Teacher Education at the Crossroads: Burning Questions That Just Won't Go Away

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Introduction

Worldwide, the call and the need for highly qualified teachers is relentless, perhaps greater than any time in our history, and, concomitantly, the pathways to becoming a highly qualified teacher are more diverse than ever before—the traditional university model, alternative certifications, on-line programs, and standardized tests waiving course work have an unprecedented presence.

It is hardly news there is a crisis in recruiting and educating future teachers. This is in addition to the crisis of retaining the teachers we currently have: 20% of new teachers leave the profession within their first three years; 50% of them in urban districts alone. Therefore, it is estimated that over the next ten years the United States will need over two million teachers (Guggenheim, 2004).

So, not only are we producing too few teachers, those who do enter the teaching profession are often ill prepared for the challenges associated with an increasingly rigorous and test-driven curriculum and an also increasingly culturally and linguistically diverse student population. These challenges are further intensified by instructional conditions marked by a scarcity of resources. Finding new sources and strategies for recruiting teachers, while helping existing teachers stay committed to the profession will be no easy task as conflict among various constituencies escalates.

Schools of education today face pressure to improve from all directions. A flurry of new studies challenges their ideological bias and low admissions standards. Critics now question their very existence, with competition from fast-track routes to certification threatening their long-held monopoly on training teachers. The soul-searching has accelerated in the United States with the Federal *No Child Left Behind* (NCLB) Act of 2001, which demanded a "highly qualified" teacher—state certified, with a bachelor's degree and proven knowledge of subject—in every classroom by the end of the 2005-06 academic year (Hartocollis, 2005). How has the US reacted to the challenge?

Teacher Magazine (August 5, 2007) has explored already existing alternatives to teacher recruitment and preparation focusing on fast tracks to certification. Prospective teachers across South Carolina, for example, have an opportunity for a new shortcut to getting certified to go into classrooms. The program targets career changers and can certify would-be public and private school teachers in all 50 states. The *Passport to Teaching* program was approved by state legislators in 2007 and can get people into classrooms faster than the traditional four-year college route. South Carolina was the seventh state to approve a streamlined fast-track certification program from prospective public school teachers. The program requirements for being certified as a teacher vary among states. Teacher candidates using the program in South Carolina can be certified to teach after passing two tests and being mentored for 10 months. More importantly, their training requires *no* in-classroom experience or coursework.

The example from South Carolina highlights the state of Teacher Education in the country: state departments of education and local school boards are looking for a quick fix and are not planning educational policies in view of the changing demographics of school population and the teaching profession. In order to not only prepare but retain teachers in the profession and offer

them the necessary support to develop and improve their teaching skills, more long-lasting solutions are needed.

Schools of education have long established themselves as think-tanks where ideas or suggestions on how to approach our educational challenges are generated. However, they do not seem to have demonstrated concrete solutions, either. In fact, schools of education today have the additional challenge of proving themselves still relevant and necessary. Moreover, according to Department of Education Secretary Arne Duncan, schools of education also need to be made accountable for student achievement (address on October 22nd, 2009, at Teachers College).

In this article, we identify some critical areas regarding teacher education that need to be addressed by any institution responsible for educating teachers. We outline some of the paradoxical pressures that constitute the context for this crisis in teacher education and specify the kinds of basic questions that need systematic answers in terms of what teachers might be expected to know. These questions serve as a worldwide call for teacher educators to provide evidence-based programs that employ the knowledge needed to be a teacher as the basis for actually educating a teacher.

We examine the example of one school of education and how it has shown that adapting to local needs and circumstances without having to alter the essence of your work can be an effective strategy in keeping your program meaningful and up-to-date. We also raise a number of questions that we believe reflect the evolving nature of the field of teacher education and remind us that there is much more involved in becoming and preparing teachers than our current teacher education programs would like to think.

The Roles of Teachers and Schools

In order to understand the role of teacher education in today's society, it is necessary to step back and consider the role teachers and schools play in society first, which is the major reason why we are preparing teachers – to accomplish the mission schools were developed in the first place.

According to the Wisconsin Department of Public Instruction, "a school is an administrative unit dedicated to and designed to impart skills and knowledge to students. A school is organized to efficiently deliver sequential instruction from one or more teachers. In most cases, but not always, a school is housed in one or more buildings. Also, multiple schools may be in one building. By statute, a home-based private educational program is not a school." (WDPI, 2009).

In order to organize the learning process described in this definition, schools have traditionally been organized into a grade system where a specific body of knowledge is assigned to a specific grade level (Naiditch, 2010). Schools, however, are multi-faceted and complex institutions. As centers of learning, they represent what is considered the official knowledge, values and beliefs of a society (Apple, 2000). As microcosms of the larger society, they have a determinant role in the socialization process of the youth (Berns, 2009). As children learn how to read and write, they also learn how to function in an organized society.

Schools, therefore, play an essential role in both forming and informing the youth, which broadly speaking, means educating citizens for life in society. In the case of democratic societies, it is also the role of the school to prepare citizens to participate and engage in democratic practices and institutions.

In the daily life of a school, though, all these objectives need to be integrated with the reality of the administrative and organizational needs of the institution. Schools only become effective when they are led by professionals who can provide a clear instructional vision as well as the

thoughtful and efficient management of the day-to-day activities that make this vision a reality. The role of the school team is multidimensional. It includes establishing a fair and dynamic school culture, creating instructional processes to meet achievement standards, and setting goals and policies for the actual running of the school.

Teachers initiate and support the development of innovative academic programs, monitor students' educational progress, educate and motivate their students and concomitantly work with and establish relations with parents, prospective and current students, employers, and the community; and connect with the larger school system. They may also serve as advisors, answer procedural questions, visit classrooms, observe teaching methods, review instructional objectives, and examine and vet learning materials. Teachers must pay attention to the concerns of many – can they do all these tasks alone? Within the circle of the school, one person, the principal, is usually responsible for attending and responding to everyone's needs and concerns. Principals, however, cannot run a school alone, either. Teachers, administrators, parents and the community must handle all the diverse functions of a school and in terms of ultimate accountability, i.e., all become the ones who we must turn to when students are not learning to their full capacity in the school.

Given all the variables that come to play in running a school effectively, just what skills, knowledge, and attitudes need developing in order that teachers, administrators and communities are able to create schools where all students can succeed? And how does any school system provide the kinds of support and opportunities that promote individuals to assume the responsibility for educating all the students?

Schools today face a set of complex challenges because they are being asked to be both effective educational innovators able to project a strong and coherent vision of teaching and learning and at the same time struggle to meet the conflicting needs and expectations of the staff, the students, the parents, and the immediate community. Schools strive to create a quality environment that promotes learning for all. While demanding and often stressful, the work of a school faculty is guided by their having accepted the responsibility for transforming their schools into more efficient, responsive learning communities. To complete this important work, each school must be fully aware of the ongoing learning that is required on their part if they are to explicitly and caringly address the needs of students, their families and staff within the context of the larger community that supports their school.

The challenges schools face today reflect the responsibility they have towards their communities and to the larger society, and these include: meet their internally generated learning goals within the context of external standards and expectations, be accessible and accountable to a variety of constituencies, respond to and make use of outside assessments of their student's learning progress, encourage and respect cultural, linguistic and socio-economic diversity, and build instructional coherence and commitment, among others.

To meet these challenges teachers must have the skills, knowledge, and dispositions to initiate and support the development of innovative academic programs; monitor students' educational progress; educate and motivate teachers, parents and other staff; manage guidance and other student services; administer record keeping; prepare budgets; establish relations with the community; and connect with the larger school system. With this set of instruction/assessment linkages supposedly in place, the pressure on all teachers dramatically increases for, in this brave new world of accountability, successful teaching is supposed to be determined by the externally "measured" learning attainments of *each* and *every* student in our nation's schools, regardless of a student's beginning characteristics or any additional extra-school contributions of social and cultural capital that are simply not available equally to all students.

Under such circumstances, how exactly are universities (or any institution assuming the role of teacher educator) supposed to prepare a teacher? A teacher who knows the subject matter? A teacher who can work successfully with diverse populations? A teacher who understands linguistic, cultural, and socioeconomic diversity and is able to develop lessons taking these variables into account? A teacher who can modify and adapt a curriculum and instruction to meet the needs of all the students in the classroom, even when they may be separated by more than three grade levels of reading ability? A teacher who can talk with the parent of a gifted child one moment and then immediately conference with a parent whose child has some learning disability? A teacher who can collaborate with other professionals in order to see beyond the classroom to the larger community of the school?

Remarkably, the list of competencies any teacher might be called upon to exercise can never quite be either fully articulated or constrained. For instance, there is no question that teachers need what Shulman (1987) referred to as "pedagogical content knowledge." Teachers need to master the "essential" content, skills, and instructional strategies required for effective learning. It is not, however, all that clear just exactly what constitutes *essential* in particular concrete situations. Moreover, even such mastery is not enough and may not guarantee academic achievement, for, in addition to pedagogical and content knowledge, teachers' attitudes and beliefs have also been found to contribute in significant ways to their effectiveness as educators (Ashton & Webb, 1986; Tracz & Gibson, 1986). Indeed, teachers' beliefs about their personal effectiveness or efficacy appear to discriminate between more and less effective teachers (Brophy & Evertson, 1976; Volkman, Scheffier & Dana, 1992). Among other competencies included here are people's skills and a firm commitment to community as it is embodied within the values of our democratic system. Successful teaching in these terms involves acting upon a genuine belief in fair play and equal educational opportunity for all. Without teachers who understand what it means to work for social justice, to promote equity and human rights through education, the possibilities of advancement for all students remains a deceptive illusion, as even conservative commentators have admitted (Brooks, 2005).

Teacher Preparation and Qualification of Educational Specialists

In the face of this plethora of demands, it is not surprising that any number of approaches for educating and sustaining new teachers have recently proliferated in our society. Indeed, if we demonstrably knew the best possible ways to educate a teacher we would have less variability in our approaches, greater agreement regarding standards for teacher education programs, and probably fewer alternative routes to becoming a teacher. Perhaps the best way to summarize the education literature and the difficulty in teacher education is to look at what we know about instruction when it comes to teacher preparation. For example, are there instructional strategies all teachers should learn regardless of which teacher education program they attend? Gerges (2001) offers some insight into answering this question. She reported that thousands of studies were conducted between 1960 and 1980 to determine which teaching method produced the greatest gains in student achievement. Researchers compared and contrasted a number of approaches to teaching and concluded that no single instructional method is most effective in all teaching situations. Teachers must know and practice multiple learning goals and must practice alternative techniques in the delivery of instruction, which means that ultimately *flexibility* matters more than an ability to follow closely script-driven teaching routines.

It is widely accepted within the educational field that there is no one method or approach to educate all children. Teaching is not a *one size fits all* enterprise. Teacher education programs

need to not only present prospective teachers with a variety of methods, but to enable them to discriminate among possible pedagogical practices and decide which ones would be more efficient to their teaching context and student population. Moreover, given that flexibility seems to be a key ingredient in preparing teachers, teacher educators should also focus on educating teachers about how to adapt models, modify instruction and create their own instructional strategies based on the context, the needs and the specific characteristics of the communities and students that they serve.

The NCLB Act required states to develop plans that would guarantee that all teachers teaching in core academic subjects—English, reading or language arts, mathematics, science, foreign languages, civics, government, economics, arts, history, and geography—would be highly qualified by the end of the 2005-2006 school year. NCLB defines highly qualified as those who have obtained full state certification (including alternative certification) or passed the state teacher-licensing exam. Elementary teachers must hold at least a bachelor's degree and have passed a state test demonstrating content knowledge and teaching skills in reading, writing, mathematics, and other elementary curriculum areas. A teacher does not have to attain the highest level of certification to be considered "highly qualified." Initially certified or licensed teachers may also meet the requirements. Someone teaching a subject for which she or he has not demonstrated subject-matter competency, regardless of whether that teacher is fully certified, would not be considered "highly qualified."

The initial responses to the mandates of NCLB were promising. Prior to the passage of this federal legislation, New York State for example, had required all colleges and universities to overhaul their teacher education programs. The state's new guidelines as of September of 1999 forced schools of education to make significant curriculum changes. These included assigning senior faculty members to specific teacher education courses and re-structuring student teaching courses in the field. Most importantly, this edict from the Board of Regents mandated that all institutions register with an external evaluation organization in order to monitor the quality of their teacher education programs, even threatening to close schools of education if they did not meet established criteria.

Yet, one has to question our society's overall commitment to quality education beyond what it clearly accomplishes for the privileged, at least as this commitment is manifested in teacher preparation and retention, because just as the new requirements of NCLB went into effect, numerous states and cities have seemingly undermined them. This has occurred, for instance, in the passing of emergency legislation, which allows for abbreviated alternative teacher certification programs, such as allocating dollars to "train" college graduates to teach math when they have not demonstrated either content or pedagogic mastery. These kinds of maneuvers in particular underscore former Secretary of Education Roderick Paige's announcement on March 15, 2004 that he would relax certain rules and shift policy so as to lessen compliance pressure. One policy shift allows veteran teachers in small, rural, and isolated districts—one-third of the nation's school districts fit that description—who are already "highly qualified" in at least one subject, an extra three years (or until 2007) to become qualified in the additional subjects they teach. While working on their qualifications, teachers must receive professional development, intense supervision, or mentoring. For science teachers, the Department of Education has decided to permit states to use their own certification standards to determine subject-matter competency, rather than requiring it for every science subject they teach. In other words, if a state offers a general field of science certification, science teachers may prove subject-matter competency through a broad field test; but if a state requires certification in a specific science subject, i.e. chemistry, biology, or physics, a teacher would need to demonstrate competency in each of those

subjects.

Another policy shift favors special education and middle school teachers who teach multiple subjects. Under the revised policy, current teachers have the option of demonstrating subject-matter competency through a "high, objective, uniform state standard of evaluation" (HOUSSE) instead of taking a test or going back to school. The HOUSSE process may include a teacher's years of experience, high-quality professional development, continuing education, and other objective evaluations. Furthermore, teachers need go through this procedure only once to demonstrate subject-matter knowledge for all the subjects they teach, as opposed to filling out individual applications for each subject. Perhaps all these shifts are understandable, but together they result in making the *NCLB* Act appear two-faced and ultimately unenforceable.

Originally, much was being made of how the new standards would make sure "highly qualified" teachers hold at least a bachelor's degree, have full state certification or licensure, and have demonstrated competence in their subject areas. Further, all teachers of core academic subjects were to be highly qualified by the end of the 2005-06 school year, but financial resources and clear thinking seem to have dissipated, even as the anti-learning, anti-"best practice" testing continues unabated.

If 'relaxing policy' is not enough of an omen for where teacher education is headed then came the news that the New Hampshire State Board of Education had joined the bandwagon of other state boards considering the American Board for Certification of Teacher Excellence's (ABCTE) alternative teacher certification process (Ramer, 2004). On March 17, 2004, the State Board of Education held a public hearing to decide on whether to alter certification requirements to include the ABCTE approach. Currently five certification paths exist in New Hampshire, one of which allows candidates who have worked in education for at least three months to earn certification through written and oral evaluations. If the state board endorses the new method, a joint legislative committee would still have to vote on approving the new rules, yet action on this has already been in the works. Back in January 2003, Rep. John Alger (R-Grafton) and Sen. Jane O'Hearn (R-Nashua) introduced bill HB 499 to recognize ABCTE. The bill passed New Hampshire's house in March of that year, but the senate, moving more cautiously, has referred it several times to interim study.

Should such trends continue, tomorrow's teachers instead of undergoing more rigorous and thorough pre-service teacher education will be rushed into the field through *quickie* certification, leaving many of them more poorly prepared than their predecessors. The authors of emergency legislation and those who have discovered additional financial resources in the private sector may be well intentioned; they see a patchwork of quick fixes such as alternative certification as a solution to the acute teacher shortage. Preparing educators to teach should not, however, come at the expense of quality classroom instruction for all children. Clearly, watered-down teacher education programs, including any number of for-profit schemes, will have their most profound impact on those students who can least afford it. Inadequately prepared teachers will almost certainly leave students bored and disengaged, yielding a decline in standardized test scores and a rise in discipline problems.

Obviously, given the current teacher shortage, it is no surprise that alternative approaches to teacher education and certification are being considered and even instituted—for in part the present crisis only adds fuel to the deep doubts among the public at large as to the worth and rigor of teacher education institutions in general. As the more exacting certification requirements begin to be phased in (New York State's target date, for example, was February 2004) the challenge of "filling" classrooms with properly prepared educators increases apace. For the sake of students, care must be taken to guarantee that the high standards set for teacher certification and

professional development programs actually take effect. Otherwise, our schools risk being flooded with poorly qualified teachers. Yet, herein lays the root of the problem: What exactly is a highly qualified teacher? How does one prepare an individual to be a highly qualified teacher in terms of content knowledge and pedagogical behavior? Can or should all candidates be prepared in the same way to attain this "highly qualified" goal? And, while any number of existing teacher education programs have graduates who have evident teaching success with their own students, what evidence exists that current processes of teacher education are responsible for such results?

We admit that, even if we did know how best to educate teachers, until underlying issues affecting teaching and learning are addressed—low teacher salaries, crowded classes, limited financial and physical resources that perpetuate stressful working conditions, inadequate professional development and support structures, the absence of a coherent and fair system of instructional accountability—our society will *not* be able to attract and retain the best educated teachers. Accordingly, parent and citizen support of public education will decline, just as students who can least afford it will continue to suffer.

In Spring 2003, the Education Commission of the States published a report entitled *Eight Questions on Teacher Preparation: What does the Research Say?* Ninety-two studies served as the basis for the report, which framed eight challenges with which our profession needs to struggle:

(1) the role of subject knowledge in teaching effectiveness,
(2) the role of pedagogical knowledge in teaching effectiveness,
(3) the role of field experience in preparing successful teachers,
(4) the quality of "alternative route" approaches to teacher preparation,
(5) the quality of approaches for preparing teachers to succeed in previously underachieving schools,
(6) the effect of raising standards and admissions requirements on teacher preparation outcomes,
(7) the effect of institutional accreditation on program quality and the preparation of teachers, and
(8) the effect of "institutional warranties" on the quality of teacher preparation.

It would be reassuring to report that well-researched and clear answers exist for these eight challenges. Indeed, in the absence of clear existing answers, educators should still be able to say they have a precise plan to follow and that, despite the obvious human variability, they actually know how to educate a "highly qualified teacher." The report concluded, however, by acknowledging the "relative thinness of the research" and that the available evidence "simply does not justify an absolute and exclusive" approach.

Among its recommendations, three appear particularly salient for the concerns of this article: (1) Ensure that research on teacher preparation defines more precisely the questions that need to be addressed and the data that need to be gathered; (2) Make the connections to student achievement as explicit as possible; and (3) Strengthen research capacity by increasing overall investment and defining a strategic and coordinated research agenda.

With these three dimensions in mind, teacher preparation programs have an obligation to look both internally and externally at how they will work with real evidence to justify and continue to refine their practices. Internally, commitments are required to actively establish and build a culture of longitudinal research and evaluation that complements the implementation phase of their mission. Externally, programs must work with accreditation organizations, such as

the National Council for the Accreditation of Teacher Education (NCATE), to create more far-reaching coalitions and networks that might inform, consolidate, and disseminate internally driven research and evaluation efforts.

The importance of research as a foundation to accreditation is articulated by Brabeck (2005), who states that teacher education programs must report on the validity and reliability of measures, especially qualitative ones. Brabeck suggests four tasks confronting teacher education. First, outcome evidence including grades, scores on standardized tests, and various ratings is not enough to justify the effects of teacher education programs without initially addressing a number of evidence-related challenges. One is methodological. There is increased pressure to measure students' change from the time they enter our programs until the time they exit. The value-added models employed for such measurements, however, are complex, require sophisticated research designs, and are affected by many intervening variables. While grades can be a helpful measure of outcomes, potential grade inflation limits their use. Job placement and retention are important outcomes, but they are affected by different hiring markets in various fields. Employer surveys can provide useful feedback, but the ability of principals to assess new teachers varies. Despite these challenges, we must develop reliable and valid outcome measures.

Second, we need to work with practitioners to ensure that the outcomes we identify and the assessment strategies we develop are relevant to schools and classrooms. By promoting relevant value-added measures, accreditation can show just how university-prepared teachers improve the learning of P-12 students. Third, given the complex statistical models and research strategies required for complete and valid outcomes assessment, we need to examine the skill set of our teacher education faculty—and of the future faculty currently studying in our doctoral programs. Do they learn structural equation modeling along with ethnographic methods? Do they know how to use discriminant function analysis and grounded theory?

Brabeck's fourth task involves our need to overcome the epistemological and ideological differences among teacher educators in order to identify just what it is that all teacher candidates should know and be able to do. How we achieve these goals will vary by institution, but in the end, we need significant agreement on exactly what constitutes the real outcomes of university-based teacher education, particularly if we are to support its existence, importance and need in the preparation of future teachers.

Teacher Education from the Perspective of a Research One University

Twenty years ago the Steinhardt School of Culture, Education and Human Development at New York University formed its Department of Teaching and Learning in order to house together all the academic programs designed to prepare teachers for certification. Except for programs in art, music, dance, speech and educational theater, all students planning to become public school teachers were registered as either undergraduate or graduate students in that department. Fourteen different programs that had previously been housed in five different administrative units were merged to create this new department. All the diversity that characterizes teacher education and certification—theory, practice, instruction, and student teaching—were thus grouped together for the first time. Under one roof lay entangled a wide range of curricular options and course requirements, student placement criteria, and performance accountability, probably as diverse as the field of education has to offer. Initially, the aim of the administration was relatively straightforward: keep peace within and among the programs and not disturb what supposedly was based on historical validity: " We've done it this way *successfully* for years,"

"We've always used this public school for student teaching placement," or "We always schedule courses based on the convenience of faculty schedules."

The chair of the department at the time arrived with a global set of fundamental questions to the community of teacher educators regarding teaching and learning in the context of teacher education. The questions ranged from the analysis of students' coursework to faculty roles and the actual student teaching experience (see Appendix I for the complete list of questions).

The questions also reflected an attempt that was being made to build department support around a coherent effort to research the issues involved in preparing successful teachers. While countless students seemed to move successfully through the teacher education program at NYU, reportedly ending up as effective teachers, it was not clear exactly what aspects of their education were most responsible for these outcomes.

The questions that were formulated to guide the discussion of faculty and administrators were divided into underlying categories that, ultimately, represented six areas of inquiry. Each area of inquiry presented a number of challenges expressed in question forms, as can be seen in Table 1:

TABLE 1: AREAS OF INQUIRY IN TEACHER EDUCATION

AREA OF INQUIRY	QUESTIONS RAISED
Program Content	1.1 How best do individual certification programs make decisions regarding required coursework? What and/or who determines the content and how it is delivered in individual courses? To what extent does what happens in a course reflect individual instructor idiosyncrasy versus collective faculty strategic decision-making? 1.2 How many and which content courses are needed to prepare a teacher for teaching content related to specific discipline areas? How is content coverage and mastery related to success as a "content" teacher? 1.3 How many and which pedagogy courses are needed to prepare a teacher to teach the content? How is knowledge and mastery of pedagogy related to success as a "content" teacher? What aspects of classroom management should a beginning teacher master and where does this knowledge/skill fit into the overall preparation of a teacher? 1.4 What constitutes "foundation" preparation for a teacher? How are "foundations" and foundations courses defined? How are foundations knowledge, insights, and wisdom employed and displayed in successful teaching? 1.5 What skills are involved in successfully working with diverse groups of students (linguistic, cultural, developmental, ability) and how are they properly, efficiently, and comprehensively addressed in the teacher education curriculum? 1.6 What are the "best" ways of conveying course content to per

	1.7 spective teachers? 1.8 Given limited time and space, how best to decide what information is covered in any given content course? How do we distinguish between an underlying understanding of the processes of content versus the accumulating information that these processes organize and work on? 1.9 What determines the balance of theory and application in any given course? 1.10 What constitutes coherency and consistency within and across individual courses in a program's curriculum, as perceived by faculty versus students? What meta-awareness is best introduced in any course and how does this meta-awareness influence the learning and satisfaction of perspective teachers? 1.11 What differences in terms of content and pedagogy distinguish teacher preparation at the undergraduate level from the graduate level? How are such differences influenced by program (mathematics as opposed to social studies) and/or grade level (childhood as opposed to secondary)?
2. Student Teaching	2.1. How much student teaching is needed to prepare a perspective teacher? 2.2. What are the supervising factors that affect the student teaching experience; frequency (how often a student teacher is observed) duration (length of an observation at a student teacher's site) and latency (amount of time between observations)? 2.3. What qualities need to be matched in supervisor selection for a given student teacher? 2.4. What qualities best characterize optimal sites for student teaching and how are such sites best selected? 2.5. What procedures should be followed in selecting a student teaching placement classroom? 2.6. What qualities characterize a successful cooperating teacher and how are such individuals best recruited and selected? 2.7. What differences exist between levels of placement, at early childhood, childhood, middle school, and high school 2.8. What differences characterize student teacher placement across the disciplines: English, social studies, mathematics, science (earth science, biology, chemistry, physics), foreign languages, arts and music, special education? 2.9. What coursework best prepares a student prior to student teaching? How do we identify the coursework necessary to prepare a student for student teaching? 2.10. What coursework best supports a student during student teaching? After student teaching? 2.11. What kinds of systematic advisement best support student teaching beyond the cooperating teacher and the supervisor?

	2.12. How is student teaching best evaluated and graded? Who should participate in this evaluation/grading process? How is this process related to assessment, self-assessment, and the overall growth of the prospective teacher? What components should make up this evaluation?
3. Delivery Process	3.1. How many students should be in a methods course? How should class size be determined? 3.2. Where should method courses be conducted, in real school environments or at the university? What are the advantages and disadvantages of holding a methods course in the field? 3.3. What contact hour variability relates best to what should be achieved in any given course? 3.4. What determined the viability of a field component in any given course? 3.5. What qualifies an instructor to teach a methods course? How is an instructor's field experience related to this qualification? 3.6. What research supports/guides faculty decisions regarding course and curriculum organization and delivery?
4.Instructional Accountability	4.1. How are individual courses assessed and evaluated? What is the difference of a course working for the faculty versus working for the students? What success criteria exist for given courses and how does this vary depending upon the course content and the students involved? 4.2. How is a program's curriculum of courses evaluated? How is it determined that a group of courses actually constitutes adevelopmental sequence and are being offered in an appropriate sequence? For any given course, what determines "readiness"? How are pre-requisites and co-requisites determined? 4.3. What constitutes valid and reliable assessment/evaluation procedures and instruments for making instructional decisions? 4.4. How are grades determined and what difference do they make in teacher preparation?
5.Program Accountability	5.1. How do we know our certification programs are structured effectively and efficiently to prepare successful teachers? 5.2. How do our programs address teacher retention? 5.3. What differences exist between preservice undergraduate and preservice graduate students in terms of their effectiveness as both student teachers and future teachers? 5.5. On what basis are programmatic decisions made? What sorts

	of evidence, including data generated by valid and reliable evaluation instruments, employed in these determinations? 5.6. How does one's eventual effectiveness as a teacher correlate with one's performance in a teacher education program, at both the course and student teaching dimensions?
6. Managing Inter- and Intra- Program Conflict	6.1. How do faculty from different disciples and different philosophical persuasions resolve conflict and achieve consensus when deliberating on matters that affect students and curriculum across the Department? 6.2. How do faculty from different disciples and different philosophical persuasions keep their positions permeable in order to improve planning and practice based on evidence? 6.3. How do faculty from different disciples and different philosophical persuasions make curricular decisions and determine course content and method so as to best serve student learning? 6.4. How do faculty within program designations work collaboratively to use data about performance to inform curricular and instructional decisions?

Facing the Questions: In Search of Appropriate Answers

Posing these questions to a group of teacher educators and presenting them as areas of inquiries proved to have been a challenging yet rewarding experience. Teacher educators need to be constantly questioning their practice aiming at improving their work in preparing teachers to deal with the daily life of a school – any school in any possible context. These questions also remind us that there is much more involved in teacher preparation than the dyad *content-pedagogy* may lead us to think. And even for educators who believe that Shulman (1986, 1987) has hit the nerve of teacher education, there are still questions that need to be addressed, as we do not seem to know how to balance content and pedagogy in teacher education programs. Moreover, teachers need to be prepared to deal with the unexpected and that means preparing *teacher-thinkers* who can use the knowledge, skills and dispositions developed during their preparation to come up with possible solutions and ways of solving the issues their classrooms or schools may present.

If we knew how to answer these questions appropriately, we would be uncovering the mystery of teacher education. The way different teacher education programs and faculty may choose to go about answering and putting these questions into practice reflects two kinds of beliefs:

(1) Personal belief: what it is that individual faculty members think teacher education should be from the way they themselves have been trained or educated to become teachers. Many faculty members in teacher education believe that their way is the appropriate one based merely on the assessment of their own practice. Some call it a "hunch"; others a "practice-oriented approach", or even an "educated guess." Howev-

er, there is no research or data to back up their beliefs. Not every teacher educator has been a teacher and even those who have come from the classroom may have been away from it for a number of years and their practice may be distanced or disconnected from the American classroom today.

(2) Collective belief: programs believe that because they have always done it a certain way, their way has been proven "effective." The proof they present is usually the fact that they have already graduated a large number of teachers and, thus, they assume that what they do seems to be working. This, unfortunately, is a common belief in teacher education, but it still lacks concrete evidence and criteria for assessment. Teacher education programs that use number of graduates who have been hired or who remain in the profession as proof of their effectiveness are not addressing the core of the issue, as numbers do not translate into or reflect effective preparation and they do not seem to be able to define what effective teacher education entails.

The questions we present here, therefore, should be looked at as guidelines. The areas of inquiry could be used as large themes for teacher educators to focus on in order to assess and improve their programs. These questions are also framed to serve as a way of advancing this much needed discussion on the role and place of schools of education in preparing teachers and redefining schools. The widespread of teacher preparation programs and the many available ways of becoming a teacher attest to the fact that teacher education is still an area of experimentation and that everything we seem to know about it is under scrutiny. In addition, there is a societal need for accountability. How do schools of education respond to a society that wants answers as to why our schools do not seem to be doing their job?

As these questions make clear to us, much work remains to be done. The faculty at NYU is still working on addressing these areas of inquiry as they develop new curricula across the different content areas served by the department of Teaching and Learning. Much of the work is still trial and error, as no one seems to know the right answer or to be able to determine the best way to prepare teachers who are ready to face the challenges presented in today's society and schools, particularly in an era of accountability.

Until we can validate our traditional procedures in a reliable and standards-driven way, there will continue to be a tendency to view teacher education as a problem. Administrators, parents, politicians, and policy makers lament that too many teachers are not well prepared or that there is an absence of qualified professionals to teach. In our view, both the source of the problem and its solution lie in inquiry and research. Critics who voice dissatisfaction with teacher education—and there are indeed many legitimate grounds for dissatisfaction—themselves have yet to produce any substantial evidence that non-traditional approaches will actually prepare significant numbers of "highly qualified" teachers. It is unrealistic to expect that all students will meet standards, especially those in the inner city that come to over-crowded classes with a large number of socio-economic and social issues and severe needs. This situation coupled with insufficient support personnel to run the school and assist the teachers continues to result in an education distribution system that divides our society into haves and have-nots. In the face of this great divide, it is equally unrealistic to expect random hours of professional development or any other form of staff development to undo the effects of initial inadequate preparation, where there has been no mastery of the necessary combination of attitudes, knowledge, and skills as they relate to the subjects and students being taught.

Federal, state or city certification requirements may demand "highly qualified teachers," but to do so in a climate of profound uncertainty about what constitutes such preparation only

dooms the entire enterprise to confusion and decline. In-depth study of competing approaches and strategies involved in teacher education and, concomitantly, longitudinal study of the teacher's transition into a school's educational environment would begin to create a climate in which evidence might be used to answer ideology.

Certainly, deciding whether a teacher is "highly qualified" demands knowing something about their performance with actual children in real classrooms after their completion of the program that claimed to prepare them to be a teacher. Yet, what generally remains missing in the teacher education literature is any major bank of empirical data—nor do we see any commitment to systematically establishing such a bank. For one thing, we desperately need demonstration programs, on a large scale, which track students from entry into teacher education programs, through their preparation in content and pedagogy, and then on to when they are hired and actually begin to teach. In addition, continued formative evaluation might be gathered throughout their career. Only when demonstration programs are rigorously documented and independently evaluated can we have confidence that large-scale implementation is warranted. Conversely, quick-fix alternative programs, which present no serious evaluation procedures, would at last be properly exposed as no longer warranting the public's educational dollars.

Concluding Remarks

Our point in raising these hard questions about "best practices" in teacher education is to encourage an open dialogue among our fellow professionals in order to begin laying the evidentiary groundwork for cleaning up our own domain, a domain where many of the unresolved issues regarding teacher education that were prevalent twenty-five years ago remain unresolved today (Cochran-Smith & Fries, 2005). This agenda certainly comes with great urgency. How serious is the challenge to the teacher preparation programs at Schools of Education? Jay Greene (2005), for instance, in a Policy Briefing regarding the spending of dollars on New York City schools, raises a provocative question: do teachers with advanced degrees actually produce better results in the classroom? Turning to the research, what he found is almost shocking:

> Research suggests the answer is no. Consider the following: Based on a review of 171 scientifically valid studies, Eric Hanushek (1996) of Stanford University found the pat tern of results indicated no relationship between teacher credentials and student achieve ment. Another review of the research literature by the Abbell Foundation similarly found no relationship between teachers holding education masters degrees and student achievement. Rivkin, Hanushek, and Kain (1998) analyzed several years of Texas data and found that advanced degrees had no effect on student achievement (based on an ex amination of year-to-year gains in student achievement). Two separate analyses of data from the National Assessment of Educational Progress (NAEP) by Wenglinsky (2000) and Grissmer et al. (2000) both found that teachers' master's degrees did not improve student performance. (Policy No. 1)

The effectiveness and the justifiability of teacher education programs must be adequately documented and articulated if legitimate schools of education are to answer the claims of current research that is dismissive of our accomplishments, and, concomitantly, confront the numerous fly-by-night credentialing schemes that are now clamoring for political support and student tuition dollars. If legitimate teacher education programs cannot convincingly support the claim that the proper preparation of a teacher practitioner is labor intensive, while demonstrating that their

management of ever limited resources is being properly carried out, then quick-fix approaches will be able to assert their own forms of evidence-free legitimacy. Without hard evidence, even institutions that have been in the business of teacher education for a long time will end up resorting to self-promotional gimmicks. Only recently, for example, did the City University of New York propose a "teachers' academy for undergraduates" in which the talented will be provided with "more teaching experience than most teacher-training programs offer now" (Arenson, 2005). Why or how this strategy will actually improve the present situation will of course have to rest on testimony because the kind of inquiry our profession desperately needs is simply never built into any delivery system, whether the program is in its start-up phase or has been in existence for some time.

Schools of education, in short, are in need of strategies for answering the set of questions we propose; otherwise, their claims will remain weak without a demonstrable and independent sense of how and why what they currently do to educate teachers actually works. We are in part faced with a textbook case of consumer economics. Continuing to be ill prepared in answering the hard questions about our practices leaves us vulnerable to declining enrollments and eventual irrelevancy. The crisis in teacher education may have many sources and dimensions, but our own contribution to this crisis needs to be openly addressed. Otherwise our solemn testimonies as to our worth and methods will only appear as smoke and mirrors to a public already bombarded by the ideology of those who seek to sever once and for all the sacred trust of public education and the role that dedicated professional teachers play in keeping this trust alive and well.

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APPENDIX I

Set of "Twenty Questions" initially used to engage faculty in examining their teacher education program at NYU:

1. How much student teaching is needed to prepare a student for teaching? How might this time and circumstance vary depending upon the individual *student*, the *content* area (special education; foreign languages; English—language and literacy; social studies, science—chemistry, biology, physics, earth science; mathematics), and the targeted *level* of instruction (early childhood, childhood, middle school, high school)?
2. What factors affect the nature of the supervision that should accompany the student teaching experience: *frequency* (how often should a supervisor observe a student teacher?), *duration* (how long should a supervisor observe and conference with a student teacher during a site visit?), and *latency* (how much time should there be between observations?);
3. How and on what basis should student teaching be evaluated and graded?
4. How should a school that is an appropriate site for a student teacher be selected? How does the *setting* affect the criteria: urban, suburban, rural, poverty, special education, and public/independent? What characterizes any "successful" school placement?
5. How should a cooperating teacher and classroom be selected within a participating school, both by the university and the student teacher?
6. What coursework should a student take *before*, *during*, and *after* student teaching?
7. Who (students, individual instructors, curriculum programs, departments) determines what coursework is required as part of teacher preparation?
8. What specific content and pedagogy courses are needed to prepare a student to teach? In the absence of a traditional course structure, what should the balance be between content and pedagogy in any given educational module in order to adequately prepare for future teaching?
9. Who should teach the curriculum and methods courses: faculty without field experience, faculty with current field experience, or practicing teachers?
10. What is the optimal class size of any given curriculum and methods course?
11. What constitutes an educational foundations course and which such courses, if any, help prepare a student to become a successful teacher?
12. What does a prospective teacher need to know about "classroom management" and how is this best learned?
13. What is meant by "learning to teach a diverse group of students" and how are future teachers best prepared to do this?
14. What significant differences exist between preparing teachers who are currently undergraduate students as opposed to graduate students?
15. What kinds of differences should warrant two separate programs for undergraduates and graduates?
16. What courses should be required of all students regardless of their area of teacher certification?
17. What, if any research, supports or guides the various pedagogical decisions teacher educators continue to make in preparing teachers?
18. What other factors guide and/or determine the kinds of long term and immediate decisions made by faculty responsible for carrying out a teacher education program?

19. Overall, what combination of factors best determines the extent to which an approach to teacher preparation has been most effective and efficient?
20. How does a given group of teacher educators evaluate the degree to which they have been successful in their efforts?

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