to interpret, translate, and then transmit knowledge to students. It requires taking cognizance of students’ cognitive levels of understanding in subject matter presentation, while retaining the integrity, substance, and intended meaning of subject matter.

This proposal for pedagogical knowledge of subject matter stems from two main considerations. One, the demand placed on classroom teachers to align their subject matter coverage to the state curriculum frameworks. Two, to ensure that daily lesson plans address specific learning standards in the respective strands, noting the demands of the Massachusetts Comprehensive Assessment System (MCAS). Hence, the increasing expectations for teachers to have a sound knowledge of content and to apply such knowledge to translate and transform curriculum frameworks into appropriate instructional objectives and activities in daily lesson plans.

This expected area of knowledge and ability has both content and pedagogical dimensions that should constitute a vital part of viable and potentially effective preservice preparation programs. It must be recognized that academic knowledge of subject matter obtained in Liberal Arts and Science courses, though necessary, is not sufficient for efficient classroom practices, particularly in the area of effective implementation of curriculum frameworks. Content knowledge requirements in the current DOE Licensure Regulations seem to be driven by the perceived benefits of more content courses. Content courses demand corresponding concern for relevance from the viewpoint of how content courses relate to respective Strands and Learning Standards in the curriculum frameworks. This concern for relevance of content courses in effective implementation of curriculum frameworks constitutes important and special knowledge of subject matter (pedagogical knowledge) that should be given more emphasis in current preservice preparation programs. It is against this background of concern for relevance that some recommendations for changes have been made; notably changes that could foster better coherence and greater collaboration between the Liberal Arts and Sciences departments and the Education departments in colleges/universities.

**Recommendations**

The following recommendations are offered, in part, by the deficiencies and inadequacies noted in the current system of preservice preparation. The amount of training (i.e. length of training), the structure and content of such training, and concern for coherence and collaboration constitute some of the critical areas considered in the recommendations that follow:

1) **Increased period (years) of Preservice Preparation.** Most states are requiring prospective preservice preparation programs to offer more content courses in the Liberal Arts and Sciences and at the same time provide opportunities for a greater array of pedagogical skills. Demand for more teacher accountability, better school quality measured by students success in standardized high-stakes achievement and graduation tests, and the increasingly stringent federal and state mandates, are some of the recent
initiatives that impact current classroom practices, school policies, and principles. These developments must first take root in teacher preparation to ease pressure and ultimately foster quality and excellence in teaching. These developments and the quest for excellence give impetus to the growing popularity of the call for five-year undergraduate programs, supported in this recommendation.

It has become quite apparent that the four-year programs do not foster appreciable substantive changes in terms of structure and vision. For example, multiple semester practicum experiences that supports induction, possible in the five-year programs, have greater potential for more efficient preservice preparation for first year teaching. Accommodation of more innovative education courses, as well as support for increase in the number and relevance of content courses, are obvious benefits of the five-year programs. Greater emphasis and attention can be given to courses in special education and counseling and to technology courses that are capable of providing skills very much needed for success in today’s classrooms.

2) **Partnership Between School Districts and Schools/Colleges of Education.** This recommendation should be seen as lending support to numerous proposals in the literature for institutionalized relationship between schools/colleges of education (Departments of Education in some institutions) involved in teacher licensure, and the school districts. The proposed partnership in this recommendation goes beyond the present practice that seems to reflect somewhat loose relationships in which schools take in preservice students for student teaching or clinical experience and in some cases, colleges/universities carry out research and teach few courses in their Professional Development Schools. The recommendation here calls for ongoing, contractual or institutionalized formal partnership. Such partnership involves providing professional development for both partners, sustained mentoring and induction programs, sharing personnel as adjuncts, and commitment to fostering teaching excellence through the development and use of performance evaluation instruments.

The partnership colleges/universities would be required to develop courses on mentoring. Such mentoring skills programs would be implemented in seminar courses held in the colleges and in the participating schools to foster greater vitality and collaboration envisaged in this recommended partnership. The partnership involves the use of qualified teachers in the participating schools as adjuncts in college courses while college faculty are expected to provide professional support for the public schools’ mentoring programs in a more direct, formalized and systematic arrangement. The prospect of greater collaboration and mutual exchange of ideas and personnel extends the present concept of Professional Development Schools. The partnership proposed here is in the interest of more efficient teacher licensure and induction, as well as overall professional excellence.

3) **Mentoring and Induction.** There seems to be a general acknowledgement of the importance of mentoring. However, the consensus is that mentoring and induction are not done adequately in most school districts. The recent survey, done by the Massachusetts Department of Education (DOE) in 2007, tends to support this disturbing consensus. The DOE noted that “in a survey of 3000 educators in their first and second year of employment, over 20% responded they experienced little or no induction . . ., 1/3 responded they didn’t have a support team/mentor, and 1/3 of those with a mentor reported never having their teaching observed by a mentor . . .”

The deplorable situation of inadequate mentoring and induction should not be allowed to continue. Any meaningful concern for promoting teaching effectiveness and fostering retention in a profession in desperate search for status should take mentoring more seriously. The recommendation for the direct involvement of partnership colleges/universities in school district mentoring and induction programs should help ameliorate the situation reported in the DOE survey.

Mentoring should be mandated for all teachers in their first three years of employment and supported by grants from state and federal budgets. School districts working with the partnership colleges/universities should articulate clear mentoring skills and the criteria for evaluating the new teachers’ performance.

4) **Mediated Entry.** This recommendation is directed more at new teachers hired under the preliminary licensure. These are teachers who enter the classrooms as “licensed” educators without prior education courses, pedagogical skills, or any form of practicum (teaching practice) experience. The term “mediated entry” is taken from Ornstein and Levine and defined as “the practice of inducting persons into a profession through

No person should be allowed into the classroom without relevant prior formal training in pedagogical skills and classroom practices. Since the demand for teachers in certain shortage areas like mathematics and science compels school districts to hire career changers who hold the preliminary license, such school districts should be required to put in place a system that goes beyond induction. Mediated entry is a system that requires persons without formal training in pedagogy to receive structured and systematic supervision and guidance by designated, experienced teachers before transitioning into full and direct classroom teaching responsibilities. This program is a kind of clinical experience and on the job training that gives new teachers the needed familiarity with classroom realities, principles, and practices. Mediated entry is not a substitute for the post-baccalaureate Initial Licensure program. It is drawing upon the benefits of mentoring and induction to the fullest.

The following conditions are critical to the successful implementation of mediated entry through induction: One, assigning newly hired preliminary licensed teachers as apprentice teachers to designated experienced and successful classroom teachers. Two, requiring these classroom teachers to complete the mentoring and induction skills courses offered by the partnership colleges. Three, requiring the new teachers to attend weekly seminars in clinical settings, conducted in a team teaching setting by college faculty and school mentors, focused on reflective teaching skills. Thus, the mediated entry program strengthens the collaboration between the two partners involved in preservice preparation of first year teachers.

5) Making Content Knowledge More Relevant. As someone involved in preservice preparation programs for middle and secondary school teachers, I am familiar with the observation by many students that content courses taken in Liberal Arts and Science departments have little or no direct relevance to their preparation for curriculum frameworks implementation at their level of licensure. Hence the recommendation that preservice curriculum courses should focus on translating scholastic content knowledge to pedagogical knowledge and should involve the use of adjunct faculty drawn from the partnership schools. Prospective teachers need to have solid knowledge of subject matter in their areas of licensure. Therefore, the requirement for substantial content courses to the level of a major in undergraduate teacher preparation programs is fully supported. Multiple semester curriculum and methodology courses that would be accommodated in the five-year undergraduate Initial Licensure programs provide opportunities for exploring how to bridge the gap between scholastic knowledge and pedagogical knowledge. Education faculty may be in a better position to provide this bridge, with input from well-qualified experienced and successful classroom teachers in the role of adjunct faculty.

Conclusion

Teaching is an activity; an art informed by science. Performance of a teaching activity requires solid preparation guided by sound and tested principles and practices, assessed by carefully designed performance evaluation that focuses on assessment and reflection, done by supervisors, and peers. Educators’ entrance into the classroom and into the teaching profession should be based on possession of expert and specialized bodies of knowledge and skills, acquired through a lengthy (five year minimum) period of pre-entry preparation. The recommendations made herein require legislative support and positive fiscal response at the state and federal levels.

As a world leader, the United States can only maintain its edge in an increasingly competitive economy by training and retaining professional, competent and effective teachers.

References

10. See i) April 24, 2007 DOE Memorandum, op cit, p. 14 for representative titles of relevant publication studies from Judy F. in Kel's Literature Review on Partnerships.
11. DOE 2007 Survey reported in the April 24, 2007 Memorandum, op cit, p. 8.

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ePortfolios in Teacher Preparation Programs: An Evolving Practice
By Dawn Rodrigues
Massachusetts College of Liberal Arts

Teacher Education programs have been leaders in ePortfolio development in colleges and universities across the country, often because of increasing pressure to document program effectiveness, but also because of the power of ePortfolio development to enable students to reflect on their learning and because ePortfolios can help teachers develop necessary technology skills.

Are ePortfolios effective in helping preservice teachers prepare for their first year of teaching? Much depends on an individual institution's purposes for ePortfolio implementation and the approach it takes to ePortfolio use.

The Ideal

ePortfolios are more flexible than paper-based portfolios and allow teachers to develop multiple versions of their emerging collections of artifacts: an assessment ePortfolio, a showcase ePortfolio to share with prospective employers, and a teaching ePortfolio that they can continue to develop after they graduate. Ideally, ePortfolios facilitate reflective practice (Qi, J., and Vandersall, K., 2007). They also help teachers develop their strengths over time and serve as a basis for ongoing professional growth. (Rolheiser, C., & Schwartz, S. 2002).

The ideal ePortfolio development typically follows this process:

1. During the first education course or the first field experience, preservice teachers begin to accumulate evidence that they understand the various standards or frameworks. As the students progress from course to course, they add various “artifacts” (samples of work) such as units or lesson plans or videos of teaching moments to their ePortfolios. Often these artifacts are course projects. Along with the artifacts, the students submit a reflective statement about each artifact, noting how it meets specific standards and often noting ways the students succeeded or fell short of the mark.

2. An advisor reviews the budding ePortfolio and helps the preservice teachers add/revise/delete items. Also—and most importantly—the advisor monitors the students' artifacts and reflective statements to see if they represent growth over time—increasingly sophisticated lessons, for example, and an improved ability to recognize areas of strength and weakness.

3. During student teaching, the preservice teachers review and reflect on the ePortfolio as they develop understandings that had not been met before; they design lessons and units that are superior to those currently in the ePortfolio. With the advisor, the teacher candidates adjust the ePortfolio so that it is a record of their best work.

4. Finally, having collected multiple electronic examples of their work and created appropriate reflective comments, candidates learn how to adjust their ePortfolios for different audiences. They learn how to create different “views” or versions of their work, such as:

   a.) An assessment ePortfolio: This ePortfolio demonstrates ways that the standards have been met and includes reflective statements that explain how the artifact helped the teacher develop the target skills.

   b.) A showcase or career ePortfolio: This ePortfolio shows prospective employers a candidate's best work.

   c.) A teaching ePortfolio: This is one that can be used to document the candidate’s progress as a teacher and can even become the seed for a National Board for Certification Portfolio. This version of the ePortfolio can also serve as a file-cabinet of lesson plans that can be revised during teaching and shared with colleagues.

If all works as planned, everyone is happy—the state, the institution, the candidate. An ePortfolio process that provides preservice teachers with opportunities to grow over time and to reflect on their strengths can be enormously helpful; however, ePortfolio creation does not—in and of itself—improve the preparation of preservice teachers.

The Reality

Many institutions are focused solely on assessment ePortfolios, and implement ePortfolios solely as “assessment systems,” designed to collect data, not to help student teachers develop their skills. (Gibson & Barrett, 2003; Barrett, 2004; Batson, 2002). To accommodate institutional
needs, various companies have designed ePortfolio systems that both streamline and restrict the ePortfolio collection and assessment process (e.g. TaskStream, iWebfolio). These systems have increased in flexibility in recent years, but critics note that they make it too easy to focus only on data collection (Royce 2006).

In other cases, ePortfolio focus is largely on technology. At the University of Missouri, St. Louis, for example, the goals are “to prepare high quality teacher candidates, to examine if the technology is important in their learning and improve student technology skills” (Song, K., Scordias, M., Huang, C. & Hoagland, C., 2004). While technology greatly facilitates the digital archiving of student work, to focus on technology in and of itself loses sight of the greater goal of portfolio development: teacher self-reflection and professional growth.

The reality is that most institutions are only beginning to implement ePortfolios and have modest ePortfolio systems or none at all. For example, at Boston College, student teachers keep reflective ePortfolios that are supplemented by the assessment forms that must be submitted to the Department of Education. At Salem State College, students keep reflection ePortfolios and evidence binders during their student teaching experience as a way of documenting that they have met the Massachusetts teaching standards as well as the teacher education conceptual framework. (http://www.salemstate.edu/education/student_teaching_ePortfolio.php). Massachusetts College of Liberal Arts has begun a pilot ePortfolio project that provides teacher candidates with experience using standard Web Page software to design a ePortfolio that can be revised and updated after the student teaching “assessment” version of the ePortfolio is completed (See sample ePortfolios at http://www.mcla.edu/ePortfolio).

Conclusion

ePortfolio implementation requires balancing a variety of purposes and should support the full range of purposes and expectations of students in teacher education programs. ePortfolios can be helpful to preservice teachers if they:

• Serve teaching and learning purposes, not merely assessment expectations; if ePortfolios are vehicles for authentic assessment, teacher-candidates will recognize their value in their future preK-12 classrooms.

• Provide preservice teachers with opportunities to develop useful technology skills. As a rule, systems that allow teachers to use authentic tools such as web page software or PowerPoint are more valuable to the candidate than ePortfolios that merely enable teachers to upload their artifacts. As Wëtzel and Strudler (2006) have discovered, students frequently learned “new technology skills as they built their Electronic Portfolios”—especially in programs that require students to create their own Web pages rather than to use a pre-built ePortfolio system (such as TaskStream or iWebfolio).

• Encourage preservice teachers to view their teacher education ePortfolios as the starting point for an ever-expanding ePortfolio that they can use as a teaching ePortfolio throughout their career.

References


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