AILACTE Journal

The Journal of the Association
Of Independent Liberal Arts Colleges
Of Teacher Education

Volume V
Fall 2008

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A New Vision for the Future: Identifying Common Goals in a Liberal Arts Core and Teacher Education

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Abstract

Teacher preparation in the Commonwealth of Virginia requires numerous competencies. Faced with the challenges of creating a new general education core, faculty at Emory & Henry College exploited the synergies of the new program, teacher preparation competency requirements and the literature on effective teachers to reinforce a 172-year-old liberal arts tradition. The paper details how faculty identified and intends to implement those synergies.

Introduction

At any given time, a good number of ALACTE schools may find themselves revising their general education curricula. As they do so, they must consider the impact such revisions always have on the teacher preparation programs of their institutions—a process that is sometimes badly handled, we suspect, although such knowledge is anecdotal. Still, the creation of a new general education curriculum is a process that AILACTE institutions should embrace. After all, we believe that a significant strength of AILACTE schools is how our

commitment to a liberal arts core, with the depth provided by a solid academic major in a discipline of choice, empowers and liberates our students to think in new ways about the world in which we live. Thus, aligning teacher preparation curricula with a new general education curriculum is not just a matter of accounting for change but of defining a new vision for the future.

Background

Emory & Henry College is a 172-year-old institution in the Great Valley of Virginia 25 miles north of the Tennessee border. It has been training teachers since its inception in the liberal arts tradition. Upon deciding to revamp and reinvigorate that tradition, faculty faced the challenge of designing a general education core that would enhance teacher preparation programs rather than simply impose more requirements. The answer was twofold. First, we identified key proficiencies in the general education core that were also key competencies for teachers. Second, we created a general education program that facilitates the characteristics of effective teachers (Stronge, 2002). In the process, faculty reassured themselves of the value of a liberal arts education for future teachers.

Once upon a time a liberal arts education *was* the preparation for teachers. Discussing the program at Emory & Henry, the school archivist notes,

> Although one need not have attended college (much less possess a baccalaureate degree) in order to teach in the 19th century, enrolling at a liberal arts college—even for a few years—proved to be an excellent preparation for life in the classroom. Anyone who could absorb the standard curriculum at a liberal arts college, which required study in the Latin and Greek languages, rhetoric, grammar, logic, algebra, geometry, moral philosophy and public speaking, certainly had the knowledge to be an effective teacher. (Vejnar, 2003)

Obviously, such education offered the knowledge but not necessarily the skills to be a good teacher. Later Emory & Henry joined the ranks of schools providing professional

teacher education; but the connection between good teacher preparation and the liberal arts core has remained.

Since 1977 Emory & Henry has had a thorough and developmental general education core. In 1981, the school was touted nationally for the design of its program. In *Designing Undergraduate Education: A Systematic Guide,* Bergquist, et al., noted that, "In some instances, a college or university has retained the traditional concentration/general education/elective elements . . ., but has modified or expanded on these elements, giving them new life and relevance for the contemporary student." The authors detailed programs at Emory & Henry College and Ottawa University in Kansas (Bergquist, et al., 1981, p. 107).

The program that was relevant for students in the 1980s will phase out beginning in this school year. In that program, students take common syllabus courses in Western Tradition and Great Books and choose from a variety of courses meeting objectives for Ethical Inquiry in the junior year and Global Studies in the senior year. In addition, students meet requirements in English, computer science, speech, mathematics and religion, along with distribution requirements—a menu system—in humanities, social sciences and natural sciences. The various requirements constitute up to 38 hours of the typical 120 to 124 hours required for graduation.

In February of 2006, a faculty committee began to study the aging program and identified problems with appropriate staffing, consistency of goals and proper assessment. Although the program was designed to produce well-rounded liberal arts graduates, there was no solid evidence that it did so. Faculty focus groups identified holes in student skill sets, particularly in writing and critical thinking. Other faculty identified the need for quantitative literacy—which became our Quality Enhancement Plan for our accrediting agency. Even though the Education Division was consulted, almost nothing in the common content courses specifically aided teacher education students.

The General Education Review Committee talked to faculty, students and alums. Its members looked at programs from over 100 other liberal arts schools, identifying ways in which those schools had built on the innovations pioneered by schools much like Emory & Henry. The group decided that the time

was ripe to rethink the general education program from the ground up.

The New Core Curriculum

After working intensely over the summer of 2007, the group unveiled a new plan to the rest of the faculty in August of 2007. The new core curriculum emphasizes integrative learning, five proficiencies in particular and a renewed concern with citizenship (at a school named in part for patriot Patrick Henry). The core classes include an ambitious academically oriented first-year/first-semester experience, two common content courses that emphasize important questions and thinkers throughout history, a seminar course on great works in context and a senior capstone course that also will be multidisciplinary and will result in "white paper" production.

Students will be introduced to the five central proficiencies, writing, speaking (both stand-up speaking and small group communication), quantitative literacy, ethical reasoning and critical thinking, in the core courses. They will then have to take at least one course in the disciplinary curriculum that is designated intensive in each of those proficiencies.

To develop even more breadth in the program, students have to take one course in each of four Modes of Inquiry. These are disciplinary courses that meet the objectives for Understanding the Individual and Society, Understanding the Natural World, Artistic Expression and Interpreting Texts.

Religion, writing and math requirements remain. In addition, the College is returning to the old tradition of requiring a certain level of familiarity (two college-level classes) with a foreign language. That requirement is part of an increased emphasis on citizenship. The curriculum also encourages both domestic and foreign travel. In another return to older traditions, the curriculum requires a one-hour wellness course and two physical activity courses.

The new core curriculum could mean as many as 53 hours for students who come in with no foreign language background. An immediate question was how that number would impact departmental/disciplinary requirements. No combination seemed more problematic than the teacher preparation programs, elementary education preparation in particular. Stu-

dents in elementary education typically require 139 hours to graduate while students in other fields require only 124 hours. Clearly, a new general education core that would require more hours was a matter of concern. In fact, such an ambitious core curriculum raised the question of the connection with the disciplinary curricula.

A faculty curriculum committee looked at the plan from October 2007 to March 2008, asking questions about resources, staffing and the impact on majors. All of those questions boiled down to the matter of shifting the emphasis of the liberal arts education from disciplines to the core. By the time the process had finished, faculty were repeating to each other that that was a false dichotomy: the core enhances the disciplines—and in no way more so than in the connection between the core curriculum and teacher preparation.

Connecting to Teacher Competencies

An important component is the parallel concern with proficiencies in the core curriculum and competencies in teacher preparation. Currently, certain courses in the disciplines and in the existing general education program fulfill Commonwealth of Virginia certification requirements for competencies. The emphasis on proficiencies in the new program relieves the teacher preparation program of relying on an array of *stand-alone courses* to fulfill requirements. The state's competencies can be met by students picking up proficiencies in a series of courses offered for both their liberal-arts, integrative-learning value and for the skills they encourage (and assess).

For instance, the new program has a quantitative literacy requirement that relieves the teacher preparation program of the need to require a particular math class. The addition of oral communication as a proficiency that will be addressed in several core curriculum courses as well as in disciplinary courses allows the teacher preparation program to remove a stand-alone speech class requirement. The state's requirement of both a life science and a physical science experience may be met entirely through core curriculum courses, provided those courses develop in appropriate ways. In fact, the emphasis on proficiencies, as well as topics throughout the new curriculum,

will improve education students' overall skill set and academic abilities in ways that no one class could achieve. Appendix A offers a schematic look at the new program; asterisks indicate points in the program in which the proficiencies and topics connect to and reinforce the state-mandated competencies.

In all the work on the core curriculum, faculty tried to stay focused on our image of an Emory & Henry graduate. We debated, settled on, published and then debated again the mandate that an Emory & Henry graduate should know thyself**,** connect, serve, explore, experiment, create, quantify, communicate, apply and be strong. The fuller description of those goals is presented in Appendix B. Those goals were developed by faculty, including education faculty, who want their majors to be as well-educated and well-rounded as possible. The payoff to each department is clear.

Qualities of Effective Teachers

Additionally, early in the planning process we considered the ways general education experiences could strengthen the development of teacher preparation students. To guide our analysis and subsequent course designs, we reviewed the professional literature to learn more about qualities of effective teachers.

In our review of the literature, we found that a teacher's oral and written communication skills play an important role in their ability to facilitate student learning (Levy, Wubbels, & Brekelmans, 1992). According to Stronge (2002), "Students taught by teachers with greater verbal ability learn more than those taught by teachers with lower verbal ability" (p. 4). Because the new core requires faculty from departments across the College to teach in the common content courses and offer writing and communication intensive courses in their disciplines, we will have faculty taking workshops on being better teachers of writing and communication. Teacher preparation students accordingly will take even more courses with those emphases.

Consistent findings throughout the literature assert that effective teachers have strong content knowledge. In particular, studies show there is a positive relationship between content

area knowledge and students' performances in math and science classes (Darling-Hammond & Thoreson, 2001; Stronge, 2002; Traina, 1999). The new core is far stronger than the previous general education program in that students are required to demonstrate quantitative literacy and then exercise it in disciplinary classes far removed from mathematics. In addition, one of the foundational courses emphasizes empirical thinking and is drawing a large number of scientists and social scientists as instructors.

Effective teachers are organized, efficient planners, problem solvers and use time effectively (Cawelti, 1999). Problem-solving will be emphasized from the first core course onward. The use of specific critical thinking skills will promote efficiency and problem-solving skills.

Effective teachers recognize the differences between individuals and accommodate those differences (Peart, & Campbell, 1999; Stronge, 2002). We think that citizenship is, in its essence, a matter of being sensitive to differences between individuals. The citizenship-enhancing parts of the core curriculum—including travel at home and abroad—should offer students a hands-on approach to studying differences. With these experiences fresh in the mind, teacher preparation students should be much better equipped to understand methods designed to positively affect their classroom decision-making for students with differences.

Effective teachers are individuals who are willing to serve conscientiously. "The importance of conscientious reflection and involvement in all aspects of teaching cannot be overemphasized in defining the effective teacher" (Stronge, 2002, p. 63). This is, of course, an element of citizenship as well. Emory & Henry has a strong service program that will be utilized in meeting the injunction to "serve."

Education faculty see an additional benefit of the program. In order to help shape the ideal graduate, many faculty will be challenged to teach in different ways and in different settings beyond traditional methods and assignments. The benefit to students is not only in the subject matter. Education students, in particular, benefit from watching faculty in a variety of disciplines intentionally engage in integrative and active teaching. They will also see faculty work on ways to engage students in becoming responsible for their own learning.

Specifically, the core curriculum encourages faculty to engage students in new ways by asking more of them on one hand and offering more freedom to choose directions of study on the other. While our teacher/graduates may be asked to teach more narrowly to standardized tests, they will have a background in broader learning patterns.

Prospective teachers will also benefit from the language preparation. In our part of the country as in many others, teachers who can speak some Spanish will have an advantage in getting hired. The new language requirement, one year of a language, now allows any of our students in our elementary tracks—Interdisciplinary English, Interdisciplinary Social Studies and Interdisciplinary Mathematics—given the other reading and linguistic courses they must take, to add an K-12 ESL endorsement by taking only one additional course above their current program requirements, a course that has now been put online by one of our professors. Also, students in our secondary/English track can also add this endorsement if they include an additional diagnostic reading class in their curriculum. This, then, is only a two-course addition, which is very easy for our secondary/English students to add to their programs.

Conclusion

It would have been an easy response for teacher educators, as well as faculty in other disciplines, to insist on doing business as usual. But by keeping our focus on the graduate, be he or she a teacher or an athletic trainer or a business major, we have created a program that benefits each student in his or her major as well as in life-long learning. By coordinating proficiencies in general education with competencies in teacher preparation, we have mined the best of the liberal arts tradition—with the benefits going not only to our own students but to all those who will be taught by our students.

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Appendix A: Excellent at the Core

Year	Fall	Spring	Other courses completed by end of ... year	Recommended
First Year	Transitions I (WC, OC, QL, ER, CT)*	Foundations I (WC, OC, CT)* Transitions II	Lifetime Wellness English 101*	Artistic Expression (MoI)* Pass technology test or course; pass Quantitative Literacy test or course Start foreign language*
Sophomore	Foundations II (QL, OC, ER, CT)*	GWIC may be taken (WC, CT)*	Math Requirement*	Interpreting Texts (MoI)* Understanding Individual and Society (MoI)* Understanding Natural World (MoI)*
Junior	GWIC may be taken (WC, CT)*	GWIC may be taken (WC, CT)*	Intensive classes* (WC, QL, OC, ER, CT)*	Emory Abroad
Senior	Connections may be taken (all proficiencies)*	Connections may be taken (all proficiencies)*	Religious Studies; Two activity courses	

- Asterisks indicate points in the program in which the proficiencies and topics connect to and reinforce the state-mandated competencies.

Proficiencies are WC: Written Communication; OC: Oral Communication; CT: Critical Thinking; QL: Quantitative Literacy; ER: Ethical Reasoning. Transitions I, Great Works in Context (GWIC) and Connections are seminar courses in which students choose from a variety of topics. Foundations I and Foundations II are common syllabus classes emphasizing big questions and big ideas across time. The Modes of Inquiry (MoI) encourage breadth among disciplinary courses that fit a particular way of thinking.

Appendix B: General Education Goals

Goals derived from 2006 Fall Faculty Conference and from Student Feedback (revised 3/20/2007)

A liberally educated graduate of Emory & Henry College should:

1. **Know Thyself:** Critically examine one's own beliefs; strive for consistency in personal ethics; be aware of the consequences of political and ethical positions.
2. **Connect:** Understand and appreciate diversity in cultures, politics and belief systems; comprehend and analyze the meaning of the local, national and global; develop proficiency in a foreign language; broaden one's perspective through regional, national and international travel.
3. **Serve:** Appreciate the role of service in the community; be a responsible citizen of the state and nation; be cognizant of the impact of one's actions on others.
4. **Explore:** Be able to engage in a variety of disciplines as well as understand their purposes, interrelationships and contributions to human knowledge; analyze and interpret significant literary texts as they represent the variety of individual, social and cultural contexts of human experience.
5. **Experiment**: Develop knowledge about natural science and the experimental process; learn and apply the scientific method.
6. **Create:** Value visual and performing arts as forms of human expression; understand and interpret art through creation or analysis.
7. **Quantify:** Interpret and use numbers and mathematics confidently, ethically and appropriately; apply numbers to real life experience; appreciate quantitative reasoning as a tool of intellectual inquiry and communication.
8. **Communicate:** Generate original ideas and apply the methods of analysis, synthesis and reason; create clear and persuasive oral and written arguments; communicate effectively in individual and group settings.
9. **Apply**: Use applied learning experiences such as laboratories, internships, formal presentations and critical thinking exercises to further knowledge; realize the continuity

between past and present events; use information and technologies proficiently and appropriately.

10. **Be Strong**: Value and pursue the benefits of lifelong physical fitness, balance in work and recreation and psychological well-being.

A System-Wide Approach to Culturally Responsive Teacher Preparation: The Value of Intensive Early Program Field Experiences

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Abstract

The school-aged population continues to diversify, yet the student body at small liberal arts teacher preparation programs generally does not. To help prepare our socioculturally homogeneous students to teach a more diverse student body, we developed a three-tiered approach that includes a diversity model integrated across the curriculum, an intensive year-long field experience for all sophomores and multiple means of assessment. The objective was to broaden our students' views of diversity and to expand their perspectives on teaching for diversity. Internal and external reviews of our new approach demonstrated that the objective was met. We found that the intensive field experience was the most valuable aspect of the program, with the unintended consequence that the content of subsequent methods classes was improved. We learned that we need to continue to improve in the areas of placement selection, curriculum alignment, performance assessment and guided learning/inquiry.

Background

It has been well established that the nation's PK-12 student population is becoming increasingly diverse and will continue diversifying for the foreseeable future. The U.S. Census Bureau (2004) estimates that the overall U.S. white, non-Hispanic population will move from its 2000 level of 69.5% to 50% by 2050, an increase that will be mirrored by the school-aged population. Unfortunately, teacher diversity is less pronounced. An NEA report (2004) identified 90% of public school teachers as white, non-Hispanic, while an analysis of PEDS data (Fox, 2008) indicates that approximately 80% of preservice teacher candidates are white, non-Hispanic. While data is not available to verify, an assumption can be made that small, private liberal arts are similar to, if not less diverse in their preservice student body, than the national higher education averages as a whole.

The demographics identified above, coupled with an appropriately heightened awareness of the need to address learner diversity through state and federal policy initiatives such as No Child Left Behind (NCLB), present a strong challenge to small, private liberal arts colleges in the area of preparing teacher candidates to be culturally competent teachers. While efforts to diversify the preservice student body through recruitment programs such as urban teacher academies (Berrigan, Schwartz and McCadden, 2000) must continue and intensify, the question becomes at some level one of determining the most appropriate and effective means for preparing white, non-Hispanic preservice teachers to teach effectively in diverse classrooms. Accordingly, various efforts have been made to change course syllabi and reading lists, change methods and practicum placements and experiences, introduce service learning requirements, introduce new instructional techniques and provide professional development to practicing teachers (see, for example, Banks and Banks, 2001, Howard, 2006; Ladson-Billings, 2001; 1997, Nieto and Bode, 2007).

At a slower pace, there has been an increasing emphasis on the assessment of candidates' field-based performance as culturally responsive teachers. Once programs are developed or modifications made, there is a natural progression to the assessment of those programs and their objectives. Which

efforts work best? Are some better suited to a particular point in a teacher preparation program than others? How do we know our efforts are effective? The present paper will document the efforts made at one small, private liberal arts college to address the cultural competence challenge within its student body across the teacher preparation program and convey the results of those efforts to peer institutions, the membership of AILACTE.

Local Context

Salve Regina University is a small Catholic liberal arts college in Newport, Rhode Island. Our education programs in early childhood, elementary/special and secondary education graduate an average of 80 students per year. Our student body is predominantly white, non-Hispanic, female and upper-middle class. Newport is a small 'city' of approximately 27,000 people. In Rhode Island it is considered one of the 5 core urban centers. Its public school student body consists of approximately 2,282 students; 49% of whom are eligible for subsidized lunch. Fifty-three percent are white, non-Hispanic, 28% African-American, 14% Hispanic, 3% Native American and 2% Asian American (RIDE, 2008).

Newport, then, provides a rich opportunity for cross-cultural learning for our preservice teachers. However, prior to 2005 we did not programmatically address the issue of culturally competent pedagogy in our curriculum, nor did we have a field placement system in place where all students were guaranteed at least one placement in Newport schools. Any skills and dispositions developed in relation to teaching for diversity were coincidental rather than purposive; for example, if some students developed skills and dispositions by being placed in a diverse classroom for their student teaching assignment that was wonderful, but it was not an overt objective of field placements.

Redefining our Approach to Teacher Preparation

Beginning in 2005, our education faculty (13 members across 4 programs) engaged in the process of reviewing and redefining our approach to diversity. As we progressed, our

aim in addressing diversity and cultural competence in our teacher preparation program took on three aspects: 1) the development of a system-wide approach that is integrated across the curriculum, rather than isolated in a single program or course; 2) providing sustained, year-long experiential learning for all education sophomores, intended to both challenge preconceived notions of diverse learners and provide academic support to students and schools; and 3) the development of multiple means of assessing candidate performance as culturally responsive teachers, again in a systemic rather than isolated way. Each aspect is discussed below.

A System-Wide Approach

The catalyst for this redefinition has been our participation in a statewide U.S. Department of Education TQE (Teacher Quality Enhancement) grant. As part of this TQE grant our faculty collectively studied various approaches to culturally responsive pedagogy and decided, through consensus, to adopt and adapt the model developed by Villegas and Lucas (2002). We decided upon this model because it lent itself to the developmental approach to teacher preparation that is the basis of our program. The Villegas/Lucas model has 6 strands (see Table 1, below). We divided the strands into what we considered to be developmentally appropriate clusters and worked to infuse the strands into the appropriate courses at each developmental level.

Table 1: *Villegas and Lucas (2002) Culturally Responsive Teaching Strands*

Strand	**Emphasis in Our Program**
1) Gaining sociocultural consciousness; an awareness that one's worldview is not universal but is profoundly shaped by one's life experiences.	Second/sophomore year--Foundational courses
2) Developing and affirming attitude towards students from culturally diverse backgrounds	Second/sophomore year--Foundational courses
3) Developing a commitment to act as agents of change	Third/Junior year Methods courses

4) Understanding the constructivist foundations of culturally responsive teaching	Third/Junior year Methods courses
5) Learning about students and their communities	Fourth/Senior year Methods/Student Teaching
6) Cultivating culturally responsive teaching practices	Fourth/Senior year Methods/Student Teaching

Villegas visited our campus in May 2006 to help us with this process. We refined the alignment of the strands to our curriculum and developed or refined assessments in the appropriate courses according to this alignment. Our purpose was to infuse issues of diversity across the curriculum so that teaching for diversity could not be bracketed as something that only applies in certain situations with certain students, but in fact, defines good teaching. Faculty introduced assignments such as classroom observation reports, student and family rights analyses, classroom scenario analyses and case study development to link the public school and university classrooms together.

Sustained Experiential Learning

One of the hallmarks of teacher preparation at Salve Regina has always been an experiential approach to teacher development. We believe strongly that guided experience linked to university coursework is the best model for socialization to the profession. Prior to 2005, however, intensive field experiences did not begin until junior- or third-year methods courses. At Salve Regina preservice students do not begin taking their education coursework until sophomore year. Courses at this level are foundational: introduction to education, child/ adolescent development, etc. Over the years we found that students were coming to us with increasingly strong practical backgrounds in education. In high school they had engaged in such activities as working in summer camps, teaching in after school programs and assisting teachers through pre-teaching programs. It made no sense to continue making them wait until junior year to enter public school classrooms after experiences such as these. We saw this as an opportunity to provide a

quality field experience for sophomores in a way that would address the first two strands of the Villegas & Lucas culturally responsive teaching model.

We decided, then, to develop a year-long experiential program for sophomores. We partnered with Newport County Headstart for our early childhood program, a local Newport community agency that runs a literacy support program for our elementary and special education programs, and the Newport Community School, a middle/high school full service program, for our secondary program. The strongest partnership that developed of these three was with the elementary level literacy program – BOLD (Books Open Life's Doors). The key to the success of this partnership has been the presence of a dedicated full-time program administrator who has acted as the placement director and problem solver, and professional development provided for the program.

Our sophomores in the early childhood and elementary/special education programs were partnered with teachers and committed to working a minimum of one hour per week for the entire academic year in their partner teacher's classroom. In secondary education the sophomores were matched with time blocks rather than teachers due to the lack of fit between rotating block schedules and our own course schedules, but the same hourly time commitment was set. We linked the field experiences to our foundational courses so that the experiences in the public school classroom would be guided and shaped by the readings and assignments in the university classroom.

The goals of this intensive experiential learning requirement were to a) provide a meaningful service to our local school partners, one that satisfied a need defined by them rather than by us; b) provide real-life illustrations of and contexts for some of the more theoretical aspects of the preservice foundational courses; and c) to provide an opportunity for our preservice teachers to develop authentic, extended relationships with students different from themselves in an effort to broaden their perspectives on diversity, reduce the sense of diverse students as 'others' and to combat media-fed stereotypes of diverse urban students.

The last goal was and is the most important one. We wanted to provide meaningful service to the schools; but we also wanted to disrupt the comfort zones and prior conceptions

of our sophomores, many of whom had not had prior experience in urban, or even marginally diverse, school settings. We felt that close and extended personal contact would provide a much better means of accomplishing this latter goal than on-campus classroom work (Banks, 2005; Education Alliance, 2007). Late adolescent and early adult development literature also suggests (Lee, 2003; Kolb, 1984) that guided experience is more effective than classroom-based learning for this age group.

Multiple Means of Assessment

The various teacher preparation programs in Rhode Island each follow a similar three-point assessment system for teacher candidates; assessment at admission to program, upon completion of all methods coursework and upon completion of student teaching. At Salve Regina, teacher candidates compile a portfolio for each point of the system. Each portfolio addresses candidates' developmental progress on several of the Rhode Island Beginning Teacher Standards (RIBTS), which are a set of 11 standards modeled after the INTASC standards. The portfolios each consist of data such as grade point averages, Praxis test scores and transcripts, as well as a set of writing prompts connected to the RIBTS. Each candidate compiles a portfolio at each of the three assessment points. The portfolio is reviewed by a faculty member who then, often with the help of a cooperating teacher, interviews the student using standardized questions that are linked to the writing prompts.

We worked for two years discussing, developing and piloting as a faculty various instruments to blend into our portfolio assessment system to assess culturally responsive student experiences. We took two approaches to assessment: a) the development of a professional dispositions observational scale and b) the development of reflective writing prompts. We decided to incorporate both into the existing portfolio system because it would be consistent with our 'diversity across the curriculum' approach to weave diversity into the fabric of our assessment system. The scale and prompts also aligned with our developmental approach to teacher preparation in that the

assessments at each level extend the assessments at the prior levels. Table 2, below, offers an example of this approach.

Table 2. *Developmental Approach to Use of Dispositional Scale*

Assessment Point	**Use of Professional Dispositions Scale**
Admission	Self-Assessment by preservice teacher
Completion of Methods	Self-Assessment by preservice teacher Assessment by University supervisor *and/or* cooperating teacher
Licensure (completion of student teaching)	Self-Assessment by preservice teacher Assessment by university supervisor *and* cooperating teacher

The professional dispositions scale we developed consisted of a set of 25 expected observable behaviors measured on a Likert scale, ranging from items related to punctuality, planning and manner of dress to items related to respect for cultural differences, respect of students and incorporating cultural knowledge into instruction. (This scale can be found at www.salve.edu/departments/edc/formlibrary.cfm, as can complete materials from our university's assessment system.) We learned through piloting this scale that it is lacking as a tool for assessing cultural competence and culturally responsive teaching. As part of the state's TQE grant, a more comprehensive observational scale is being jointly developed by all the teacher preparation programs. Salve Regina will adopt this scale when it is completed and fully tested. We did determine, however, that the combination of self-assessment and observation by professional educators is a valuable approach to the use of scales, as it allowed for incredibly insightful conversations to occur during portfolio interviewing around the differences between how preservice teachers reflect on their own performance and how professional educators view that same performance.

As we continued with the process, we realized that we wanted to assess deeper changes in disposition, in preservice teachers' perspective and that reflective writing prompts were, for us, a better means of collecting such data than observational scales or attitudinal scales. We therefore developed a set of reflective writing prompts for our existing portfolio assessment system to collect richer qualitative data on our students' expe-

riences as teachers for diversity at each of the three assessment points (see Table 3, below).

Table 3. *Diversity Writing Prompts Incorporated into the Portfolio System*

Assessment Point	**Diversity Writing Prompt**
Admission Portfolio	Briefly describe your service learning experiences linked to your education courses… What have you learned about successful approaches to teaching diverse learners? What have you learned about the role of community agencies in supporting students' learning needs?
Completion of Methods Portfolio	Identify your experiences with diversity this year in your field placements. What instructional techniques have you learned to enhance diverse learners' school success? What connections were you able to make between subject matter and students' experiences?
Licensure Portfolio	In what ways were you able to interact with parents, colleagues, school staff, administration and community agencies during your student teaching semester? In what ways did these partners help you in your efforts to learn about your students and accommodate their diverse learning needs and styles? What will you do next year in your own classroom to collaborate with other adults in the effort to learn about your students' learning contexts and needs?

Discussion

We will discuss the three aspects of our process in a slightly different order than outlined above, due to the significance of our findings related to experiential learning.

A System-Wide Approach

We have found that the infusion of the Villegas/Lucas culturally responsive pedagogy model across our curriculum has been a powerful organizing and focusing tool. Faculty have integrated assignments into their courses that specifically link to one or more of the six strands, and we have developed a

matrix that shows how all strands are addressed in each program. This has become a useful guide for further curriculum discussions and revisions. We designed a series of posters that we mounted on the walls of our education classrooms/labs so that faculty and students could make reference to the strands during the course of class meetings. The model has also served to provide a common language for both faculty and students to discuss and explore what good teaching is and how one develops into that good teacher.

The department is now contemplating a similar curriculum integration project around technology standards. Our feeling is that the process that many education programs, including our own, followed in the past, that of adding new courses for each new teacher preparation concept or mandate, does nothing but splinter or compartmentalize new teacher development and socialization, which really should be more holistic. We found that this compartmentalized approach had made it difficult for our preservice teachers to "put it all together" in their student teaching experience. The integrated, more holistic approach we are now using shows the tendency to help them thrive more successfully during student teaching and, hopefully, beyond.

Multiple Means of Assessment

The data produced by our preservice teachers through their responses to the professional dispositions scale was useful for program improvement more for what it told us about student awareness of field expectations and for what it told us about the value of triangulating self-assessment with external assessment than as an assessment of cultural competence. This value was found not through statistical analysis of the scale data, which provided some interesting but non-significant results, but through our interviewing of our candidates about the professional dispositions scale as part of the portfolio review process. We found that we had been remiss in sensitizing them to issues of professional comportment in school settings, and, what their host teachers and students would expect of them regarding professional behavior as preservice teachers in school settings. We also found, as mentioned earlier in this paper, that our candidates' views of themselves as profession-

als often differed greatly from our own perceptions of them, based on field observations. Some candidates felt they were acting professionally when indeed they were not based on our field observations using the scale. This has indicated a need to focus some attention on helping our preservice teacher candidates gain a better sense of self-awareness and their presentation of self in schools, as well as the need to focus more attention on the definition and development of professional dispositions in our programs.

Sustained Experiential Learning

Perhaps most importantly, we found that the intensive yearlong field experience we developed for the sophomore foundational year has made a profound impact on our preservice teachers and their development process. All three of our goals were met through the field experiences. First, our partners in the Newport Public Schools are extremely pleased with the service our students provide as they are truly helping their partner teachers achieve their own educational and strategic goals. The value of this cannot be underestimated at a time when public schools are under a great deal of accountability pressure and can interpret university students in their classrooms as a distraction at best. In fact, the partnership with the BOLD literacy program was recognized by the Rhode Island Office of Higher Education as a model partnership in March, 2008, through its Partnerships for Success program (RIOHE, 2008).

Second, our goal of breathing life into foundational courses and topics through connecting them to real teaching situations and contexts proved successful, based on preservice teacher writing prompt responses and changes to faculty syllabi. Students commented on having a better understanding of child/adolescent development and the applications of learning theories as a result of their experiences and had a better understanding of the role of economics and policy on student achievement. Faculty, for their part, introduced more journaling and classroom-based assignments, replacing prior abstract or hypothetical assignments.

Additionally, we found a key unanticipated benefit of the extended field experience on our advanced courses. While we planned for our preservice teachers to develop stronger relationships with public school students as a way to break down preconceived notions and bring child development theory to life, what we did not anticipate was the extent of professional development that occurred through this experience. The school teachers who took on our preservice teachers maximized the opportunity provided them by teaching our sophomores aspects of classroom organization, management, lesson planning and assessment that are normally introduced during junior year methods placements. Consequently, when our sophomores entered these junior-level methods courses, their learning curve was shortened, as was their classroom assimilation time. Course instructors found that the juniors could 'hit the ground running' in their methods placements and that much more advanced content could be introduced into the courses.

Our third goal, disrupting comfort zones and challenging preconceived notions, was achieved dramatically. Through their portfolio writing prompts, preservice teachers conveyed the impact of the duration and quality of the experience. One student's experience summarizes the impact felt widely by her peers: "I come from a small town in the suburbs of Connecticut, and had never seen such a diverse looking group of students in one place…I learned that in order to maximize learning opportunities teachers must gain knowledge of the cultures within their classroom and adapt lesson plans that reflect a variety of communication strategies [especially] for children who come from homes and cultures that do not closely correspond to the curricula of the school."

Conclusion

The preservice teacher student body at Salve Regina University is not unlike that of many, if not most, small Catholic liberal arts schools. Our students are predominantly white, female and upper-middle class. Prior to coming to us they have had some very rich experiences through travel, community service projects, internships and employment in educational settings. However, they have not, generally, had a great

deal of experience working in a sustained, authentic way in socioeconomically or socioculturally diverse educational settings.

Our university was visited by a state program approval team in March of 2007. Rhode Island's program approval process measures program on six standards, the fourth relating to diversity. Based on the work described in this paper, we received the highest rating possible (On Standard) for diversity and were the first teacher preparation program in the state to meet this standard since the program approval process was revised in 2001. The visiting team noted particularly the power of the early intensive field experiences and the quality of the reflective prompts. However, they also noted that we still have much work to do to bring the model we have developed to full fruition (RIDE, 2007). We will continue to review and revise our approach to addressing the challenge of how to best prepare our preservice teachers to work effectively with all children to help them reach their and their families' educational goals.

Infusing culturally responsive practices across the curriculum has been helpful in providing a framework for understanding and for practice for both our faculty and students. It has helped develop a common language and has drawn attention to a stronger and broader definition of what constitutes good teaching. Our assessment of whether or not our efforts have been successful needs to continue to be refined. Attitudinal scales are less useful than observational scales in that it is more authentic or honest to observe teaching behaviors than to ask abstractly about beliefs or attitudes. Reflective writing prompts are more effective in that they allow a window into a preservice teacher's personal praxis—into their understanding of what they are doing and learning in a classroom and whether or not they are learning how to turn their attitudes into action. Reflective writing, when coupled with classroom observation, is more effective still.

We have found that the single most effective thing we can do to help our students develop cultural competency is to place them in diverse classrooms as early and as often as possible, and, for as long a duration as possible. This allows for the development of relationships that can be transformative in breaking down and breaking through preconceived notions.

Of course, spending extended periods of time in diverse classrooms is fraught with danger too. In order for the extended field experiences to be maximized as a teaching and learning opportunity we have learned that we need to refine our approach to four key areas: placement, alignment, assessment and, most importantly, guidance.

Placement: We need to ensure that our students are being matched, as much as possible, with teachers who are culturally responsive teachers themselves so that positive rather than negative socialization occurs. Ongoing joint professional development for our faculty and our cooperating teachers is needed in this area.

Alignment: We need to ensure that our curriculum is fully interconnected with the extended field experience. This can prove difficult when one is trying to serve needs identified by the schools rather than by the university as the needs of the schools don't always match up with the content of a particular university course. Not linking the sophomore field experience to any one particular class, but rather be something from which all foundational classes can draw, has helped in this regard.

Assessment: Our conclusion, based on our work to date, is that we should be taking a developmental approach to assessment by measuring change over time and that we should be assessing real-time teaching behaviors using a combination of external observation, self assessment and reflection on practice.

Guidance: The instructor needs to have a window into the field experience to provide proper guidance for the students in processing what they are experiencing. Journaling and discussion are useful methods for providing guidance by proxy. Having an instructor make field observations is a better method but not always practicable. This area is the most important one to address, as the value of our field experiences hinges on the quality of guided learning utilized by faculty and supervisors. We believe that using a guided learning/inquiry model, such as that articulated by Lee (2004), would provide our faculty and students with an organizational framework and language that would enhance the success of the field experiences across our curriculum, in a similar fashion to the success of the Villegas/Lucas model in enhancing our approach to teaching for diversity.

The need to increase new teachers' skill sets in and dispositions toward teaching in diverse schools and classrooms will persist into the foreseeable future. It is our responsibility to work with our teacher preparation student cohorts to achieve this goal. In our work thus far, we have determined that early, intense guided field experiences are a most promising avenue to pursue in increasing our students' cultural competence. Models have been developed that can and should be adopted by teacher preparation institutions and adapted as necessary to align with the culture and context of the institution.

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Charting A Different Course: The Infusion of Social Policy and Community Studies in Teacher Education

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Abstract

Little is known about the kind of learning that occurs when teachers' professional development is situated at the intersection between university coursework, school practices and the lived realities of local communities. This study explores five years of data from a graduate seminar for inservice teachers, which examines how schools are situated within the larger social policy environment. Drawn from the coursework, surveys and interviews of eighty-five teachers working in sixteen school districts, the findings suggest that not only have teachers had few formal opportunities to learn about the impact of social policies on youth and families, but also that learning about these policies broadens teachers' organizational awareness, deepens their community connections and expands their professional network base. The findings point to the potential of designing post-licensure coursework in teacher education to both foster inter-professional collaboration and to broaden teachers' understanding of the relationship between social policy and school-community engagement.

While the research base on teacher learning continues to expand (Borko, 2004), little is still known about the kind of learning that occurs when teachers' professional development

is situated at the intersection between university coursework, school practices and the lived realities of local communities (Cochran-Smith, 2005). The lack of understanding about this aspect of teacher learning seems particularly significant in lieu of what Aaron Schutz (2006) terms, the "tragic failure of school-based community engagement strategies" (p. 691). In addition, schools are complex policy arenas marked not only by a layering of federal, state and local educational policies but also a myriad of external requirements and policy provisions that stem from the institutional systems designed to address social welfare problems (Honig & Hatch, 2004). Aside from the typical licensure course on child abuse reporting, however, teachers are provided with few formal opportunities to understand how these external policies might intersect in the lives of their students, impact school district operations or influence the quality of life in the neighborhoods and communities in which they teach. Consequently, teachers' understanding of how schools are embedded in the larger social policy environment remains a largely understudied aspect of teacher learning. If learning is, as Sonia Nieto (1999) observes, influenced by the context in which it occurs, then some knowledge of social policy and administration seems particularly relevant to teachers working to close the achievement in high-need schools and communities.

This study investigates the impact of infusing social policy and community studies curricula in a graduate seminar for inservice teachers. What happens, for instance, when teachers learn about the workings of the child welfare, juvenile justice and public housing systems that occupy such a central role in the lives of many of their most vulnerable students? How does this impact the way they think about their craft? In what ways does it influence the way teachers understand community and the role of schools as community building institutions?

A Thematic Curriculum: Individuals, Organizations and Communities

"Group Process and the Individual" is a four-credit course in *Project Lead*, a master's program for inservice teachers and prospective school administrators in Pacific Lutheran University's School of Education and Movement Studies. Organized

around four thematic foci (*Power, Privilege & Difference; Inquiry & Action, Ambiguity & Knowledge; Individuals, Organizations and Communities; and Advanced Cognition, Development and Learning*), the program runs fourteen months beginning in June and ending the following August when students complete their inquiry projects, which culminate in a thesis. *Project Lead* is a cohort program so all students begin and enter the program at the same time.

This study examines the implications of teacher learning in the four-credit seminar, "Group Process and the Individual," which is attached to and therefore enacts the curricular theme, *Individuals, Organizations and Communities*. During the first year of the program the course was taught in the spring semester, but it has been offered in the fall for each of the following four years. The seminar is three hours long and has always met on Wednesday evenings.

The course is organized into three distinct sections. In the first four-week section of the course students are introduced to the research and theory of educational and professional community. Students investigate community, what it means to be a member of a community, ways in which community is fostered in schools and classrooms and the role of leaders in guiding and sustaining social and professional communities. In particular, students consider how the civic, therapeutic and marketing models of community inform the social organization of schooling (Palmer, 1998), they read about a community of learners model of professional development designed to foster intellectual community among teachers in an urban high school (Grossman, Wineburg, & Woolworth, 2001), they review research on professional learning communities in schools (McLaughlin and Talbert, 2006) and they examine how communities of practice develop and evolve around the management and production of knowledge in organizations (Wenger, McDermott, & Snyder, 2002). The culminating assignment for this section involves a position paper in which students articulate their own beliefs about community, the roles and responsibilities of community leaders and their vision for community life in schools and classrooms.

In the second six-week section of the course students read about social policy and youth development (Currie, 1998) alongside three case studies from William Finnegan's (1998)

Cold New World: Growing Up in Harder Country, which detail the lives of young people coming of age in different cultural and economic contexts. Class time during this section of the course is organized around two activities. The first involves marking and mapping the intersections between schools and the larger social and human service system including the child welfare, juvenile justice, public health and emergency shelter and transitional housing systems. The second activity involves visits with different guest speakers who work with youth in that particular area of the human service system being studied each week. These have included a school district homeless liaison, a homeless youth outreach coordinator, a community liaison and "gang intervention" police officer, a Methodist pastor who administers social service and child care programs for the poor through her church and an executive director of a community network, which led the charge in developing a local continuum of care for meth-impacted youth and families in addition to after-school tutoring and mentoring programs. The culminating assignment for this section involves students going to a Community Service Office and applying for public assistance or TANF (i.e., Temporary Assistance for Needy Families), an experience they then document in an essay in which they reflect upon and analyze the implications of their learning in relation to their school community.

In the final section of the course, school and community-based programs (Maeroff, 1998 & Meier, 1995) that build social capital in marginalized neighborhoods are considered in relation to the social policies and models of community addressed in the first two sections. Students consider, for instance, the merits of social networking and social capital theories (Cohen and Prusak, 2001) and their relation to community building in schools. During this section of the course students write either a classroom- or building-level community action plan to both learn about what is currently happening in their schools with regard to community engagement and to draw on their learning from the course to propose new and more enhanced strategies that address everything from utilizing community assets and resources to fostering parental education and involvement.

At the end of the course students analyze their learning in "Documented Entries," which are part of an electronic portfo-

lio system of assessment. In the documented entry for this seminar, students are asked to provide and analyze evidence of their learning in relation to five guiding questions that correspond to the curricular theme *Individuals, Organizations and Communities*. The evidence of their learning could include anything from class notes and artifacts (e.g., handouts distributed by the speakers) to assignments in addition to evidence from their own instructional practice in schools (e.g., lesson plans, student work, letters to parents, etc.). They are then asked to reflect on the implications of their learning in relation to their educational practice. Some of the questions include: In what ways are schools organized to address needs/interests of individuals and communities? What are the tensions between these three entities? How are these tensions experienced/ addressed in educational settings? How do external communities influence the learning/experiences of individuals? And how might teachers, administrators and others foster and manage the various aspects of schools as communities?

In the five years the course has been taught a few changes have been instituted. For example, during the first year the Methodist pastor came to campus to dialogue with students but during the next three years the class went to meet her in the church. Moreover, during the last two years the class went on a guided tour of an urban neighborhood with a Lutheran pastor and community advocate who had spent the last twenty-five years fostering cross-cultural and inter-faith dialogue. The guided tour included visits to Korean, Vietnamese and Cambodian Buddhist temples, a native reservation and public housing developments. While there have been some small changes to course readings and assignments, the overall design of the course has not been altered in any significant way during the period of time examined in this study.

Data Collection and Analysis

This study is an example of the scholarship of teaching (Boyer, 1990). As the idea has developed over time, Shulman and Hutchings suggest, "It requires a kind of 'going meta,' in which faculty frame and systematically investigate questions related to student learning—the conditions under which it

occurs, what it looks like, how to deepen it and so forth—and do so with an eye not only to improving their own classroom but to advancing practice beyond it" (p. 13). The end goal of this study, then, is not just to determine whether students learned anything of importance but also to assess the implications of their learning for the field of teacher education more generally.

This study includes data from five different program cohorts of students between 2003-2007. In the five years the seminar has been taught 91 students have completed the course. The average seminar size was 18 students with the largest at 23 and the smallest at 8 students. The participants for this study include the 85 licensed teachers who have completed the course. While there were an additional 6 students, including 4 international teachers (2 from Norway, 1 from Korea and 1 from Namibia) and 2 university staff members who also completed the course, data about their learning has been excluded because the implications of their learning warrant separate analysis and discussion.

The data for this study include coursework, surveys and semi-structured interviews. The coursework analyzed includes the culminating electronic portfolios or "Documented Entries," which involve students identifying and analyzing evidence of their learning from the course in relation to five guiding questions. These portfolios were particularly helpful for this study because in most entries students revisit the specific assignments from the course and consider what they learned as a result of the assignment in the larger context of the course experience. Every portfolio (n = 47) from the last three years (2005-2007) is saved on the program's account with LiveText, where they were downloaded and then re-assessed and coded for themes and patterns. Select hard copy portfolios from the first two program cohorts were also analyzed.

A thirteen-item survey questionnaire was mailed to all the students who had completed the course. The first eight questions addressed professional background information like years in the profession, the number of schools in which they taught, the percentage of students eligible for free and reduced lunch at their current school and the year in which they were a student in the program. The remaining five questions asked the respondents to reflect on their experience in the course. Specifi-

cally, the questions asked respondents to recall their experiences in the course, to identify what they learned, to identify what aspect of their learning has informed their instructional or administrative practice and what, if anything, impacted the way in which they participate in community (e.g., professional, neighborhood, faith-based, etc.). Because some students had no forwarding address in place, however, not everyone could be contacted about the survey. The survey was mailed to 76 teachers and 31 or 40% were returned. The respondents also were given the choice about whether to identify themselves or not and all but one did.

In order to triangulate the data—or seek what Eisner (1991) calls "structural corroboration"—follow-up semi-structured interviews were conducted with nine survey respondents, which included at least one teacher from each cohort. Eight of these interviews occurred over the phone and one was in person. The purpose of the interviews was to inquire more deeply about the responses on the survey and to discuss the preliminary findings from the study. In particular, the interviews were used as an opportunity to minimize researcher bias by seeking formal corroboration of the initial findings. Lincoln and Guba (1985) have referred to the effectiveness of "member checks," in which research participants are asked to review, critique or corroborate findings as a way of insuring credibility of results in qualitative studies.

Findings

Three findings emerged in the data. First, the teachers in this study did not have formal opportunities in either their preservice licensure programs or in state- or district-sponsored professional development experiences to learn about the range of social and institutional policies that impact the lives and experiences of many struggling families. The data on teacher learning from the course suggest infusing this knowledge into teacher education leads to new kinds of thinking with regard to the role of schools in family and community life. Second, introducing social policy curricula into teacher education enhances teachers' organizational and community awareness. In short, teachers learned to see the operational aspects of their schools and districts in more detailed ways and they developed

a better understanding of the institutional structure of the communities surrounding their schools. Third, inviting other youth professionals and community leaders into this graduate seminar broadened teachers' professional network and in some instances served as a catalyst for inter-professional collaboration. Each of three findings is presented in more detail below.

Teacher Learning & Social Policy

The 85 teachers in this study worked in 16 different school districts. The one thing they shared, though, was that none were provided with learning opportunities in either their initial licensure programs or in state- or district-sponsored professional development experiences to learn how schools—and the public education system more broadly—are situated within or connected to the larger social policy arena. Learning, as one experienced teacher noted on her survey, "how dense and complex the systems are that are designed to assist our neediest kids" led to new kinds of thinking among the teachers who completed the course. While this finding is neither surprising nor groundbreaking, it does call attention to the challenges teacher educators face attending to the full range of contextual factors that shape the lives of marginalized youth and families in ways that empower teachers to both value and act upon their new learning. In order to "view a student through multiple lenses," concluded one ninth grade science teacher with 7 years in the profession, "it is pivotal to consider the interdependence of communities and schools."

An analysis of teachers' electronic portfolios and accompanying coursework reveals how infusing social policy curricula into teacher education prompted teachers to think and see across institutional boundaries, which for many was a new experience. For example, one elementary teacher at the beginning of her career noted in an in-class writing prompt, "I also didn't realize how much all the different administrative regimes cross over each other…I need to be aware of all that goes on with the juvenile justice system, child welfare, public health, public housing and youth organizations…and acquire more knowledge of these resources." Three years after finishing the program, Henry, now in his tenth year of teaching at the

middle and high school level, reflected in an interview, "social policy knowledge is the first step to believing in social justice because let's face it, teachers have a tough time connecting with lower class America."

In addition to thinking and seeing across institutional boundaries, asking teachers to study how schools are embedded in the larger social policy environment also led many to view their craft differently. Min, a special education teacher working in an urban elementary school wrote that before she took the class she had "assumed" that knowledge of the allied systems was the exclusive domain of a school's support personnel (e.g., counselor). After more than three months of studying community issues and social policies, however, she observed, "now, I understand that it is everyone's shared responsibility and we are all accountable." For Rachel, another special education elementary teacher, learning to see across institutional systems also got her thinking about the different kinds of technical vocabularies used across professions and organizations and how she needed to "better recognize the knowledge and expertise that others bring and that may have been previously hidden from me because of how others interact and share knowledge in different settings." She concluded in her portfolio that she would be more aware of communicating across professional language differences in order to make her school community more "transparent to outsiders so we may interact productively, in the interests of the children."

Developing Organizational & Community Awareness

The second theme that emerged in the data is that the infusion of social policy curricula assisted teachers in developing a more finely tuned organizational and community awareness. As a result of learning how and where the work of schools intersects with social welfare institutions like child protection agencies and homeless shelters, the teachers in this study came to see their school and district operations in more specific and detailed ways. In some instances, this new knowledge led teachers to see the shortcomings of their district's community outreach and engagement strategies. For example, one teacher, with close to two decades of experience in the profession and

currently the dean of students in her suburban high school writes of her learning in the course, "I have more knowledge to help students. I wish that more time and resources would be spent on educating our staff and helping families."

One of the most common elements of the electronic portfolio submissions involved teachers writing about their newfound awareness of the McKinney-Vento provisions within *No Child Left Behind* (Public Law 107-110). Only a few individuals knew what the *McKinney-Vento Homeless Assistance Act* (Public Law 100-77) was upon their entry into the course; but after reading about local efforts to support homeless youth and families and spending an evening with a school district homeless liaison and a homeless youth community outreach coordinator, almost every teacher who completed the course wrote about the role and responsibility of their school and district in educating homeless children in their electronic portfolios. Consider, for example, Joyce, an experienced elementary school teacher who wrote in her portfolio:

> After this session of class, I found that our district has a homeless liaison... Additionally, I was able to locate the resources and forms that our district has to help families in need regarding homelessness. Finally, the last opportunity I took from this session was to meet with our school's family advocate...She and I discussed homelessness in our own school. She told me about the eight students…that are currently homeless and she described the services that she and the school district offer to them. The presentations, resources and meeting…all showed me that our school district has to be organized in a way that can help families in need regarding housing.

Engaging with this curricular content also seemed to focus teachers' attention on the importance of school-community partnerships as evidenced by the fact that approximately 45% (n = 14) of survey respondents cited their own involvement in or awareness of partnership programs as a result of their course experience. "Until this course," Angelia observed, "I was unaware of such outreach programs for youth. I have since become involved in the afterschool tutoring program and have

noticed a heightened self-confidence in the students that attend (name) Elementary."

Introducing teachers to the institutional systems and policies that form the human services arena broadened their awareness beyond their own schools to the institutional structures and resources within the community. Joseph, a third-year teacher working at an urban high school with a 65% free and reduced lunch rate, wrote that the course experience "opened my eyes to what is actually occurring right in our backyards. I did not realize the many community organizations that are helping our youth and families." His eyes were opened even further when he discovered one of the counselors in his school couldn't even direct him to the nearest Community Service Office (CSO)—a discovery that hit him hard when he went there to complete his assignment and encountered one of his students and her mother signing up for public assistance. Robert, a high school photography teacher, was similarly struck by his prior lack of knowledge about community institutions. "Not only was I ignorant about much of the terminology used including CSO and TANF," Robert explained in his portfolio, "but I was not even sure where the local CSO office(s) was located. This was an interesting paradox considering that my work involves a healthy population of people who frequent such offices."

Enhancing teachers' organizational awareness brings greater knowledge of the human service system. This is one step toward what might best be described as a form of community competency for those working in impoverished neighborhoods. Out of the 85 teachers who have completed this course, though, Melissa represents the most compelling example of the benefits connected to developing community competency in teachers. Now in her sixth year of teaching middle school math and reading, Melissa, who also has an endorsement in special education, has worked in four different schools within three different districts since she first enrolled in the master's program in 2003-2004. Melissa used the community action plan assignment to begin developing a community resource guide, a process in which she would continue to invest when she

transitioned to two other districts even though as she admits, "I drove the front office folks and counselors crazy asking all

these questions." Melissa believes that she "can't teach and my students can't learn if I don't address the resources that are there" in the community—a belief reinforced through her work with parents when developing and carrying out IEP goals.

Melissa's community asset mapping accelerated her ability to make an impact in her work as a new teacher in a school. This was demonstrated when she took a job in a rural farming community that was devastated by a catastrophic flood during her first year. With over eight feet of standing water in places, the region was declared a national disaster area and the Federal Emergency Management Agency (FEMA) was deployed to the area. Soon thereafter, one of her students, whose family was displaced, entered her classroom in tears because she couldn't find the services in the community to which the FEMA team had referred her. As Melissa recalled, "I pulled it right out of my file" because "I had already gathered the resources and I wouldn't have done that if it wasn't for this class." Some of her colleagues had been teaching for "twenty-five years and when the flood happened they didn't know what to do…but teachers are compassionate people and when I brought them my community resource directory they were like, 'thank you!'"

Broadening Teachers' Professional Network

Opportunities to learn from and dialogue with community leaders and those professionals who work in the allied systems (e.g., child welfare, law enforcement, emergency shelter care, etc.) deepened teachers' community connections and expanded their professional network base in ways that point to the value of intentionally fostering inter-professional dialogue and collaboration through teacher education. This is indicated by the fact that over two-thirds (n = 21) of the teachers who responded on the survey cited the opportunity to dialogue with members of the allied professions as instrumental to their learning and their ongoing professional development. The portfolios, moreover, are saturated with examples of teachers reflecting on how much they learned from participating in multi-disciplinary conversations about youth, families and communities.

The power of fostering this kind of inter-professional dialogue was also supported by important anecdotal data. For example, one teacher brought her high school class to the Methodist Social Justice Church for a service-learning project while another called upon the community network director to assist her in initiating a child sex abuse investigation in a remote rural community. After learning from the same community network director that his district's school was situated within a neighborhood with a heavy concentration of methamphetamine laboratories, another became quite vocal in asking questions about how this was impacting the educational experiences of students and why the district wasn't doing anything to educate teachers about it. Robert, the same high school teacher who didn't know about CSOs and TANF, developed some basic literacy in gang graffiti from the community liaison police officer, which helped him to decode "a tag that had been written on one of the cabinets" in his classroom. However, perhaps even more telling was the recollection from a seventh-year math teacher from the program's first cohort who teaches at an urban middle school with 70% free and reduced rate. Four years after the class, she was still impacted by the class discussion with "the pastor…who lives in her community and challenged us to do the same. That still nags at me and questions my comfort. I take small steps toward being a part of the community, shopping there on occasion…"

Conclusions

Not all aspects of teachers' professional practice are reducible to meeting prescribed student learning outcomes. Classrooms are located in schools and schools are embedded in neighborhoods—the interconnected nature of which calls attention to the often taken for granted influence of how environmental factors shape and texture the educational process. In her 2005 presidential address to the American Educational Research Association, Marilyn Cochran-Smith observed that, "many goals of teacher preparation are best met in the intersections of universities, schools and communities" (p. 13). The findings from this study on the infusion of social policy and community studies curricula into teacher education indicate

that locating teachers' professional development at the intersections Cochran-Smith identifies merits further attention. Through their participation in this one graduate-level seminar, teachers deepened their knowledge of how schools are situated in the larger social policy arena, they sharpened their organizational and community awareness and were presented with opportunities to broaden their professional network in ways that helped them understand the social context in which they worked and their students lived.

This study, however, does raise complex questions about how teachers should define their sphere of influence. The performance-based accountability systems that have emerged in public education as part of the standards-based reform movement have so anchored teachers in their classroom instructional practice that many of the participants in this study expressed frustration with the lack of time they had to invest in meaningful relationships with their students, to participate in school and community partnership programs and to learn more about the larger social and institutional infrastructure surrounding their school. It has become an enduring tension for the profession. To what extent should teachers be sheltered from community pressures by their administrators and support personnel so they can focus on improving student learning in their classrooms versus taking on more activist roles within and beyond their schools that position them to better understand the larger contextual forces impacting not just how students learn, but how they negotiate their day-to-day lives in what are too often stressful and dehumanizing conditions in their homes, their neighborhoods and their communities?

Two Nationally Board Certified teachers in their course reflections best articulate the two sides of this professional tension. Beverly, who works as an instructional facilitator in a middle school, writes, "I can see the benefits of bridging schools and community…I just struggle with how one person or educators who are already overburdened can do it alone …too many other factors that are high stakes." Elizabeth, who works for a nonprofit organization on teaching policy, countered, "This is our work…You just can't expect kids to walk in the door and leave their lives behind…bridging two worlds together is critical. There is no way we as educators can be divorced from it. This is our work!" While it may be unneces-

sary to expect teachers to resolve this tension or agree upon the precise parameters of their professional jurisdiction, teacher educators may want to consider making this tension a more visible curricular component in their program coursework.

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Elementary Education Candidates' Background Knowledge and Attitudes Toward Science: Are Liberal Arts Teacher Preparation and Core Courses Enough?

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Abstract

This study examines the preparation of preservice elementary teaching candidates in science content and methods courses and the relationship of their coursework to future teaching. One-hundred-five undergraduate elementary education majors participated in the study. Data was gathered through the completion of a background questionnaire and Likert-scale survey. The results from the questionnaire and survey indicated that a majority of the preservice teachers had negative attitudes towards science, felt unprepared to effectively teach science and saw little connection between college science and elementary classroom teaching. The participants proposed many ways that preservice teacher education curriculum in science could be improved. Common suggestions included: content courses connected to methods courses; inquiry-based content courses; a balanced core curriculum; team-taught content/pedagogy courses; and more time allocated for science methods courses. At one of the institutions, changes to the curriculum based on participants' concerns are being addressed by liberal arts faculty in the sciences and the education faculty.

Statement of the Problem

Over a decade and a half ago, less than a third of elementary teachers questioned in a national poll felt qualified to teach the subject of science to their students (Weiss, 1991). Many experienced and beginning teachers still report a lack of confidence and skill in their science teaching abilities in numerous studies (Ginns & Watters, 1998; Jarvis & Pell, 2004). The teachings of science, scientific literacy and preparation of skilled teachers at each level of learning have been topics of major concern for almost two decades (AAAS, 1989). Recent findings based on two studies state that colleges and universities lack in appropriately preparing preservice teachers with the abilities necessary to effectively teach science to their students once they enter the teaching force (Plourde, 2002; Metzenberg, et al., 2004). The lack of both confidence and qualification expressed by preservice teachers poses a major problem because of its impact on classroom practice and ultimately results in minimal time teaching the subject of science (Haden & Holroyd, 1997; Skamp, 1991). Many investigations during the past two decades have shown that when science is taught, it is taught in a poor manner, most often using didactic approaches rather than implementing activities that are inquiry based (Abell & Smith, 1994; Appleton & Kindt, 1999; Beneze & Hodson, 1999; Haden & Holroyd, 1997). Furthermore, it is likely that teachers who hold negative attitudes toward science convey this attitude to their students, creating yet another generation of students who dislike the subject (Westerback, 1982). A recent study conducted in Great Britain seems to echo the findings of the studies conducted in the United States and reveals that over the past ten years little has changed (Murphy, et al., 2007).

The deficiency of science preparation that preservice elementary teachers receive in higher education is described as inadequate, both in content and methodology of instruction (NRC, 1990, 1996; Tobias, 1992). This deficiency is attributed to the structure of introductory level content science and method courses and the belief held by preservice elementary teachers that science is difficult and uninteresting. Many of the models used in science content courses are based on lectures to convey science content. Science is typically presented as a

rigid body of facts, theories and rules to be memorized and practiced, rather than a way of knowing about natural phenomena (Abell & Smith, 1994). According to Anderson and Mitchener (1994, p. 29), "the understanding about the nature of science developed by preservice teachers in a methods or science course is simplistic and probably incorrect." Many of these traditional models fail to engage students in the learning process, leaving students with shallow understandings, weak connections among ideas, misconceptions about how the natural world operates and the inability to apply knowledge in new settings (Craven & Penick, 2001). According to Jarmen (1996), it has been found that preservice teachers, along with inservice teachers, can have the same misconceptions about science concepts as their students. Such misconceptions about subject matter can have disastrous results on student learning, since misinformation is being passed on from teacher to learner.

Many preservice teachers enter their student teaching semester and subsequent classroom positions with limited conceptual understandings of scientific ideas regardless of how many previous science classes they have had (Riggs & Enochs, 1991). In one study by Plourde (2002), preservice teachers had actually forgotten what they learned in the science methods course upon entering their student teaching semester. From this, it can be inferred that preservice teachers did not have a memorable learning experience in the methods course. Anderson (1997) stated that preservice teachers have reported, "student teaching was the most (sometimes only) significant portion of their teacher education (p. 27)." This supports the idea that the knowledge gained in their college courses was not perceived to be highly related to classroom practice. In Plourdes' (2002) study that interviewed student teachers about their experiences in college science courses, five of the six preservice teachers stated that these courses were not motivating and did not prepare them for the teaching of science to elementary students. They felt their beliefs originated from a lack of practical work and hands-on manipulation in science activities in elementary, secondary and college-level science courses. Furthermore, they reported that these science courses depended too much on textbook lectures and that there was a negative association with science instructors. Formalized tests

were the main focus with no performance assessments and the inservice/mentor teachers expressed a lethargic attitude towards science teaching.

The importance of the inservice/mentor teacher relationship is well-established through post-professional development workshop surveys and classroom questionnaires (Morgan, 2007). There have been limited efforts to link college classroom science instruction with practitioners in the field. The majority of these initiatives have been through short-term summer programs and inservice workshops. One study by Van Zee, et al., (2005) showed the benefits of inservice elementary teachers collaborating with college science faculty. The focus of this particular effort was inquiry teaching in the physical sciences and the results seemed to indicate that the experience was beneficial to both the elementary teachers and the college faculty. Goodman, et al., (2006) studied the benefits of offering a special section of a biology course for education majors at a large institution that emphasized investigations, small-group discussions and limited lectures. The results suggested that the students in this section faired better that their counterparts in regular biology sections in terms of their attitudes toward science and science teaching. Implementation for such programs mentioned above face several hurdles if they are to be successful. Among these are support from administration, financial support for the inservice teachers and, most importantly, the willingness of the science and education faculty to participate and collaborate in such efforts.

The role of the science methods course and the curriculum presented in methods courses has received a considerable amount of attention. Palmer (2001) conducted a study in which three important factors seemed to be vital in improving science teacher education. The enthusiasm of the instructor, devising theory into practice lessons and positive classroom verification from K-8 students were critical as reported by the participants. According to Anderson (1997, p. 274), "the science methods course should be envisioned as the launching pad for a career-long process of professional development." The science methods course has the potential of guiding the preservice teacher on a path of continuing self-directed development as an effective and successful science teacher. It is regarded as the lynchpin of the teacher education program,

where science concepts can be addressed and on which the teaching act can be focused, rather than lost in the contextual background aspects of learning how to teach. It connects the gap between theory and practice and between coursework and student teaching. According to Rice & Roychoudhury (2003), the science methods teacher is extremely influential in the methods course, as it might perhaps be the only chance for science instructors to influence preservice elementary teachers' attitudes toward the teaching of science. The role of the science methods teacher is no easy task. As mentioned above, many preservice teachers have had negative experiences in science education throughout each phase of learning—elementary, high school and college and have left many preservice teachers with poor science content knowledge, insufficient skills and a lack of confidence in teaching science effectively to their future elementary students (Westerback, 1982; Young & Kellogg, 1993).

Another important aim of the methods course is to improve the science teacher candidates' confidence by tailoring the instruction in the course to meet the needs of the students (Palmer, 2001). Researchers have taken a look at the concerns and expectations preservice teachers have when enrolled in a science methods course (Rice & Roychoudhury, 2003). Boone (1993) found that preservice teachers valued lesson-planning activities and evaluation of materials. Butts, Koba1la and Elliot (1997) found that preservice teachers expected to learn science content and that this increased their confidence in teaching science. Cronin-Jones and Shaw (1992) looked at the influence of the science methods course on preservice teachers' beliefs and concluded that the "task of teaching" was a major concern for them. Recent studies conducted in Australia (Hackling, et al., 2007) and Canada (Taylor & Corrigan, 2005) suggest that changing the emphasis on methodology from "tactics" to understanding and introspection seemed to have a positive effect on the teaching candidates. Other science educators have proposed a more fundamental and comprehensive vision for change in the science methods course (Abell & Bryan, 1997; French, 1995; Koballa & French, 1995). This proposed vision postulates that science methods teachers model cooperation rather than competition, students reflect on their work and negotiating decisions as a whole class is more

powerful than basing it on teacher expectations. This vision changes the traditional role of student and teacher and creates a more democratic classroom environment (Koballa & French, p. 69).

In a comprehensive study by Ramey-Gassert and Shroyer (1992) several components of a well-rounded science teacher education program were noted that seemed to benefit the teaching candidates in terms of both their competencies in science content and their abilities to successfully facilitate student learning. Many of these components are mentioned in studies referred to previously. Additionally, aspects of comprehensive science programs highlighted in this study included introducing the nature of science to those that are unsure of its uniqueness or are beginning students, focusing students' attention on gaining experience in science through a non-competitive environment, and perhaps most critical, having candidates participate in multiple microteaching and field experiences with a wide range of student populations.

The science methods teachers and the college science content teachers must be "catalysts" for change. The changes must inspire preservice teachers to transform the traditional models of science education to new understandings about inquiry and meaningful learning. Instituting useful instructional strategies into the science methods course and the college content courses can help preservice teachers to confidently and effectively teach science to their future students.

Purpose

The purpose of this study was to closely examine the preparation of preservice elementary teachers in science content and methods courses at two liberal arts-based institutions. Pre-college formal classroom experiences in learning science were also factored into the study. Both the pre-college and higher education science course experiences and instruction were examined for influence on their attitudes, skills and confidence levels toward science teaching. Most importantly, student suggestions and proposed revisions to the content/science methods curriculum at both institutions were compiled to be incorporated into the conversation between education and

science departments regarding improving teacher education at one of the liberal arts colleges.

For the purposes of this study, the following questions were addressed: what effect has past experiences in pre-college science classes had on preservice teachers' attitudes towards science/science teaching and did these experiences impact their perceived ability to teach science? And how can teacher preparation programs be improved in the areas of science content, skills and effective science teaching methods?

Methods

One-hundred-and-five undergraduate preservice elementary teaching candidates were participants in this study. The teaching candidates were attending either a public state university or a private liberal arts college with similar elementary teacher education programs. Both institutions had a one-semester merged course of mathematics and science pedagogical methods. In addition, the two institutions promoted a strong liberal arts education for their education majors with a two-semester requirement of science. The participants were overwhelmingly female, although this was not addressed in the study.

Data for the study was gathered through voluntary completion of a background questionnaire and a Likert-scale survey at the end of the mathematics/science methods course. The background questionnaire collected information on the participant's history of schools attended, science courses completed and field placement and practicum information. The thirty-item Likert-scale survey, which was piloted and peer reviewed before distribution, gathered information on the respondents' classroom experiences at each level of science learning including their attitudes, skills and confidence levels towards science and science teaching. The survey also included a free response section on field placement/practicum teaching experiences and suggestions for revisions in the science teaching preparation process.

The study was limited to investigating the impact of teaching candidates' background and science content/methods courses on preservice teachers' perceived ability to teach science during the student teaching semester and beyond. The

preservice teachers were only able to express their projections on how confident and prepared they felt to teach science to their elementary students during student teaching and subsequent professional positions. Student suggestions and recommendations were incorporated into the ongoing discussion at one of the institutions regarding the reorganization of the science methods/science core requirement.

Results

The results were grouped into four categories: (l) precollege experiences/attitudes towards science; (2) experiences/attitudes and confidence levels after completion of science content/methods courses on student teaching/future teaching; (3) impact of science methods and content courses on preservice teachers' attitudes/confidence level; and (4) suggested revisions in the liberal arts/education program to help candidates achieve proficiency in teaching science.

The background questionnaire and survey revealed that over 85% of the preservice teaching candidates attended public elementary/high schools. Essentially all of the participants, greater than 90%, recalled the same experiences of learning elementary science through textbooks and teacher lectures/note taking. They did not regard science as being their favorite subject nor did they feel it was an enjoyable or positive experience for them. Most had negative attitudes toward science. The remaining participants stated that they were taught science through science textbooks and lectures and occasionally through hands-on experimentation. They did not regard science as being their favorite subject, but, felt they had a positive attitude towards it and also felt it was an enjoyable and positive experience for them.

Results from secondary school experiences and attitudinal measures were unanimously negative. All participants recalled being taught science only through textbooks, lectures and note taking. Although science experiments were required in most of the respondents' secondary science classes, the laboratory investigations were often disjointed and not connected to the classroom. Science was not regarded as their favorite subject, nor did they feel it was an enjoyable or positive experience for

them. Eighty percent claimed to have a negative attitude towards science, 20% claimed to have a "neutral" attitude and no one responded in a definitively positive way in their attitudinal view of science.

The participants' college science experience was almost a mirror image of the secondary experience. Eighty percent recalled having the same experiences learning science as in high school through traditional models, textbooks, formalized testing and lectures/note taking, while the other 20% reported learning science through traditional combined with somewhat stimulating hands-on experiments. All participants regarded having misconceptions about science concepts and that the instructor(s) did not explain things well. They did not feel confident in their knowledge of science concepts and felt they could not apply what they learned to the student teaching semester, nor could it be applied to their "future" teaching. After completion of these courses, all of the candidates felt it was a negative experience, some even added comments stating that the class(es) was/were "boring," "extremely hard" and "required way too much reading."

The results from questions based on the science methods courses revealed that all students had completed the required one science methods course in their preservice education. The results from this query were divided based upon the institution where the participants were enrolled. At one institution the respondents expressed a lack of exposure to hands-on science experiments modeled by the methods teacher, lesson planning activities and methods of teaching science concepts to students. Traditional models of teaching science were still used in the methods course. The instructor was not enthusiastic about science teaching and did not motivate the preservice teachers in wanting to teach science. Misconceptions about science concepts still remained unclear with little time given for deconstructing the basis for the misconceptions and "relearning" the concepts in the scientific view. Overall, the preservice teachers did not feel the methods class was a positive, motivating experience for them.

At the other institution, the majority of the respondents felt that the instructor tried to model best practices in science teaching, but felt rushed to cover the material in such a short period of time, one half of a semester. Compiling attitudinal

responses for both institutions, 50% of the participants regarded themselves as having a negative attitude toward science/ science teaching, 20% regarded themselves as having a "neutral" attitude and 30% felt the methods course had a positive impact on their attitude toward science. In spite of the somewhat uplifting aspect in regard to some participants' attitudes toward science, only a small percentage, less that 20%, regarded themselves as feeling well prepared, confident or skillful in their science teaching abilities as a result of the method courses. Only 15 respondents viewed themselves as good to excellent science teachers. All of the participants agreed/strongly agreed that teaching science in their student teaching semester was going to be a challenge and they felt less than confident in their training. All participants from both institutions believed that the science methods course was important in preparing preservice teachers to teach effective science to students and should, therefore, be improved to help preservice teaching candidates build the confidence and skills needed to achieve this. When asked about what the preservice teacher values most in the methods course, most respondents "strongly agreed" to lesson planning and learning science content in the context of teaching and manipulation of materials.

Study participants reported several suggestions for improving the science curriculum of teacher education programs. Participants recommended that science content courses be linked to science pedagogy courses and that content courses stress active, inquiry-based learning. Study participants also suggested that: a) more time be allocated for science methods courses, b) both content and pedagogy courses be team-taught and c) instructors place greater emphasis on students' understanding of the true nature of science.

Discussion

It is clear from the outcomes of the questionnaire, survey and the responses gathered in this qualitative study, that preservice teacher education programs from the two institutions involved are inadequate. The results from both the background questionnaire and the Likert surveys reveal that the majority of

preservice teaching candidates had negative experiences and attitudes towards science at almost every level of their education. The mindsets the participants developed in their previous experiences were regrettably reinforced in the liberal arts-teacher education programs at the two institutions involved in the study. The majority of their negative experiences included didactic science teaching utilizing textbooks, lectures and note taking. Positive experiences included at least a minimal exposure to engaging science activities, primarily in the science methods class.

A majority of the students entered science content courses with negative attitudes and half of them left again with the same negative attitudes. The traditional models of teaching that were presented to them in high school were once again being presented to them in these courses. Students had entered with misconceptions about science concepts and completed the course with the same held misconceptions. Although there was a relatively short time lapse for each preservice teacher between completion of science content courses and enrollment into student teaching, the vast majority felt unprepared to apply anything of value from the content courses to their student teaching. From this, it was apparent that preservice teachers did not have a positive memorable experience if they were not able to remember what they learned in terms of applying this knowledge to a new setting, such as student teaching. The lack of preparation in science concepts/ideas, continuing negative attitudes toward science and minimal connection to classroom applications were prevalent in the content course and remerged in the science methods course for a majority of candidates.

The results from the science methods course were disturbing. More than half of the preservice teachers had negative experiences. In the vast majority of science methods courses traditional transmission models were still being employed to teach the candidates. The lack of preparation in lesson planning, modeling hands-on science experiments and demonstrating the teaching of science concepts to students, left the preservice teachers feeling unqualified and unprepared to teach science. The experience of learning how to teach science was not presented to them and they did not feel confident as future science teachers. A few of the teaching candidates had positive

experiences in the methods course at one institution because of the instructor's connections between theory and practice. The preservice teachers regarded the methods course and the instructor to be highly influential in preparing them to teach elementary science. Students consciously and unconsciously remember a wide array of their experiences throughout each level of schooling and this retention shapes and molds who they become and how they feel about themselves, both as students and as teachers.

It is clear that there needs to be a concerted effort on the part of the liberal arts science faculty to be involved in bettering the preparation of future elementary science teachers. It seems only natural that higher education science content teachers need to get more involved in undergraduate and graduate teacher preparation. At one of the institutions involved in the study, arts and sciences faculty have met regularly with education faculty to devise an appropriate curriculum for both the education major and the non-science, non-education major. Proposals that will soon be piloted include: college science content courses that are tailored for education majors, college science content courses that are more hands-on in nature, more collaboration between education and arts and science faculty and a full semester course dedicated to science methods. It is interesting to note the many similarities in these proposals to the suggestions mentioned by the participants and future educators, in the study. Critical to this discussion is the refocusing of science faculty in terms of what is important and relevant for K-12 science classroom teaching. During the conversation it was enlightening to education faculty involved that the passion for the "study of science" that motivated science faculty to pursue their careers almost universally resulted from a K-12 teacher who sparked their interest. Equally revealing was the self-realization that their (science discipline faculty) drive to cover content was doing more harm than good in preparing classroom teachers.

Connected to this revitalization is that a concerted research effort be paramount to gauge the effectiveness of this collaborative program and similar programs in teacher education. According to a recent editorial comment (Windschitl, 2005), unlike most other disciplines, there exists an opportunity to coordinate the agendas of scientists and teacher educators.

After all, much of the work in cognitive science and student learning in all disciplines developed from researchers grounded in the natural sciences. "Decisions about the larger programmatic dimensions about teacher education are not being advanced by the full range of potential evidence grounded in teacher performance and student learning, leaving us vulnerable to well-deserved criticism and the very real proposition that … teacher education be overtaken by those who know little about teaching and learning" (Windschitl, p. 532).

It is paramount in the curriculum revision proposals being developed that both science content courses and science methods courses be taught in a manner that is stimulating to the enrollees and models best practices of science teaching and learning. This can only be accomplished by involving all stakeholders in the process including science and education faculty at higher institutions, inservice professionals, teaching candidates, policy makers and elementary students. It is critical that science learning and understanding improve at all levels of our educational system.

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Four Challenges of High-Needs Schools: Equipping Teacher Candidates to Deal With Less-than-Ideal Conditions

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Abstract

Although high-needs schools rarely provide extensive scaffolding for beginning educators, liberal arts colleges that are committed to the moral and intellectual development of teachers can serve a pivotal role in helping their candidates choose such schools and commit to serving in them for the long term. This article describes ways in which programs at AILACTE institutions can prepare their candidates to meet four challenges commonly experienced at schools located within communities of poverty. These four challenges include frequent administrative turnover, the lack of essential instructional materials, limited curricular and pedagogical options and low levels of parental participation.

In the seven years since the passage of NCLB, high-needs urban schools continue to employ disproportionately large numbers of teachers just entering the profession (MacKinney, Haberman, Stafford-Johnson & Robinson, 2008). Although these young educators begin their careers armed with best practice strategies and a heavy dose of idealism, they soon come to understand that technique and romanticism alone will not serve as sufficient motivators for remaining in such a school. Too often these types of schools are not the learning

environments novice teachers had envisioned or found in the pages of their teacher preparation textbooks. Because they do not feel adequately prepared to deal with conditions found in this type of school, where 20% or more of their students qualify for free or reduced lunches (Ready to Teach Act, 2003), nearly one half of these teachers exit the profession or endure their first years and then seek transfers to more functional schools, thus beginning a new cycle of first year teachers in the building (MacKinney et. al., 2008).

Sonia Nieto (2003), in *What Keeps Teachers Going?,* identifies three key elements that enable longevity in the profession. The first is the potential for relationships with students; the second is the desire to be part of a meaningful and worthwhile endeavor; and the third is the possibility that their work might have an impact on the future (122). But in order to progress to this perspective, novices must get past the overwhelming impact of teaching in less-than-ideal circumstances. Teacher education programs are rightly accredited on their ability to equip preservice teachers with skill in the most innovative professional technologies and practices. However, to create a cadre of teachers with staying power for schools that serve low-income families, programs must assist their candidates in acquiring more than skill with cutting-edge tools and professional support networks; they must also develop their capacity to teach in schools that do not offer such resources.

Although these types of K-12 learning environments rarely provide extensive scaffolding for beginning educators, liberal arts colleges, who are committed to the moral and intellectual development of teachers, can serve a pivotal role in helping their candidates choose such schools and commit to serving in them for the long term. A liberal arts education offers its graduates breadth and depth of study, as well as skill in the critical and creative thinking necessary to address the theoretical and practical challenges particular to high-needs schools. Teacher preparation programs at AILACTE institutions, by their missional heritage and longstanding dedication to social justice, not only emphasize teaching as intellectual activity but also ground that activity in service to society.

The realities of high-needs contexts require rigorous scholarly exploration of theory and practice during preparation. Nelson (2004) writes

> The plethora of prescriptive, state-adopted, curriculum-in-a-box approaches to teaching illustrates the continued and misguided struggle to find the silver bullet for how to best "train" rather than educate teachers. Teacher preparation programs can best prepare teachers for the complex environments of high-needs schools when their programs are oriented to teaching as an intellectual rather than a technical activity. (p. 475)

Although teachers who begin their careers in these environments face many additional challenges, this paper addresses four significant aspects of high-needs schools and offers strategies for liberal arts teacher education programs to help their candidates prepare to meet the demands of these conditions. These four conditions include frequent administrative turnover, the lack of essential instructional materials, few curricular and pedagogical options and low levels of parental participation.

These characteristics align with a 2005 study conducted by Mid-Continent Research for Education and Learning (McREL), which focused on the interrelatedness of leadership, instruction, professional community and school environment in high-achieving high-needs schools. The study defined leadership as instructional guidance, organizational change and shared mission and goals. Instruction involved the format of pedagogy, provision for individualization and access of opportunity to learn. Professional community included collaboration, professional development opportunities and support for teacher influence. Finally, school environment involved orderly climate, academic press for achievement, assessment and monitoring and parent involvement. The McREL study, in comparing high-achieving high-needs schools with low-achieving high-needs schools, found that high-achieving schools had stronger leadership, higher expectations for learners, more instructional resources, greater opportunities for collaborative professional development in instruction and more effort to create a school ethos that fostered productive learning and valued parental involvement than their low-achieving counterparts. In addition, the study also traced the relationship between each of these elements, finding that increases in one area linked to the others. For example, strong administrative

leadership in high-achieving schools led to greater opportunities for professional development.

While the McREL study demonstrates the importance of these interconnected factors in increasing student achievement, it also reveals the impact the absence such factors have on student achievement at high-needs schools. But how do educators practice in contexts which lack these vital resources? More importantly, how do novice teachers contend with such realities? This article addresses these four characteristics and explores how one teacher education program prepares its candidates to deal with them.

The child attending a high-needs school is less likely to have the same teachers and principal in school five years later.

Effective leadership is essential for increasing teacher retention in high-needs schools. A recent teacher survey conducted by Guilford County Schools, which serves 71,400 North Carolina students, found that the primary factor in determining whether or not teachers would choose to work in a challenging school was "a strong, experienced principal" (Grier & Holcombe, 2008). But the "revolving door" phenomenon that affects teachers in high-needs schools also impacts the longevity of is administrators.

When secondary mathematics education graduate, Steve, began his career in a Chicago urban high school, several of his freshman algebra students immediately asked him, "Will you be here next year?" Steve's response to his skeptical class was that he would stay to see every one of them graduate. Steve kept his promise for 11 consecutive freshman classes; but his commitment was the exception rather than the rule. During his 14-year tenure, Steve saw 11 principals lead his school and over 45 math teachers fill the 7 positions in his department. For Steve's adolescents, who experienced little stability in the outside community, school only mirrored the unpredictability they encountered in other areas of their lives.

Each of the principals at Steve's school introduced a new reform effort with the hope of increasing test scores and decreasing drop-out rates; but each program was given too little time to show progress before the next leader and set of goals

was initiated. The numerous slogans, discipline codes and academic pushes only served to disenfranchise further the students and faculty who remained behind. Last spring the school was closed because of the lack of academic progress, creating even more change in the lives of its former students.

In *Ordinary Resurrections: Children in the Years of Hope* (2000), Jonathan Kozol (2000) writes of the similar struggles faced by an effective young elementary teacher in the Mott Haven neighborhood of South Bronx. Although Miss Gallombardo taught at P.S. 65 for several years, a significant salary increase, shorter commute and better working conditions eventually caused her to exchange her urban classroom for a suburban one. Kozol is careful not to blame the young teacher but regrets the impact of her loss on the children left behind. At the time of Kozol's writing, P.S. 65 experienced significant faculty turnover:

> Many of the newer teachers in the school, moreover, were not merely unprepared for what they had to face but wholly inexperienced: Of the 50 teachers on the faculty in the preceding year, 28 had never taught before; and half of them were fired or, unhappy with conditions at the school, decided not to come back in September. (p. 200)

Since 1997, the Department of Education at Wheaton College has had a partnership with a PreK-8 Chicago public school. Although classified as a neighborhood school, it provides a variety of instruction in the fine arts not generally offered in the city's schools at the elementary level, including music, art, dance and drama. Throughout this 11-year relationship, all of our elementary majors have observed at the school during their methods semester; several MAT classes have also visited. Over 50 of our students have completed their student teaching there, and 10 graduates have been hired. During this time our department has provided instructional workshops for faculty and for parents as well as offered consultative services in curriculum.

When observing in the school, our own elementary education methods students are surprised by the young age of most teachers on the faculty. Although the diverse school (87.4%

Low Income, 30.8% Limited English Proficiency, 78.9% Hispanic, 7.1% Asian, 5.3% White, 4.2% African American, 0.3% Native American) offers an educational program that boasts over 70% of its students reading at or above state standards and 80% in math, a city residency requirement impacts faculty turnover since most beginning teachers can only afford to rent in the city. When teachers need to purchase homes, they most often give up their jobs to find more affordable suburban housing. This, in turn, creates new vacancies that start the cycle again.

Although Steve is a remarkable young man whose devotion to urban education exists as much from the type of person he is as from a teacher education program, many of our graduates similarly find their commitment to social justice drawing them to high-needs schools. Several of these elementary education candidates complete their student teaching at our partnership school, living in college-provided housing in the city. Recognizing the importance of developing a cohort for support, we require a commitment from the school to place minimally four student teachers each semester. Similarly, our requirement for students to live together during this time creates time and space for them to process their experience collectively in the formal contexts of senior seminar and post-observation conferences, as well as informally over meals and nightly planning. This practice mirrors the protocol of Chicago Public Schools' Academy for Urban School Leadership, which prepares teacher candidates through an intensive graduate cohort program and then places them by teams in high-needs schools. AUSL's 95% retention rate attests to the value of this practice.

Our program goals for senior seminar, which runs concurrently with student teaching, include helping candidates collaboratively process student teaching challenges and helping candidates choose their initial teaching position wisely. Through discussion of their readings and experiences, they discover the importance of philosophical fit, stable administrative leadership and opportunities for collaborative professional development, articulating the need to temper their own romantic idealism with recognition that the first year is draining even in a highly functioning school.

Because of the potential for instability in administration and staff at high-needs schools, we encourage our graduates

who plan to work in this context to find like-minded colleagues quickly. As first year teachers, they need to develop strong professional relationships with others who share the same views about children and their capacity to learn. Nieto (2003) writes, "The school climate, and whether or not it welcomes and supports new teachers as professionals, appears to be crucial in retaining new teachers" (p. 4). Teaching in high-needs schools can only be accomplished through intensive collaboration. If our graduates do not find a welcoming network, we recommend they create it for themselves.

Donald Graves (2001), in *The Energy to Teach*, attests to the importance of finding peers to develop one's professional confidence and improve one's practice. This is particularly important for beginning teachers. He offers,

> A strong colleague is too important in your professional life to leave to chance. When pressures rise that separate teachers from regular communication, you need to work even more actively to establish a relationship with one colleague that will help you to be the teacher you envision. (p. 61)

Our emphasis on finding a professional colleague comes from counseling graduates who contacted us in their induction year for advice regarding the overwhelming challenges of their urban context. During these conversations, we asked them if any other teacher in their school viewed children and their ability to learn in the same way they did. If they answered affirmatively, we recommended that they ask this experienced teacher to mentor them. If their response was that it was another first year teacher, we still encouraged them to develop a peer coaching team. If they assured us that no other faculty member saw children in terms of their capacities rather than deficits, we recommended to most that they transfer to a different school the following year. Novices need continuous encouragement in order to see potential in their students and context.

The child attending a high-needs school is less likely to have a well-equipped classroom.

Urban schools that operate under centralized governance systems, at times, contend with directives that negatively impact the quality of classroom instruction. In a cost-cutting effort this past summer, our urban partnership school was downsized by central administration from a three-unit school at each grade level to a two-unit school. The two remaining third grade teachers, who had 21 students the previous June, began their year in September with 34 students each. One classroom enrolled all bilingual students and the other all students with IEPs, which included students with learning disabilities, cognitive disabilities and autism.

In these third grade classrooms, the need for Smart Boards and other computer technologies was replaced by the need for desks, textbooks and space to situate them without violating fire codes. Securing a working clock that was visible to everyone in the room became an instructional priority. Starting a new literacy program without sufficient leveled readers for each type of learner stressed faculty even further. This was the context in which two of our candidates began their student teaching.

Kozol (2005), in *The Shame of the Nation*, writes of similar overcrowding and lack of basic materials in several major metropolitan school systems, citing the huge disparity of per pupil spending averages between most suburban districts and their urban counterparts. But knowing that many suburban districts have twice the dollar amounts to equip their schools does not help a beginning urban teacher accomplish the daily tasks of instruction. To survive in a high-needs school, candidates must see the possibilities among the problems and advocate with peers and administrators in order to make them a reality. Parker Palmer's (1998) *The Courage to Teach* addresses this political role of teaching, calling on educators to use persuasive argument and develop a resistance mentality patterned after the women's suffrage and civil rights movements in order to create change within unjust contexts.

Our teacher education program methods block focuses on providing equity of opportunity for all learners by including economical and free resources in the core content areas. In

math methods, students are required to use egg cartons, bottle caps, dried beans, real graphs made from recycled window shades and other "nearly free" materials to teach concepts in their classrooms and to send home with students for reinforcement. Social studies and science methods focus on similarly inexpensive hands-on resources in addition to conducting web searches for free or nominally priced supplementary tools. In literacy, students learn of partnerships with government programs and local libraries, as well as grant opportunities.

All elementary student teachers begin senior seminar by reading and discussing Esme Codell's work (1999), *Educating Esme: Diary of a Teacher's First Year,* in order to understand that while teaching in a high-needs school is difficult, children can still enjoy a rich curriculum with a teacher's hard work and creativity. Kozol's latest work (2007), *Letters to a Young Teacher*, which chronicles his encouraging correspondence to "Francesca," a beginning teacher in the Boston public schools, has been added to the reading list in order to help our student teachers negotiate the first year's challenges in and outside of the classroom.

However, not every urban portrait is helpful to aspiring educators. After viewing the film, "Freedom Writers," our students were discouraged in their thinking that an effective teacher in a high-needs school could balance professional and personal life, seeing how the main character, Erin Gruwell, appears to sacrifice her marriage for her job. This one issue overshadowed the entire message of the film, especially for our newly married students.

If we show the film again, we will preface it with Bronx history teacher Tom Moore's insightful commentary in *The New York Times* titled, "Classroom Distinctions." In it he scolds Hollywood for creating an inaccurate public perception of urban education by painting a picture of teaching that requires, in his word, "martyrdom." Instead, he suggests that films intending to show a realistic depiction of urban schools should portray them as needing more teachers and more money for supplies rather than self-sacrificing heroes.

The child attending a high-needs school is more likely to have a directly instructed, drill-oriented curriculum.

This condition is most clearly articulated in Kozol's (2005) description of the impact of NCLB on minority segregated schools in the United States, *The Shame of the Nation.* His research chronicles the lack of academic challenge and imaginative learning in programs for low-income urban elementary and secondary school students. Instead, students spend an inordinate amount of time taking practice tests with the goal of improving standardized test performance and training for jobs that require low levels of skill.

The reality of a highly prescribed curriculum is the most frustrating condition faced by our urban student teachers at our partnership school. Despite significant growth in overall school achievement, intense pressure to increase the number of students who meet or exceed state standards continues. Experiential learning activities in all core curricular areas are often compromised due to the time constraint imposed by standardized testing. Teachers are urged to condense ten months of content into seven because of early spring assessments, particularly in grades 3, 6 and 8 when students must meet state standards to avoid retention. Even at the second grade level, a full year before formalized testing begins, students are required to complete every literacy unit assessment by filling in the bubbles of a multiple-choice format test in order to develop test-taking skills for the future.

Fortunately at this school, the pace is more relaxed and child-centered in non-tested subject areas such as social studies and the fine arts; but observing the effects of centralized decision-making on one particular context raises many social justice concerns from our candidates. During their methods practicum, all students in the program work in groups of three to five to identify a social justice issue within their district that has a direct or indirect impact on learning. They research the issue from all stakeholders' perspectives and then develop an action plan to remedy or alleviate the inequity based on interviews and other types of research. The plan is described first under idealized conditions and then prioritized to reflect any constraints or limitations of resources. At the end of the semester, the groups present their projects to faculty and peers

through Powerpoint and other media. Examples of these issues include requiring all ESL and bilingual students to take state standardized achievement tests in English, federally subsidized lunch programs serving same-sized portions to pre-K through eighth grade students, eliminating recess in the primary grades and reducing science and social studies instruction to increase math and reading achievement. The project is designed to help our candidates develop a sense of empowerment to address similar injustices when they begin their own professional practice.

They complete a similar, individual project at the completion of student teaching, examining a social justice issue that surfaced during their practice and then reviewing the literature to identify appropriate resources for addressing it. Examples of these projects include socially acclimating the non-English speaking immigrant to the elementary classroom, the challenge of valuing children's creativity in an era of high-stakes testing and balancing content and language learning in ESL instruction. The goal of these projects is to enable our candidates to enter the educational research community as both consumer and contributor in order to inform their own practice, as well as professional practice on a larger scale.

The child attending a high-needs school is less likely to have his parents actively participate in school events.

Research has demonstrated the importance of forging relationships with parents in order to raise the achievement of students living in poverty (Payne, 2008). Increasing parent involvement in schools that serve low-income communities has resulted not only in academic achievement gains but also greater resource equity across districts (Maxwell, 2008). But getting parents to participate in the life of high-needs schools is complex. In addition to serving many low-income families, high-needs schools are often situated within ethnically and linguistically diverse communities. At first glance, the absence of parents from daily school life may be interpreted as a lack of investment. But because of communication and cultural complexities, parents may find schools creating a subtly unwelcoming atmosphere. Shipler (2004) describes the spectrum of

relationships that parents living in poverty develop with school personnel, including parents who had such unpleasant experiences as students themselves that now, as parents, they perceive school as a hostile place to be avoided (p. 233). Kozol (2007) and "Francesca" discuss this phenomenon in their correspondence, pointing out the critical role faculty and administrators can play in setting an inviting tone to overcome these types of parental anxieties.

In addition to learning ELL strategies in each of their content area methods courses and participating in quarterly formal teacher-parent conferences during student teaching, our students study effective models to help economically and linguistically diverse families establish strong relationships with schools. Several of these models have been demonstrated by our own partnership school, including hosting an annual community block party for families to enjoy. Its faculty members seek community donations in order to create this opportunity at no cost to its participants. The school has also fostered strong home-school connections by securing grants to sponsor series of evening cultural events for families, such as a Hispanic ballet troupe and Latin music, hosted by a bilingual master of ceremonies. Following the performances, families are invited to informal conversations over catered refreshments. Thirdly, several teachers at the school have hosted Family Reading Night and Family Math Night to help Spanish-speaking parents develop confidence when interacting with their children in academic activities. From these models, our candidates observe several possibilities for enhancing parental participation in every kind of school.

Maintaining a partnership with an urban school over 30 miles away can be challenging at times in terms of providing a continuous college presence and ensuring that student teachers there receive as many opportunities to grow professionally as their suburban counterparts. The costs of sustaining a reciprocal relationship weigh heavy on faculty in a small liberal arts college education department and on its student teachers who must live away from campus in order to engage in a holistic urban experience. But the return of being able to observe and work with practitioners and children in an effective high-needs school far exceeds this investment, benefiting not only those

who learn on site but also those who hear of these experiences through class discussion and informal conversations.

Although strategies for improving teacher retention in high-needs schools encompass many factors, addressing the critical components of leadership, resources, pedagogy and parental involvement can do much to give beginning teachers staying power. In preparing the next generation of teachers for high-needs schools, AILACTE institutions can develop a sense of agency within their candidates to meet these challenges. Through developing small supportive networks of like-minded colleagues, their graduates can create collaborative communities even when few formal structures are provided by school leadership. By engaging in critical and innovative thinking along with knowledge of access to free and economical materials, candidates can acquire resources for their students even when supplies are limited within their districts. In developing sound pedagogical practices and research methodologies, liberal arts graduates can document and articulate the effectiveness of their own instruction and keep abreast of educational studies to improve it. Finally, from perspective-taking gained through coursework and clinical experiences, liberally educated beginning teachers can build bridges to parents in order to give them voice and forge strong home-school partnerships that are vital to student achievement in high-needs schools.

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Impact of Self-Directed Group Study Projects on Social Justice Teachers' Induction-Year Experiences

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Abstract

This paper presents findings of an induction year study of teachers trained in a graduate level social justice teacher education program. At the conclusion of the one-year intensive teacher preparation program, students participated in self-directed group study projects in which they identified and researched critical questions and issues related to successful teaching and learning in diverse communities and teaching for social justice. The pre-service teachers worked collaboratively to investigate self-selected topics of interest such as humanity and care of students and issues of equity and differentiation. The results of the collaborative study projects offered practical suggestions for successful teaching and learning in diverse environments and were compiled on a professional re-source website to support the teachers during the induction year. This paper describes the exemplary practice of self-directed inquiry projects and presents findings related to the impact of this collaborative inquiry experience on the study participants' first year of teaching.

Introduction

School reform efforts around the globe include education agendas focused on the successful recruitment, preparation and retention of a well-qualified teaching force. Such efforts are essential to ensure opportunities for all citizens and to advance the well-being of the entire community. In the Unites States, recruiting and retaining quality teachers is a persistent and ongoing challenge. At a time "when the need for good teachers and good teaching is unprecedented, America is experiencing a shortage of qualified individuals prepared to take on the challenges of the profession" (Certo & Fox, 2002, p. 57).

Over the past 15 years, teacher demand has increased and funding inequities have grown (Darling-Hammond, Holtzman, Gatlin & Heilig, 2005). At the same time, research suggests that "teacher supply has not kept pace with the demand in all schools, districts and subject areas" (Johnson, Berg & Donaldson, 2005, p. 5). As many urban and poor rural districts struggle to find qualified teachers, it is clear teacher supply is unevenly distributed across schools, districts, regions and subject areas (Darling-Hammond, et al., 2005; Johnson, et al., 2005). Cause for even more concern, a recent study conducted by The Project on the Next Generation of Teachers at Harvard University suggests high rates of teacher turnover in U.S. public schools and higher rates of turnover in schools serving larger portions of low-income and minority students (Johnson, et al., 2005). Finally, the rate at which new teachers are leaving the field heightens the issue. Approximately forty-six percent of teachers nationwide leave the profession within five years of service (Ingersoll, 2002), and even higher rates of attrition exist among teachers serving in urban districts and more disadvantaged schools (Ingersoll, 2001).

Research suggests that specially designed social justice teacher education programs, as well as ongoing professional development and support, contribute to the retention rate of teachers committed to social justice and the transformation of urban poverty schools (Cooper, 2006; Quartz, 2003). Although these progressive educators often face significant challenges in their efforts to teach for social change, social justice teachers have been described in the literature simply as "those who care about nurturing all children and who are enraged at the pros-

pect of students dying young, going hungry or living meaningless and despairing lives" (Kohl, 2000/2001, p. 1). These teachers often create social justice classrooms (Bigelow, Christensen, Karp, Miner & Peterson, 1994) that work toward the creation of a more just society (Freire, 1970). Research conducted by the University of California Los Angeles Center X, an urban education professional research institute and forum, suggests that the creation of a "community of practice" can be helpful in developing and retaining social justice teachers, but these communities must be specifically tailored to the needs of the particular teachers (Quartz, 2003).

Description and Purpose of the Study

The present study examined the impact of a collaborative inquiry project on first year teachers trained in a graduate level social justice teacher education program. Seattle University (SU) is a private Jesuit Catholic university located in metropolitan Seattle, Washington, in the northwest region of the United States. The university is situated in an urban environment and houses one of few teacher education programs in the area. The Master in Teaching (MIT) Program is a full-time graduate level program and the only teacher education program offered at the university. A values-based teacher education program, Seattle University's MIT is an intensive, one-year teacher education program with an emphasis on social justice in schools, equity and diversity, advocacy and service. The aims of the MIT Program are reflective of Seattle University's mission to "empower leaders for a just and humane world." The university's mission is grounded in a legacy of Catholic social teaching rooted in a foundational belief in "the sacredness or dignity of the human person" (McBrien, 1995, p. 281). Another core principle of Catholic social teaching reflected in both the university's mission and the MIT Program's focus on social justice and diversity is the belief that all people have a right and a responsibility to participate in society and work collectively toward the common good and well-being of all of mankind, especially the poor and vulnerable (United States Conference of Catholic Bishops, 2005; Curran, 2002).

In an effort to retain new teachers who were members of the Fall 2006 cohort of the Master in Teaching Program, a collaborative inquiry project was designed and implemented with the intent to develop the type of "community of practice" essential for the retention and development of social justice teachers (Quartz, 2003). At the conclusion of the one-year intensive teacher preparation program, MIT students participated in self-directed group study projects in which they identified and researched the critical questions and issues related to successful teaching and teaching for social justice. Throughout the final weeks of the program, immediately prior to their first year of teaching, students worked collaboratively to investigate self-selected topics of interest such as humanity and care of students, motivating students who don't seem to care and issues of equity and differentiation. The results of the self-directed group inquiry projects offered practical teaching tools, strategies and best practices for successful teaching and learning and teaching for social justice in diverse classrooms and communities.

The students' collaborative inquiry projects were compiled and made available to all students on a professional resource website to support the teachers during their first year of teaching. In addition to the professional resource website to support both the teachers' learning and their students' learning during the first year, the preservice teachers also decided to create a closed online discussion blog to maintain their professional community and social justice support network. The purpose of this research study was to investigate the impact of the collaborative inquiry project on the induction year experiences of the teachers. This paper describes the exemplary practice of self-directed group inquiry projects and presents findings related to the impact of this collaborative inquiry experience on the study of participants' first year of teaching.

Theoretical Framework

Socially just teaching has been defined in the literature as a teacher's effort to transform unjust policies and employ pedagogies that improve the educational and life opportunities of traditionally marginalized and underserved students (Chubbuck

& Zembylas, 2008; Cochran-Smith, 2004; Ayers, Hunt & Quinn, 1998; Ladson-Billings, 1994). Teacher education for social justice operates from the assumption that "education's goal is successful participation in a democratic society, [therefore], learning includes inquiring into the social and political structures that both support and deny access to power and opportunity within that society" (Rodgers, 2006, p. 1269). Teacher education models operating from a social justice perspective require practicing and prospective teachers to critically analyze the structural inequalities that exist in schools (Nieto, 2000; Ladson-Billings, 2000). Nieto (2000) encourages authentic commitments to preparing teacher candidates and inservice teachers for socially just teaching and defines specifically the practices that accompany such a commitment:

> A concern for social justice means looking critically at why and how our schools are unjust for some students. It means analyzing school policies and practices—the curriculum, textbooks and materials, instructional strategies, tracking, recruitment and hiring of staff and parental involvement strategies—that devalue the identities of some students while overvaluing others. (p. 183)

According to Nieto (2000), the use of a social justice perspective in teacher education as a major lens for viewing the education of students of all backgrounds is essential. Nieto contends schools and colleges of teacher education should place "equity front and center" (p. 180) and transform current practices in ways that will help prospective teachers learn how to develop educational environments that are fair and affirming, promoting the learning of all students.

These progressive teacher education reform practices present a sharp contrast to traditional models of teacher education that focus on the technical dimensions of teaching rooted in assumptions that knowledge is static, good practice is universal and content knowledge is sufficient preparation for teaching (Cochran-Smith, 2004). Transformative social justice teacher education models "integrate the technical dimensions of teaching with the moral, cultural and political" (Quartz, 2003, p. 102). These models view knowledge as constructed and fluid,

good practice as contextual and teaching as an intellectual activity (Cochran-Smith, 2004). Teacher education models employing a social justice lens require acknowledgement and critical analysis of the social and environmental injustices that affect teaching and learning, and ultimately, the opportunities available to all students.

Finally, research on best practices in teacher education suggests the importance of collaboration, inquiry, meaningful experiences connected to preservice teachers' work in schools and the exchange of knowledge among educators. According to Darling-Hammond (1998), model teacher development programs are:

1. experiential, engaging prospective teachers in concrete observations and tasks;
2. collaborative, involving sharing of knowledge among educators;
3. grounded in inquiry and experimentation;
4. connected to and derived from teachers' work with students;
5. sustained and intensive, supported by modeling, coaching and problem solving; and
6. connected to other aspects of school change.

The key principles in Darling-Hammond's framework reflect current research on the development and retention of teachers with social justice commitments. Research on social justice teachers suggests that the creation of a "community of practice" specifically tailored to the needs of the particular teachers is essential (Quartz, 2003).

Methods

The self-directed group study project or "collaborative inquiry" project took place during the capstone course of the MIT Program, TEED 540 Reflective Teaching Seminar, Summer Quarter 2007. There were 23 middle and high school preservice teachers from the Fall 2006 MIT Cohort enrolled in the four-week seminar which served as the final experience in the one-year graduate level teacher preparation program.

Immediately prior to this capstone course experience, students completed a three-month student teaching internship experience in a local middle or high school in the Seattle area. On the first day of the capstone seminar, students were asked to reflect on their student teaching experience in a structured way to make sense of the experience. They were asked to consider MIT Program topics and themes (i.e., teachers as leaders for change, providing equitable teaching-learning opportunities, respecting and affirming student and family diversity, student advocacy and social action) in relationship to their three-month, intensive internship experience in schools.

To introduce the collaborative inquiry project in which students would participate over the next four weeks, students were asked to participate in a "critical questions and critical issues" exercise. Reflecting on their most immediate, sustained internship experience, students were asked to generate questions meaningful to their experiences as beginning social justice teachers. Students recorded and read aloud to the group their critical questions, issues and challenges. As a group, we recorded all questions and issues articulated, looked for similar themes and condensed the list of essential questions related to effective teaching and learning and teaching for social justice. Using the questions that emerged from the "critical questions and critical issues" exercise, the students then participated in a four-week self-directed group study project in which they researched one critical question or issue/topic of interest related to their future success as beginning social justice teachers. Teaming with four or five of their colleagues, students selected one of the following five questions/topics of interest the cohort generated as a result of the critical reflection activity:

- How Can I Demonstrate Humanity and Care of Students? (Humanity/Care of Students)
- What Are Some Ways to Motivate Students Who Don't Seem to Care? (Student Motivation/ Boredom)
- How Do I Differentiate High School Curriculum and Ensure Equitable Teaching-Learning Experiences? (Differentiating the High School Curriculum)

- It is Important to Create Meaningful Lessons and Units of Study—Where Do I Begin? (Meaningful Planning and Assessment)
- What Are Some Essential First Week Tips to Establish a Safe, Equitable and Effective Learning Environment? (First Week Tips to Support Student Success)

Throughout the final weeks of the program, prior to their first year of teaching, students worked collaboratively to investigate the self-selected study topics. The results of the self-directed group inquiry projects offered practical strategies for successful teaching and learning in diverse classrooms and communities and were compiled on a professional resource website to support the teachers during their first year of teaching. The following is a selection taken from the rationale section of one study group's self-directed project (collaborative inquiry) plan:

> As social justice educators, we are concerned with issues of equity for our students, their families and communities. Between 1993 and 2002, the number of high schools who graduated less than half of their ninth grade class increased by seventy-five percent (Kozol, 2005). On average, high school dropouts receive lower lifetime earnings, fewer opportunities and experience other types of injustice and inequalities. While working to close the achievement gap, a significant part of providing quality service to students, families, schools and communities is related to humanity and genuine care for the *lives* of our students.

In addition to the professional resource website to support both their learning and their students' learning during the first year, the preservice teachers also decided to create a "closed" blog (private online discussion forum) via the Internet to maintain their professional community and social justice teacher support network. All students joined the online, electronic discussion community via the Internet blog and each agreed to the following actions throughout their first year of teaching: 1) periodically access the collaborative inquiry project resources

via the professional website, 2) informally connect and offer support via the Social Justice Teachers Network (SJTN) Internet blog and 3) attend at least two social gatherings during the school year to physically check-in with their peers, reconnect and renew their teaching-learning commitments.

Data Analysis

The present study utilized qualitative research methods. Methods included interviews, teacher narratives and open-ended surveys (Glesne, 1999). Qualitative data analysis involved a constant comparative process of examining research transcripts to identify categories, concepts and ideas. As data were classified, they were compared across categories. Through this process, recurrent patterns were discovered and grouped into major themes that form the assertions of the study. The rationale for this inductive method was to ensure that participant voices and ideas determine the categories, patterns and, ultimately, the study findings (Emerson, et al., 1995; Erickson, 1986).

Data sources in the present study included each of the following: 1) individual and focus group interviews during the 2007-08 induction year, 2) surveys on the use and impact of teaching-learning resources produced from the collaborative inquiry project (i.e., curriculum resources, teaching strategies and resources/ideas for creating positive and caring classroom environments that promote advocacy and justice and respect and affirm the unique backgrounds and experiences of all learners) and 3) teacher narratives via the electronic discussion forum postings to the Social Justice Teacher Network (SJTN).

Study Findings

Over the course of the school year, teachers used the professional resource website and the online discussion blog in different ways. Teachers reported using the website more in the beginning of the school year and when starting new classes or new instructional units as a way of remembering effective teaching techniques and curriculum ideas. As the teacher

became more comfortable in the classroom and created her own management systems and instructional styles, the website had less of an impact. The online blog was used frequently throughout the school year. Teachers found it meaningful for both the sense of camaraderie it provided and also its usefulness as an effective and safe "sounding board" that was out of the school building.

One of the major pitfalls for first year teachers is a sense of isolation. Users of the online discussion blog reported feeling confident in knowing where to go for reassurance or advice. Study participants consistently reported this helped them feel less isolated. In the first year, many of the teachers faced issues with parents, students or workload that had not been experienced during the internship or teacher preparation process. The blog served as a reminder that all of the teachers were experiencing and problem-solving those issues in different ways. Although many of the school districts had mentorship programs, new teacher constituent groups and new teacher trainings to support the first year experience, the blog provided a much more immediate and a lower-stakes outlet. It was a place that was "not subject to the politics" of districts or schools. Through the online blog, teachers felt they had the freedom to express frustrations and celebrations, to leave those in a safe place and get back to teaching.

The self-directed group study project that culminated in the professional resource website served to be the backdrop against which the teachers created their own unique teaching styles and developed their classroom communities. Many of the topics addressed—student motivation, meaningful planning, humanity and care of students, differentiating instruction—are challenges for even the most experienced teacher. However, the first year teachers in the study reported feeling one step ahead at the start of the school year having had the opportunity to revisit and conduct in-depth investigations of these critical teaching-learning issues during the weeks immediately prior to the first year experience. Of greatest value were "immediately available" curriculum ideas and teaching strategies aligned with the teachers' social justice commitments. Many teachers reported that they did not find the reality of their classroom to mesh well with some of the initial research considered in the collaborative inquiry experience. However,

teachers reported that their efforts to build positive classroom communities and establish equitable, just and effective classroom practices reflected: 1) the knowledge and skills gained as a result of the "critical issues" group investigations, and 2) the deeper and more "conscious" social justice commitments that emerged out of the collaborative study projects.

Further, the capstone research provided common language that could be used among all of the teachers on the online discussion blog and also within and between departments at their school. Exposure to the research and best practices on differentiation of instruction provided the teachers effective, research-based strategies for working with ELL and special education departments to promote successful learning experiences for every student. The concept of meaningful planning was especially important to the first year teachers who were responsible for writing a centralized curriculum. Even as first year teachers, they felt they had a great deal of practical knowledge of research-based practices to contribute to the discussion around curriculum issues related to their specific disciplines.

Reflecting on the impact of participation in the community of practice over the course of the year, one teacher who struggled with what she viewed as unfair tracking practices in her large urban high school reported:

> As I began to consider how I could use my skills to enhance the school community as a whole, I had an established professional group of peers to bounce ideas off of and to consult with about the big issues of equity and justice we were taking on. It helped to gain perspective on a particular issue in my school [unjust tracking practices] from an outside lens. I felt empowered coming into school meetings with administration and experienced teachers because I felt confident about the suggestions and positions I had to contribute about dismantling a tracking system that was not serving students well. Without the blog, I certainly would have gone to those meetings because I care and am interested, but I probably would have been a silent observer.

As a result of participation in several school and department planning meetings, at the end of the year, the teacher was asked to take a leadership role as her department began to address the long history of unsuccessful tracking at the school. She is confident that some positive changes will be made at the school and proud to have the opportunity to work to improve current school practices related to this particular issue of justice about which she cares so deeply and passionately.

Overall, the first year teachers surveyed reported an increased sense of connection and a feeling of competency in their teaching. At the conclusion of the study, all teachers who participated in the online blog and utilized the Social Justice Teachers' Network professional website—the vast majority of MIT students in the present study—were preparing to enter their second year of teaching. Many of the teachers involved in the online communication blog are developing teacher leaders. Some are moving into school leadership positions or have been asked by school administration to become involved in projects that support students who are often left behind. For example, three of the study participants will teach and/or participate in AVID and academic literacy classes. The Advancement Via Individual Determination (AVID) Program is a pre-college program that aims to make college preparatory curricula available to all students, especially the least served students, in an effort to increase college access and participation among historically marginalized groups. Academic literacy courses also support and empower underserved students by helping them increase their academic skills and become more confident in their abilities as learners.

Finally, all of the participants expressed a belief that their connection to a professional community with shared values, commitments and experiences encouraged each of the teachers to renew their commitments to socially just teaching and continue to take on the challenges and risks associated with teaching for change. Most reported plans to continue their communication with colleagues through the online discussion blog as second-year challenges and celebrations emerge. As one teacher reported, "This job is just too big to do by myself. I need to have support coming from every place I can get it so I can support my students everyday." According to the teachers who participated in the study, the self-directed project compo-

nent of the MIT capstone experience provided important keys to finding and developing the professional supports to better enable them to serve well diverse students, families and communities.

Conclusions

Education is a vehicle for encouraging participation in democratic processes and creating and promoting social justice (Nager & Shapiro, 2007). Regarding the purpose of schooling and the shared goal of advancing the well-being of the entire community, these ideals are widely accepted among researchers, practitioners and teacher educators in the United States. The principles of social justice and democratic education must also be applied to teachers. Research shows high-quality preparation, induction and mentoring programs lower attrition rates for new teachers and can enhance teacher effectiveness (Darling-Hammond, 1997; 1999) while "poor preparation and lack of support for newly hired teachers often undermine their willingness to remain in teaching and to develop their knowledge and skills" (Bolam, 1995, in Darling-Hammond & Berry, 1999, p. 255).

As findings of the present study suggest, applying principles of social justice and democratic education to early career teachers is not only an investment in their personal and professional growth, but also a way to help them resist isolation and burnout. In turn, this increases opportunities for the implementation of best practices that support and advance student learning and the growth and strengthening of communities. A key premise of any program of teacher education must be that it cannot be complete (Nager & Shapiro, 2007). At the end of any given teacher preparation program, preservice teachers are armed with vast amounts of knowledge gained from their program, their teaching internship experiences and their best intentions and hopes for successful entry into the professional world of teaching. Examining the impact of a collaborative inquiry project on teachers' induction year experiences, this paper offers ideas on how to support and encourage communities of practice in teacher education programs that have lasting

effects beyond the tenure of teachers' formal training and into their first years of professional practice.

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