Transformation and the Quest for Excellence: Professionalization of a Teacher Preparation Program at the University of Missouri

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A profession has been defined as a calling requiring specialized knowledge and intensive academic preparation. At the University of Missouri-Columbia, specialized knowledge and intensive academic preparation have been the hallmarks of our program since its inception in 1839. The University of Missouri-Columbia (MU) is the flagship and land-grant institution of the four-campus University of Missouri system. It is distinguished as one of only 30 public institutions of higher education that has achieved membership in the Association of American Universities (AAU) as well as a Doctoral/Research-extensive ranking from the Carnegie Foundation for the Advancement of Teaching. The MU's College of Education is the oldest teacher preparation institution west of the Mississippi River and the first state university to raise teacher education to the collegiate level. Since its inception, the College of Education has been based on current issues in teacher education and our work is driven by research conducted in the field. The goal of this College is to provide programs based on what we know about learning, teaching, and schools.

Reform Initiatives

Beginning in 1993–94, the College undertook an extended process of involvement in the state of Missouri's educational reforms and revitalization anticipating the needs of schools and school personnel for the 21st century. Critical to this process was the engagement of College faculty and MU College of Education students with colleagues from MU's College of Arts and Science, practitioners from Missouri's P–12 schools, and leaders from the Department of Elementary and Secondary Education (DESE). The College promoted systemic reform by facilitating a unique Futures Search process where civic and business leaders joined P–16 educators in exploring the innovations needed for our state's future civil and economic prosperity. Senate Bill 380, Missouri's Excellence in Education Act of 1990 led to a new set of learner standards for K–12 students (The Missouri Show Me Standards, adopted in 1993), curricular frameworks, and performance-based state assessments (Missouri Assessment Program or MAP). This work culminated in substantive P–12 assessment reform.

At the state level, and during the initiation of the P–12 reforms, teacher educators from around the state created a new set of teacher education standards, Missouri Standards for Teacher Education Programs (MoSTEP). The standards, designed to support the state's P–12 reforms, were based substantially on the general competencies identified by the Interstate New Teacher Assessment and Support Consortium (INTASC, 1992) as well as subject-specific competencies identified by various national professional organizations. These professional education standards for beginning teachers were put into place in September 1999.

Hallmarks of these professional programs parallel those in the P–12 schools—that is, programs must be standards-based and utilize performance assessments. Professional certification portfolios in which candidates are expected to demonstrate competence are now required. In addition, both P–12 school districts and professional education programs are evaluated every five years for purposes of accreditation. A major focus in the evaluation of districts is student performance on the MAP; for professional programs' certification, candidate portfolio performance and national Praxis examination scores are key data points in the accreditation process.

The College of Education also began a critical review and redesign of its teacher preparation program and its certification programs for other school professionals. Through a variety of processes and activities the College collaboratively constructed the vision and mission of its work. These processes were influenced by the emerging educational reforms

being developed around the country and by Missouri's reforms in P–12 schools and their implications for teacher education programs.

In response to the challenges before the state and our own College, the College of Education faculty worked from 1994 to 1996 on the design of the initial teacher preparation program. The new program that was developed through this process resulted in an integrated, interdisciplinary approach, replacing a program that had been in place in the college for a number of years. In the old program, individual candidates were admitted to professional standing strictly based on GPA (2.75); ACT (22); and general education test scores. Candidates encountered faculty in independent courses selected from a required course list, with each course having a different topic and emphasis. Candidates were then assigned individually to available field placements. Each student spent approximately 160 hours in field experiences before their student teaching, which lasted 8–10 weeks. Candidates advanced through the program on the basis of grades attained in individual courses. Successful completion of courses was assumed to produce a pre-service candidate with a high level of readiness to teach.

The new integrated curriculum, in contrast, was designed around a set of professional competencies (e.g., learning, assessment, reflection, inquiry, etc.) and performance standards with the values, knowledge, and action being developmental and integrated throughout the teacher education program. The new teacher education program curriculum was integrated cooperatively among the disciplinary areas and subjects; it took a combined form of correlated and interdisciplinary approaches. It is interdisciplinary because different subjects and courses were combined into a single course or a series of connected courses (combining theories and applications), and it was a correlated curriculum because the concepts in separate courses and subjects were linked (creating connections among different subjects) to achieve professional competency standards. In addition to GPA, ACT, and general education test requirements, a mid-preparation portfolio was added as part of the basis for advancement to professional standing. Field experiences increased to over 400 hours prior to student teaching. Student teaching was transformed from an 8–10 week experience to a 16-week semesterlong internship.This process retained and expanded the partnerships and collaborative efforts of earlier work, resulting in the formation of the MU Partnership for Education Renewal (MPER) in 1996.

Partnership and simultaneous renewal, as described in John Goodlad's work and demonstrated through the work of the National Network for Educational Renewal (NNER), stand at the foundation of the MU Partnership for Educational Renewal (MPER). MPER is a partnership among the Colleges of Education and Arts and Sciences, 23 school districts, and the Missouri state Department of Elementary and Secondary Education (DESE). The Partnership draws heavily upon Goodlad's approach to simultaneous renewal (Goodlad, 1990; Goodlad et.al. 1990). At the heart of this approach to collaboration between school districts and universities is a collaborative arrangement between equal partners working together to meet self-interests while solving common problems (Goodlad, 1990). The lynchpins in the simultaneous renewal process are the individual partner schools identified by the school districts and designed, in collaboration with the University, with two functions: to serve as exemplary sites for the preparation of future educators and to increase the performance of P–12 students.

Design Principles of the Teacher Development Program (TDP)

The following sections present a discussion of the four design principles adopted by the faculty, which serve as the foundation of the program: (1) organizing programs around the problems of practice, (2) creating opportunities for inquiry and reflection, (3) utilizing developmental approaches to performance assessment, and (4) focusing on what educators need to value, know, and be able to do. These design principles are intended to support the development of effective educators who are reflective and inquiring professionals.

These four design principles are considered fluid and interrelated. The community of professional educators provides the feedback loops to each of them. This model then allows for the continued input of the profession, responsiveness to the current problems of practice, and the incorporation of new knowledge into the preparation and practice of current and future professionals

Design Principle 1: Programs at every level are designed around the problems of practice.

There is little support in the literature for abstract, decontextualized lectures about general theories and teaching-learning practices in terms of having a substantive impact on how novice educators actually perform in complex situations. Rather, there is much support for providing instruction about pedagogical and management knowledge and practices in a contextualized and situation-specific fashion (Brown, Collins, & Duguid, 1989; Cognition and Technology Group, 1990). Candidates' personal knowledge or schemata about learning, development, educators' roles, and schooling are the initial and idiosyncratic cognitive anchors for training. Faculty assist candidates in the transformation of that knowledge base.

Utilizing a variety of approaches such as cases, modeling, investigative scenarios, and lectures about the problems of practice, instructors provide input about declarative, procedural, and conditional knowledge needed for effective practice. Instructional input provides contextualized information in a holistic manner (as if the student could perform the entire instructional or management process), and the instructor provides scaffolding in a dialogue with candidates to more fully examine their knowledge and skills (Anderson & Armbruster, 1990). Early in programs, instructors begin to add new perspectives or knowledge to candidates' existing cognitive anchors and create a framework for subsequent integration, transfer, and use by the student.

With these new, tentative cognitive anchors, candidates engage in guided observational activities regarding learners, development, and school interactions. Reflection, both individual and group, guided by the instructor through scaffolding dialogues, as suggested by Brandt (1990), then allows for a re-anchoring process where older personal schemata begin to be transformed into more professionally-oriented schemata.

Design Principle 2: Programs must provide opportunities for reflection-in-action and reflection-about-action among novices and experts.

This second design principle operates as a key component of the CoE's philosophy. The value placed in this design principle, coupled with the goal and mission of renewal for Missouri's public schools, provides the framework for the founding, promoting, and working relationships in the MU Partnership for Educational Renewal. Our professional education programs partner with P–12 schools to simultaneously support the preparation of new school professionals, extend the professional development of practitioners, and sponsor collaborative research and inquiry. Coordinating between college-based and field-based experiences for beginning educators also helps practitioners deepen their knowledge by becoming mentors, adjunct/clinical faculty and co-researchers with both pre-service professionals and college faculty, thereby creating and sustaining an extended community of educators. Educator preparation is "co-owned" or is the joint property of the university and the schools.

In general, over the course of the program, simulated and mediated experiences fade and field-based experiences increase. These field-based experiences are interactive, extended, and regular. They provide experiences in as diverse a range of environments as possible, e.g. districts/schools of various sizes, settings within communities with varied socio-economic status, settings with ethnic and racial diversity, and settings implementing inclusive practices for students with disabilities.

We believe that professional practice involves judgment and wise action in complex, unique, and oftentimes uncertain situations. Under these conditions three types of professional knowledge and competence are needed: the specialized bodies of knowledge pertinent to the profession, practical knowledge and competencies, and reflective competencies (Schōn, 1987; Harris, 1993). These are the knowledge bases of the reflective practitioner.

There are several definitions of reflection found in the literature, most of which related to Dewey's inquiry-oriented teacher education concepts (Dewey, 1933). Most definitions typically include three dimensions: a) an inquiry orientation, b) an inquiry process, and c) the nature of educational phenomena. These dimensions, as they relate to the definition of reflection, are discussed below.

The first dimension, an inquiry orientation, suggests that a reflective professional withholds judgments

concerning a particular event to consider available alternatives to established practices. For example, reflective teachers question aspects of teaching that are generally taken for granted, including their own beliefs and assumptions about the educational process.

The second dimension, an inquiry process, suggests that a reflective teacher uses problem-posing and problem-solving processes when considering alternatives to established teaching practice. When applying this process, the reflective professional inquires into the exact nature of problematic situations, identifies alternatives to taken-for-granted practices, tests the alternatives in the classroom situations, and monitors the results of each test. Thus, reflective practice involves insight and action that is focused both inwardly at professionals' own practices (and the practices of colleagues) and outwardly at the social conditions in which these practices exist.

The specific nature of the inquiry process depends, to a great extent, upon the perspective taken on the third dimension, the nature of educational phenomena. Educational phenomena can be viewed from a limited perspective (e.g., focusing on curricular topics and instructional techniques) or from a broader perspective that also includes the social nature of education and the role of education in meeting the needs and purpose of humanity. The reflective professional is viewed as one who not only addresses what should be included in the schooling process, but also considers important issues involved in relationships (e.g. teacher/student).

The model of inquiry embraced within our program has four phases:

1. Questioning Phase—faculty create a culture that immerses candidates in situations of learning and teaching and facilitates candidates' growth in recognizing problems of practice, in asking increasingly sophisticated questions, in uncovering their epistemic beliefs, etc.;
2. Collaborative Problem-Posing Phase—faculty facilitate candidates' growth in learning to turn their questions into problems for research, in data gathering methods, etc.;
3. Data Collection and Analysis Phase—faculty facilitate candidates' growth as gatherers of artifacts and as active reflectors on the meaning of their artifacts; and
4. Presentation Phase—faculty facilitate candidates' growth as communicators of their findings and analysis.

Design Principle 3: Evaluation of candidates must include assessment of performance in complex situations of practice, appropriate to the practitioner's level of training.

Recent reforms call for more complicated performance assessments to evaluate the learning of both P–12 students (NCLB) and developing professionals (Title II). While inputs such as instruction and training are still viewed as important, evidence for progress or success decidedly focuses on learning outcomes both for schools and for professional preparation programs.

The primary focus of the call for performance assessments has been on the development of the professional portfolio. For professional candidates the structure and processes of completing a portfolio can be used as developmental guideposts with benchmarks. Candidates can envision and anticipate what they will need to learn and how they will be expected to account for their learning. Candidates must understand from the very beginning the purposes and rationales as well as the technical expectations for their portfolio.

Portfolios are the repository of evidence of candidate understanding and mastery of the knowledge, skills and dispositions of their professional discipline. In our program, embedding performance assessments in every course provide multiple and ongoing opportunities for collection of artifacts and model the types of assessments learning professionals will be expected to use in reformed schools. Synthesizing and connecting course learning and field learning are facilitated through the developmental portfolio, thus anchoring theory and practice and vice versa. In addition, portfolio construction and revision facilitates the reflective process. Evaluations of student portfolios are used to enhance shared visions, explore standards, and create organized experiences that foster and maintain local, state, and national standards and goals.

Design Principle 4: What effective educators need to value, know, and be able to do.

The recent development of professional standards provides a consensus of what can be regarded as the most important aspects of teaching. These standards from the National Board for Professional Teaching Standards (1987), the Interstate New Teacher Assessment and Support Consortium (INTASC, 1991), our Missouri Standards for Teacher Education (Mo-STEP) and recently adopted unit standards by the National Council for the Accreditation of Teacher Education (NCATE, 2000), serve as the basis of our program standards. These standards expect that the pre-service teacher

1. understands the central concepts, tools of inquiry, and structures of the discipline(s) within the context of a global society and creates learning experiences that make these aspects of subject matter meaningful for P–12 students;
2. understands how P–12 students learn and develop, and provides learning opportunities that support the intellectual, social, and personal development of all students;
3. understands how P–12 students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners;
4. recognizes the importance of long-range planning and curriculum development and develops, implements, and evaluates curriculum based upon P–12 student, district, and state performance standards;
5. uses a variety of instructional strategies to encourage P–12 students' development of critical thinking, problem solving, and performance skills;
6. uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation;
7. models effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom;
8. understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner;
9. is a reflective practitioner who continually assesses the effects of choices and actions on others;
10. fosters relationships with school colleagues, parents, and educational partners in the larger community to support student learning and well-being; and
11. understands the theory and application of technology in educational settings and has adequate technological skills to create meaningful learning opportunities for all P–12 students.

Program Organization

The Teacher Development Program consists of four phases. These phases provide checkpoints for the major assessments and provide the opportunity to remediate and assist students that have not met phase criteria. Both diversity and use of new learning technologies are overarching themes that are integrated throughout each phase of the program.

Phase I: Inquiry into leaning, development, and assessment

Phase I comprises the first set of professional education coursework, combined with general education coursework and selected disciplinary coursework. Entry into this phase is determined by admission criteria to the University of Missouri. Candidates that enter the College of Education as incoming freshman must maintain a grade point average of 2.5 during the freshman year to remain in good standing in the College. Sophomore candidates are required to maintain a 2.6 grade point average and by the end of Phase I candidates must meet a 2.75 grade point average to be eligible for entry into Phase II. In addition to grades, candidates must meet the ACT requirement of 22, complete the College Basic Academic Subjects Examination (CBASE) with a score of 235 or higher on each sub-test and complete a mid-preparation portfolio based on the Missouri Standards for Teacher Education Programs. During their professional education coursework in Phase I, candidates engage in individual field

placements and are evaluated by the field supervisor at each individual site. All of the above assessments are designed to insure that each candidate has the necessary knowledge, skills, and dispositions to progress in the program.

Phase II: Inquiry into content pedagogy and schools, community and society

The first transition point occurs when candidates are ready to apply for Phase II of the program. Applications for Phase II of the program are reviewed and entered into a database by advising staff. Depending on the circumstances, candidates are either denied admission to Phase II, allowed to re-take or re-submit scores on examinations, assigned to a mentor for assistance with portfolio or placed on conditional progression. Contracts for conditional progression are completed by the student and signed by an academic advisor. Most contracts are only allowed for one semester; all deficiencies must then be addressed and satisfactorily completed in order for the student to continue coursework in Phase II of the program.

All candidates must maintain a 2.75 grade point average as stipulated by the faculty of the college, and complete all professional education coursework with a grade of "C" (2.000) or higher as required by the state of Missouri. In addition, candidates must successfully complete all field coursework through evaluation by the field supervisors as outlined above. Fieldwork that is deemed unsatisfactory requires a candidate to work with his/her faculty advisor and/or field supervisor to review unsatisfactory work and/or performance and either re-take the course or complete additional hours to reach satisfactory standing.

Candidates also complete an electronic interview portfolio, designed to provide an overview of their philosophy, knowledge, and skills. This interview portfolio is reviewed by an instructional team for the final course in Inquiry into Schools, Community, and Society. An additional component of this course requires all candidates to interview with the Principal at their designated Internship site. This interview, with a report and evaluation, is also reviewed by the team and must be successfully completed prior to completion of the course.

Phase III: Internship in partnership school

The second transition point occurs when candidates are ready to move from Phase II to Phase III of the program. Candidates again make application for the internship semester. Course requirements must be completed, grade point averages must be maintained, and candidates must demonstrate readiness for a semester internship by successful completion of all Phase II clinical work. In coordination with course faculty, instructors, and mentor teachers in partner schools, field experiences are connected to all inquiry courses in curriculum and pedagogy. The supervising instructor is responsible for evaluating candidates' performance in the field.

The performance-based internship evaluation is organized around the 10 Mo-STEP quality indicators (listed under Principle 4) for initial teacher candidates. Candidates are reviewed at the mid-point of the 16-week internship, and again at the end of the internship. Supervisors provide seminar support as does the portfolio office in the preparation of the final portfolio required by the College prior to recommendation for state certification.

In addition to the comprehensive program portfolio, candidates must successfully complete the internship, again with a grade of "C" (2.000) or higher, and meet all additional program requirements for graduation. Candidates must also successfully meet the scores required by the State of Missouri for the PRAXIS II Subject Assessments and Specialty Area Tests. Candidates must meet or exceed the score established by the State of Missouri for the content knowledge or specialty area in which the candidate is seeking certification. The final point for candidate assessment, prior to graduation, is the culmination ofPhase III that includes the final program portfolio designed to address all state standards, a comprehensive field assessment, also based on the state standards, and a complete transcript review for both graduation and certification requirements.

Implications for the Future

We know that teaching is a complex, multi-faceted profession and that, similar to other professions, teaching proficiency is influenced by the quality of the candidates, the educational experiences, and the quality of training and pro-

fessional development. Current research evidence suggests that a poor teacher, measured in terms of P–12 student academic outcomes, can affect a child's learning years beyond that classroom encounter. We know that the current NCLB and Title II of the Higher Education Act will force states and local school districts to make certification decisions based on meeting federal regulations. Such decisions will seek to satisfy compliance of new rules and regulations and we are doubtful that this alone will meet the needs of all children in all of America's classrooms.

These policies present a myriad of challenges for those of us who work diligently to prepare the next generation of educators. Cloaked in the words of "accountability," "standards," and the desire to "leave no child behind" looms the possibility of actions that may not be in the best interests of our public schools, our nation's families, and our children. Extensive reform in the preparation of educators is not a finite task, but is a continuing, fluid process. Based on what we know from the literature and careful observation of the current policies, we believe that those of us who prepare educators will face three primary challenges over the next decade.

Initially, we believe that a variety of pedagogically sound programs will be required to meet the needs of those individuals seeking alternative routes to certification. This need must be recognized by all institutions that seek to prepare outstanding educators for our nation's schools. It can be argued that the current number of traditional teacher preparation programs are all, in essence, "alternative routes" due to the variability of traditional program designs. Thus, all programs that prepare educators can be considered "alternative routes" to certification. We have already initiated the process of developing and implementing sound alternative programs to assist in increasing the supply of qualified personnel for our schools and we must continue to evaluate our current programs to provide efficiency balanced with the need for developmental growth as professionals. We expect that alternative routes to certification will increase, but firmly hold to the expectation that alternative routes must not equate with lower standards of performance.

Secondly, our reform initiatives have created and demonstrated the need for, and continuation of, strong partnerships with public schools. Our data clearly indicates that by working together, dramatic increases in K–12 student achievement are possible. These efforts come at a large cost in terms of time, energy, and resources and compel all stakeholders to consider different models of delivery. Our public schools are also facing the loss of state support coupled with increasing demands on performance outcomes linked to resource allocation. The need for strong partnerships has never been greater as we all face the task of doing more with less.

Finally, we embrace with enthusiasm, the challenge and opportunity to continue reform efforts that utilize the benchmark of K–12 student achievement as the measurement for competency. Our initial reform efforts were based on the notion that our first and primary responsibility is to prepare effective educators. The recent release of the Education Commission of the States report (2003) indicates, yet again, that the research in the area of teacher preparation is limited and in some areas there is insufficient evidence to influence policy. We must continue to focus our efforts on sound, research-based studies that will yield the type of information necessary to these pivotal policy-making discussions.

Conclusions

Through alumni surveys, district surveys, graduate surveys, and job-fair evaluations we have determined that candidates who have progressed through our re-designed program are better prepared, have higher retention rates in the field than the national average, and are viewed as high quality professional candidates. We concur with the evidence that indicates quality teacher preparation yields a better teacher. We concur with the evidence that indicates quality mentoring during the induction year increases teacher retention and allows for greater impact on P–12 student learning. We concur that our country needs and our future depends on a highly qualified teaching force. And we believe that quality alternative routes to certification can provide us with a variety of ways to lead individuals into the teaching profession. However, we also know that the way to achieve that goal does not include sidestepping what we know about learning, teaching, and the development of children.

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