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Examining Values and Beliefs About Teaching Diverse Students: Understanding the Challenges for Teacher Education

Maria Teresa Tatto
Michigan State University

This paper presents empirical evidence regarding the capacity of teacher education programs to influence the values and beliefs of those who enroll in them and offers insight into the conditions that may be conducive to such effects. Our study shows that although teacher education faculty and enrollees across the programs studied subscribe to ideals of social justice and fairness in regard to teaching diverse learners, it is less clear how they translate these ideals into their views concerning curriculum design and implementation, assessment of student progress, and classroom and school organization. Our findings indicate that lay culture norms among enrollees are strongly ingrained and that most teacher education, as it is currently structured, is a weak intervention to alter particular views regarding the teaching and management of diverse learners.

Introduction

The 1980s have seen a transformation in the dominant theories of teacher learning, away from a transmission view toward a more constructivist orientation emphasizing the understanding of teaching and learning in their multifaceted dimensions. Several distinct, but not mutually exclusive, theories about how teachers learn to teach with foundations on cognitive, social constructivist, and developmental views of teachers suggest that change efforts need to focus on teachers’ cognition and thought processes rather than on performance (Buchmann, 1986, 1990; Elbaz, 1983; Richardson, 1990; Schon, 1987) and that this change needs to be socially constructed by both teachers and teacher educators (Cochran, DeRuiter, & King, 1993; Condon, Clyde, Kyle, & Hovda, 1993; Prawat, 1992).

Just as dramatic has been the shift in the theories of teacher change as a process of socialization. Whereas previous functionalist and interpretivist approaches to teacher socialization have been, for the most part, deterministic in nature, casting the teacher in a passive-adaptive role to the culture of the profession with an unquestionable acceptance of the status quo, new approaches emphasize teacher agency and see teacher socialization and change as a process where individuals are creators and products of new socially constructed teaching realities (Zeichner & Gore, 1990).

Although these conceptions of teaching and teacher learning can be found more frequently in the literature, a gap remains between these theories and how they are implemented in teacher education and school classrooms (Cohen, 1988). Attempts at closing this gap can be found in the new wave of educational reform, which is in large part characterized by constructivist tendencies toward both teaching and learning. Terms such as teaching for conceptual understanding (Cohen, McLaughlin, & Talbert, 1993) and a number of school restructuring ideas (Elmore, 1990) are examples of this tendency.

An area that has increasingly gained more attention in reform efforts to improve teaching and learning is that of preparing teachers to teach a diverse student body (Banks, 1991; Zeichner, 1993). Because constructivist views of teaching and learning place the learner’s thinking or sense-making at the center of the teaching-learning process, teachers’ attention to and incorporation of students’ diversity of learning styles into
teaching practice has become an increasingly relevant area for improvement in both school-based and teacher education reform efforts.

But in spite of the widely recognized importance of student’s diversity on teaching and learning processes and the current emphasis this area receives in the reform’s rhetoric, teacher educators are still trying to understand how to help teachers address students’ diversity in the classroom (Zeichner, 1993; McDiarmid, 1993; for earlier exploration efforts in this area, see the work of Erickson, 1986, 1987; and McDermott, 1987). Most of the teacher education strategies for educating teachers for diversity reflect different views about how teachers learn to teach. One strategy gives little credit to teacher education as a powerful influence in this area and focuses on recruitment and screening procedures, whereas socialization strategies tend to focus on self-reflection—individually or as part of a group—attitudinal change, and immersion in and understanding of diverse students’ communities (Zeichner, 1993). Although a number of these socialization strategies have backfired (see, for example, Haberman, 1991, cited in Zeichner, 1993, and McDiarmid, 1993), “few strategies directed at helping students develop a clearer sense of their own identities and reexamine their attitudes toward and beliefs about different ethnocultural groups” as well as field and immersion experiences have produced better results (Zeichner, 1993, p. 20). Yet in Zeichner’s (1993) words, “... we know very little about the development of teacher education students’ cognition, beliefs, and skills with respect to the teaching of diverse learners... including how particular teacher education strategies influence teacher learning” (p. 21).

Why is it Difficult to Incorporate Student Diversity in Teaching?

In this paper, we claim that part of the reason teachers have difficulty incorporating student diversity as a building block in teaching and learning can be found in the prevalence of a number of beliefs held by teachers and teacher educators about teaching practice and student diversity as well as the views of teacher education programs about how teachers learn to teach. Teachers’, and teacher educators’, beliefs about best teaching practices have been dominated by the “transmission model” in teaching and the “absorptionist model” in learning (Prawat, 1992). Under the “transmission” and the “absorptionist” models, students are passive recipients of information teachers possess and carefully “deposit” in them.

Similarly, teachers’ assumptions that children have fixed approaches to learning and acting and that these approaches can be traced to differences in neurological, maturational, or cultural levels have and continue to distract teachers from thinking of students as sense-making individuals with regard to learning in different subject matter areas. Perceived differences in students are used by teachers more for classification purposes (such as grouping by ability)—under the assumption that this grouping assures effectiveness in the delivery of instruction—than for understanding how students are making sense of instruction (Prawat, 1992). Moreover, the way in which teachers have come to understand individual differences and their effects on classroom learning has important repercussions in students’ levels of school success and failure. The work of attribution theorists is relevant here.

From the work of Harold Kelly (1973; cited in Lalljee, 1988), we know that teachers tend to attribute success explanations to internal or personal characteristics of students (such as levels of ability or enthusiasm) and that this is more likely to occur when the particular measures of success are intellectual tasks. Conversely, we know that failure is most often attributed to external factors affecting the student, such as the environment (the home, the community, or, in some cases, poor teaching), and that this is more likely to occur when the measure of failure has to do with interpersonal tasks (such as discipline or getting along with peers). This pattern of attribution seems to be especially true for students who perform differently than their peers (i.e., a particular student fails a test). In this type of situation, teachers tend to attribute a student’s distinctive behavior to personal reasons, whereas when students behave in similar ways, the cause is usually attributed to environmental reasons (such as poor home environments or poor teaching) (Lalljee, 1988).

Further, research on attributional change and its consequences shows that teachers, though well intentioned, often send subtle cues to pupils indicating attribution for failure to pupils’ low ability rather than to the more manageable attribution of low effort (i.e., not trying hard enough). This pattern of attribution is a phenom-
ena mediated by children’s cognitive maturity and is a result of teachers’ and students’ commonly held conceptions of success and failure (Graham, 1990). Moreover, a number of instructional strategies often preferred for low-achieving minority children (such as the direct instruction model) encourage “[teachers’] behaviors believed to communicate low ability attributions” (Graham, 1990, p. 34). Thus, not only have teachers failed to gain a deeper understanding of student diversity and incorporate this diversity in teaching and learning, but they have used these differences as justifications for students’ success and failure and as guidance for instructional teaching practices that disadvantage the very students they expect to protect.

Importance of Personal Values

The importance of personal values and beliefs to teaching has become increasingly apparent in the last several years (Clark & Peterson, 1986; Clark & Yinger, 1987; Pajares, 1992). Teachers’ values and beliefs have been shown to influence grade-retention practices (Smith & Shepard, 1987), systems of classroom rules (Prawat, 1985), options considered when trying to solve a problem (Trumbull, 1984), and the content actually taught within a given subject. Not only do teacher beliefs influence their teaching practices, these beliefs are relatively stable and resistant to change (Kagan, 1992; Kennedy, 1990; Weinstein, 1989). If teacher educators are striving to help teachers learn practices teachers do not value, it is likely that teacher education will not have much effect. These findings, combined with studies of the content of teacher education, make it more clear that an important goal of many teacher education programs ought to be to alter teachers’ beliefs.

Hypotheses Regarding Constructivist Teacher Education

The relatively recent development of constructivist approaches to teacher education is important because it signals a departure from the more conventional view of teacher learning (under a transmission model) toward a view that recognizes teachers as learners able to construct meaning in context. This perspective has, in theory, the likelihood to be a more effective approach especially if we conceive of teacher education experiences as socially constructed. Similarly, different—less deterministic—conceptions of teacher socialization may provide student teachers with opportunities to develop deeper understandings about their roles.

In this paper, we pursue the exploration of the beliefs of both student teachers and their teacher educators regarding the teaching of diverse students and the conceptions of success and failure teachers hold toward diverse students. Of interest to us are three questions: (1) to what extent do teacher educators themselves subscribe to a shared set of beliefs about student diversity and teaching? (2) to what extent do student teachers hold different beliefs than those of their professors? (3) to what extent do student teachers’ views change in the direction of their faculty’s views as students participate in teacher education programs?

Our hypothesis is that teachers may be better socialized regarding student diversity by teacher education experiences resembling more closely social constructivist views of teaching and learning. Further, we believe that programs that follow a more conventional (or transmission) approach to teacher education will have little effect on teacher candidates’ views and that these will be more a function of other socialization mechanisms, such as larger societal views—the media, child socialization processes, peer culture stereotypes, among others—or their own school experiences. Thus, we recognize that the influence of teacher education is mediated by social, economic, and political contexts that have important influences on teacher beliefs and values about teaching diverse students.

Further, we hypothesize that to socialize student teachers effectively regarding student diversity by teacher education experiences resembling more closely social constructivist views of teaching and learning occurs that, in theory, allows for teacher educators and student teachers to engage in dialogue about teaching across time. The need for the existence of norms (or “rules of the game”) of discourse within communities united by a common goal has been argued by scholars such as Gergen (1995), using as an illustration the field of science where “established rules have a localized referential value within specific communities of scientists” with these rules (or terms) helping them coordinate their actions around specific goals—in this case—“scientific research” (p. 27). But while—as opposed to science—the prevalence of diametrically opposed yet legitimate values permeating teaching practice and teacher education may make it quite
difficult to find a set of established norms across the field of teacher education—other than norms widely acknowledged by the larger society—it may be possible to find a more developed set of norms within specific teacher education communities or programs that are by definition circumscribed within a particular socio-historical context. Again, because of its dialogical and contextual nature, we believe that teacher education experiences resembling more closely social constructivist views of teaching and learning are more likely to have developed these norms vis-a-vis more conventional approaches. It is to the exploration of these questions and hypotheses that we now turn our attention.

The Influence of Norms on Teacher Education and Teachers’ Beliefs and Values

Views of Teacher Educators

To the extent that teacher educators share a set of beliefs about such issues as teaching diverse students, how teachers should respond to particular dilemmas of practice, or what determines students’ success or failure, we can say that this set of beliefs represents the professional norms of this field. To the extent that their views are diverse, we may speculate that there is no coherent “field” of teaching or teacher education. But even if the views of teacher education faculty are not shared across programs, they may still be shared within a given teacher education program; that is, each program may form its own subculture, its own professional norms for teaching, and each may try to inculcate these values in its own students.

Our reason for examining faculty views, therefore, is to determine the extent to which these views represent either uniformity across the field as a whole or uniformity within particular programs. If we find that faculty views differ across programs share a variety of beliefs and values about teaching, we will say that these views represent the professional norms of teaching. If we find that faculty differ across programs but that faculty within programs share a set of views about teaching, we can say that the field consists of a number of distinctive and coherent views about teaching and that the particular package of views held by faculty within a given program represents that particular program’s norms. If, still, we find that there are no particular patterns evident in the views of program faculty, we can say that neither the field as a whole, nor any particular program, indicates a coherent view (or holds particular norms) on these issues.

Views of Student Teachers

A similar line of reasoning can be used to examine student teachers’ views. If we find that student teachers, upon entering teacher education and before they have learned from their professors, share a set of beliefs and values about teaching, we can say that these views represent lay culture norms about teaching and learning and that these will be more a function of other socialization mechanisms or their own school experiences. Lack of consensus in their views, in contrast, could indicate that we do not, as a culture, hold strong or clear views on these matters.

But teachers entering particular programs may hold particular patterns of views that differ from the views held by students entering other programs. If student views differ in recognizable ways from one program to the next as they enter these programs, we can say that there is a clear recruitment influence from program to program. Especially pertinent to our interests are the beliefs held by these pools of student teachers. If their views are consistent with those held by faculty, the task of the teacher educators will be much easier than if these views are substantially different, and the arguments for teacher socialization will be greatly simplified. In fact, consistency in views would support recruitment over socialization experiences as an essential component of teacher education programs. We define program differences between the views of students and their faculties as indicating program challenge.

Movement of Student Teachers’ Views

Finally, we want to see whether student views move over time toward the views of program faculties. To the extent that such movement occurs, we can define this movement as a measure of program influence. We speculate that in the presence of clear professional norms and/or a shared set of beliefs and values within a given program (or program norms) on particular issues, we might expect to see students move toward these norms. We could expect such movement largely because of the likelihood of teacher education programs organizing a series of teaching and learning experiences around the pres-
ence of such professional/program norms. In contrast, to the extent that student views are shared across all sites—that is, to the extent that there is a strong lay cultural norm on a particular issue—we might expect faculty to have very little influence on student views.

In summary, we use “professional norm” to refer to situations in which faculty across teacher education programs share a common view. We use “program norm” to refer to situations in which faculty views differ from program to program but agree within programs. We use “lay culture norm” to refer to situations in which students across programs share a common view. We use “recruitment influence” to refer to situations in which student views differ from program to program upon entry to the programs. We use “program challenge” to refer to the degree to which student views upon entry to programs differ from faculty views. We use “program influence” to refer to movements in student views closer to faculty views upon program completion.

Methods

This paper draws on data gathered from the Teacher Education and Learning to Teach (TELT) Study carried out by the National Center for Research on Teacher Education (NCRTE) at Michigan State University between 1985 and 1990. The TELT study was designed to examine the relationship between teacher education and changes in teacher knowledge, skills, and dispositions as teachers and prospective teachers participated in different approaches to teacher education. The study documented the views of student teachers at different points in time as they progressed through their teacher education programs. Faculty were also queried about their views, their goals, and their practices.

While the study included three strategies of data collection—questionnaires, interviews, and observations—we focus our attention in this paper on questionnaire data. The questions address issues about which reasonable people can disagree, yet each is fundamental to teaching and learning. Students were asked to indicate the extent of their agreement or disagreement with each question, and faculty were asked to indicate how they would want graduates of their program to respond. Thus, faculty responses can be taken to represent programs goals. We concentrate on a set of nine questions that were presented both to faculty and to students, thus allowing us to compare their views on these issues. The questions of interest to us in this paper focus on beliefs and values in two important and controversial areas: the teaching of diverse students and the sources of success and failure when teaching these students.

The programs included in this study were selected for their differences. They do not represent a random sample of teacher education programs, but instead represent programs that we expected might demonstrate different sets of views. The programs included in our study represent current approaches to teacher development. Preservice programs are designed to educate people who intend to teach and who, in general, have never taught in schools. In-service programs are addressed to support the further development of people who are experienced teachers. Induction and alternative route programs are intended to induct people into the teaching profession and support their first year of teaching. In effect, this sampling strategy severely tests the idea that there are professional norms in teaching.

In this paper, we present data from nine teacher education programs located in various regions of the United States—five preservice, one induction, one alternate route, and two in-service programs. The distribution of the participants by program is shown in Table 1. Questionnaires were gathered from 113 faculty members, 552 student teachers at the moment of entering their programs, and 265 student teachers at the moment of exiting their programs. The selection of the participants in the study was purposeful and was not intended to be a representative sample. The selection of program faculty was as inclusive as possible; that is, the study attempted to include as many faculty as there were working with the student teachers studied. Therefore, in most cases, the small sample sizes in program faculty—with the exception of the faculty at Preservice 5—are not the result of design limitations but of the actual size of all the faculty working on the particular programs studied. Although in most cases the faculty included constitute the program population, the results of the analysis of those programs with small faculty sizes should be interpreted with caution.

Means and standard deviations were used to determine the point in the scale where the an-
TABLE 1
Teacher Education Programs and Population in the Study

<table>
<thead>
<tr>
<th>Teacher education program</th>
<th>Faculty</th>
<th>Student teacher entry</th>
<th>Student teacher exit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservice:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>44</td>
<td>126</td>
<td>53</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>71</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>33</td>
<td>14</td>
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<tr>
<td>4</td>
<td>5</td>
<td>53</td>
<td>27</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>124</td>
<td>49</td>
</tr>
<tr>
<td>In-service:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>36</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td>Induction:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>53</td>
<td>40</td>
</tr>
<tr>
<td>Alternate Route:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>33</td>
<td>27</td>
</tr>
<tr>
<td>Totals</td>
<td>113</td>
<td>552</td>
<td>265</td>
</tr>
</tbody>
</table>

Answers of faculty, students, and graduates fell. F statistic tests were used to determine the degree of consensus (or lack thereof) among faculty, student teachers, and graduates, respectively. Hierarchical linear modeling enabled us to jointly analyze the responses of two separate groups (faculty and student teachers/graduates) and was used to determine the degree of correlation between the views of faculty and prospective teachers, and faculty and graduates, respectively. This analysis indicated, as well, the movement between entry- and exit-level views. Scatter plots were used to closely examine the correlations between faculty, students, and graduates.

Profiles of Teacher Education Programs

The matrix of the programs' most relevant self-reported characteristics at the time of the study are shown in Table 2. We used program data based on interviews, observations, and questionnaires to classify these programs into analytical categories. (For a more thorough description of these programs, see National Center for Research on Teacher Learning, 1991, and Teacher Education and Learning to Teach Study, 1986). The programs are grouped in Table 2, first, according to their tendency to incorporate either social constructivist or conventional/transmission elements in their philosophy and in the opportunities to learn they offer student teachers and, second, according to their structure. Within the programs with constructivist elements, the first is a preservice program; the next two are in-service programs; and the last one works with beginning teachers and is an induction program for already-certified teachers. Within the programs following a more conventional approach to teaching, the first four are preservice programs, and the last one works with beginning teachers and is an alternative route into teaching.

We used four inclusive criteria to place programs within constructivist tendencies to teacher education. First, we decided whether the program seemed to be driven by a particular theoretical view of learning to teach, congruent with current reform trends that emphasize teaching for understanding and a disposition to look at teaching as a vehicle toward a more equal and just society; second, we looked at whether the program view seemed to encourage student teachers to see pupils as makers of meaning; third, we decided whether the programs provided learning opportunities (i.e., dialogue, conversations) for student teachers and teacher educators to reflect and challenge traditional conceptions of the teacher role, the learners' role, subject matter, and pedagogy; and, fourth, we looked at whether learning to teach seemed to occur in context.

Preservice Constructivist 2 and In-service Constructivist 1, for instance, both had a theoretical view of how teachers learn to teach mathematics. The preservice program emphasized learning to teach mathematics for understanding, and In-service Constructivist 1 focused on developing in teachers a constructivist view of...
mathematics learning. Both theoretical approaches reject the view of learners as passive recipients of information (National Center for Research on Teacher Learning, 1991). In addition, both programs included intensive learning experiences. The preservice program provided teacher candidates with four-term course work in mathematics that interwove content, curriculum, and pedagogy, and it was "the only program in which developing preservice teachers' meaningful knowledge was an explicit goal," though the connections with classroom teaching were less intensive (National Center for Research on Teacher Learning, 1991, p. 25). In the In-service Constructivist 1 program, experienced teachers engaged in an intensive two-week summer institute and a year of in-classroom follow-up. Both programs offered student teachers "opportunities to re-think their ideas about traditional school mathematics and revise those ideas in the direction of current reform trends" (National Center for Research on Teacher Learning, 1991). Similar learning opportunities were available for participants in the In-service Constructivist 2 and Induction Constructivist programs. In the In-service Constructivist 2 program, teachers participated in a series of all-day workshops dedicated to writing and had support and guidance from trainers throughout the school year in their own writing and in implementing the particular approach to teaching writing espoused by the program (Mosenthal & Ball, 1992). This approach to writing—writing as a process, writing for a purpose and within a social context—was distinctively coherent among program members and student teachers (National Center for Research on Teacher Learning, 1991). The Induction Constructivist program had subject matter study groups that raised the awareness of the purposes of classroom learning and the capabilities of elementary pupils in generating knowledge. Summer seminars were designed to help interns apply conceptions of subject matter they had learned onto their own work and to reexamine critically traditional views of learners and about learning and teaching subject matter as well. Interns in this program received classroom support and follow-up in their first year of teaching (National Center for Research on Teacher Learning, 1991). Full-time mentoring for beginning teachers within a community of learners was a strong theme of the program (Feiman-Nemser & Parker, 1993).

We used four inclusive criteria to place programs within conventional or transmission approaches to teacher education. First, we decided whether the program seemed to be driven by conventional/transmission views or by no particular theoretical view of teaching and learning to teach; second, we looked at whether programs showed a tendency to see pupils as fixed entities or uncritical recipients of knowledge; third, we decided whether the goal of the program was to help teachers learn to teach to fit into preexisting school structures; and, fourth, we looked at whether teaching knowledge about subject matter and pedagogy seemed to be divorced from practice.

The four preservice conventional programs (1, 3, 4, and 5), according to the NCRTE final report, taught subject matter courses that "were not bound by any central thematic or philosophical orientation. [Although the courses were required,] their content was determined by whoever taught them. [In short,] no particular programmatic theory drove these courses" (National Center for Research on Teacher Learning, 1991, p. 25). For the most part, instructors in these conventional preservice programs "avoiding making ideas about subject matter intellectually challenging" and instead presented student teachers with strategies "to engage elementary pupils and to make subject matter teaching more creative. This approach fit the expectations of teacher candidates, many of whom expressed the view that good mathematics teaching made learning fun for students" (p. 24–25). Similar tendencies were also present in the teaching of writing in the Alternative Route Conventional program (National Center for Research on Teacher Learning, 1991, p. 42). In none of the programs was there explicit mention that teachers were being encouraged to think of pupils as makers of meaning. Similarly, these programs did not seem to make an attempt at challenging traditional beliefs regarding teaching, learning, and the teacher role, and most of these programs' purpose was stated as preparing teachers to "be effective" in schools or to develop competencies that had been identified by the state. Most of the learning-to-teach experiences in these programs seemed to occur, for the most part, divorced from practice (National Center for Research on Teacher Learning, 1991, p. 44).
### TABLE 2
Programs With Social Constructivist Tendencies Toward Teacher Education

<table>
<thead>
<tr>
<th>Who enters this program?</th>
<th>What are the program’s opportunities to learn?</th>
<th>What characterizes the program’s philosophy and curriculum implementation?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preservice Constructivist 2</strong>&lt;br&gt;Second-year college students who will study to become elementary teachers. High admission standards.</td>
<td>This is an innovative elementary teacher education program. Different from mainstream programs in its focus on subject matter, research on learning, and cooperating mentor teachers. Offered a four-term mathematics content and pedagogy sequence. Emphasis on problem solving and dialogue within a learning community. Students saw demonstrations of innovative mathematics teaching.</td>
<td>Emphasis on the conceptual foundation of all subjects, ideas, and procedures, rather than facts and rules. The central theme evolved around teaching academic subjects for understanding. Offered opportunities to rethink and revise student teachers’ ideas about traditional subject matter teaching in the direction of current reform trends. Curriculum is seen as flexible and responding to students’ diverse learning needs.</td>
</tr>
<tr>
<td><strong>In-service Constructivist 1</strong>&lt;br&gt;Experienced teachers with five years minimum in grades K–6. Students are mostly women, few minorities. Better-than-average teachers.</td>
<td>Two-week residential summer institute courses. Intensive classroom follow-up during the school year. Teachers experienced first hand the kind of teaching they are expected to adopt, observed demonstrations, and learned about the rationale for the innovative practices.</td>
<td>Constructivist orientation to teaching math. To prepare excellent mathematics teachers and leaders in their own school districts. Offered opportunities to rethink and revise teachers’ ideas about traditional subject matter teaching in the direction of current reform trends.</td>
</tr>
<tr>
<td><strong>In-service Constructivist 2</strong>&lt;br&gt;Experienced teachers with one year minimum in grades K–6. Students are mostly women. Good classroom management skills. Better-than-average teachers.</td>
<td>Summer-long program courses or workshops on the writing process. Intensive classroom follow-up and feedback throughout the school year. The program emphasizes the concept of teachers as learners. Teachers observed demonstrations about how to set up a “writer’s workshop” and had ongoing conversations about experiences with other teachers and trainers.</td>
<td>Approach focused on the process of writing. Less focus on rules and conventions. To prepare teachers to approach teaching as a process of learning. They are taught to write as well as pedagogy to teach writing. Emphasis on rethinking role, restructuring classrooms, and teaching practice.</td>
</tr>
<tr>
<td><strong>Induction Constructivist</strong>&lt;br&gt;First-year certified elementary teachers and graduate interns. Preference to good students attending or planning to attend graduate school.</td>
<td>Certified teachers take graduate courses during summer before and after first year of teaching. Courses are on curriculum, child development, and multicultural studies. Mentors engage novices in dialogue and help them put into practice what they have learned in their preservice program.</td>
<td>The predominant conceptual view of teaching is cognitive development and social learning theory with an emphasis on language learning. Focus on process approach to teaching subject matter. Classroom assistance to implement different approach to teaching. The program encourages professional growth through reflection on teaching. Novices are encouraged by mentors to articulate the rationale behind their practices,</td>
</tr>
</tbody>
</table>
### TABLE 2
Programs With Social Constructivist Tendencies Toward Teacher Education

<table>
<thead>
<tr>
<th>How does the program conceptualize its &quot;product&quot;?</th>
<th>Why do teachers go to this program?</th>
<th>What is the program's purpose?</th>
<th>What are the approaches to diversity imbedded in the program?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A teacher with an enhanced level of knowledge about the nature of subject matter, children's learning, and effective instruction. The teacher is expected to be a facilitator within a community of learners.</td>
<td>Attractive as a reformed program. Good reputation.</td>
<td>The purposes are academically oriented. Emphasized helping preservice elementary teachers gain competence with mathematical ideas. Developing preservice teachers' meaningful knowledge of subject matter as a goal.</td>
<td>Not explicit links between issues of cultural diversity and pedagogy. Generally issues of equity and cultural difference when addressed were dealt with apart from subject matter. Required courses in social foundations of teaching focusing on racial, social, ethnic, and gender differences. Emphasis on teaching for understanding does, however, place pupils' meaning-making as the focus of instruction.</td>
</tr>
<tr>
<td>Excellent classroom teachers in mathematics as well as preparing leaders. The teacher is expected to be a resource, a facilitator, to ask good questions, and to probe student thinking. Work in small learning groups solving mathematics problems is encouraged by the program.</td>
<td>Because of the program emphasis on computers, reputation, and the sponsorship of a prestigious college. To improve skills in teaching mathematics or to focus on problem-solving.</td>
<td>This program seeks to educate teachers to help in the development of the individual child. The program aims to educate mathematics teachers who can help kids construct mathematical knowledge.</td>
<td>Tried to provide ways for rethinking what it means to know, teach, and learn mathematics within a constructivist perspective where students' meaning-making is the focus of instruction.</td>
</tr>
<tr>
<td>A teacher with good classroom management skills and who is able to develop the individual child. A teacher who encourages critical thinking and understanding. Teachers as learners and facilitators. A teacher who arranges the environment to be conducive for writing and talks to students about their writing within a community of writers.</td>
<td>Because of the alternative for changing the classroom routine. The reputation of the program. The sponsorship of a recognized college to manage a new approach to teaching.</td>
<td>This program’s purposes are to educate teachers to support the development of the individual child, and to master a new approach to teaching.</td>
<td>Program personnel promoted a way of organizing instruction and the role of the teacher in the learning process intended to accommodate diverse learners.</td>
</tr>
<tr>
<td>A teacher who is able to link practical experience with teaching knowledge. A teacher who knows how to teach in relation to how children learn and think. Teachers as mentors. Expected to engage students in the production of knowledge.</td>
<td>For the support they receive as first-year teachers. The sponsorship of this program from the school (district) and a recognized university.</td>
<td>The program’s purpose is to support teachers and provide clinical experience. To help novices translate beliefs and understandings learned in their preservice program (in the same university) into workable practices.</td>
<td>Encouraged teachers to think and reflect about the role that their learners’ background plays in learning. Intern seminars and clinical support designed to foster such thinking.</td>
</tr>
</tbody>
</table>

(continued on page 164)
### TABLE 2

**Programs With Conventional Tendencies Toward Teacher Education**

<table>
<thead>
<tr>
<th>Who enters this program?</th>
<th>What are the program’s opportunities to learn?</th>
<th>What characterizes the program’s philosophy and curriculum implementation?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preservice Conventional 1</strong>&lt;br&gt;Second-year college students who will study to become elementary teachers. Admits students with an average 2.5 GPA.</td>
<td>Clinical support.&lt;br&gt;Mainstream program with a “normal school” approach to teacher education.&lt;br&gt;Combines the study of theory and methods with clinical experience.</td>
<td>Long-standing mission to prepare teachers for the state schools. Courses presented teacher candidates with strategies and gimmicks to engage elementary pupils and to make teaching of subject matter creative and fun. Loose articulation between course offerings and practice. The curriculum seems to be fixed.</td>
</tr>
<tr>
<td><strong>Preservice Conventional 3</strong>&lt;br&gt;Being a historically Black institution, the majority of the students come from minority groups. A large number of students are mature or nontraditional who work while going to school.</td>
<td>The program has academically oriented courses and field experience. It can be completed in two years.</td>
<td>Competency-based program that prepares elementary and secondary school teachers for “the commonwealth of the state and the nation.” Courses presented teacher candidates with strategies to engage elementary pupils in subject matter learning. There seems to be loose articulation between course offerings and practice.</td>
</tr>
<tr>
<td><strong>Preservice Conventional 4</strong>&lt;br&gt;Second-year college students. High standards of admission.</td>
<td>Academically oriented program. Promotes critical thinking in teaching. But does not provide professional teacher education. Teachers have to make the links themselves between subject matter and pedagogy.</td>
<td>Tendency to support a liberal education, the whole person, and the teacher as learner. Lacks articulation between course offerings and practice.</td>
</tr>
<tr>
<td><strong>Preservice Conventional 5</strong>&lt;br&gt;Many students come from the nearest community college and some from the university. Most come from the state and are about 21 and 22 years old. Standards of admission require 2.6 GPA for undergraduate and 3.0 for graduate level.</td>
<td>A five-year program that integrates research on teaching in the curriculum leading to initial certification to teach in elementary schools. Certificate is given after the master’s degree is obtained.</td>
<td>In spite of the program’s rhetoric—emphasizing teaching for critical thinking and learning processes—courses resemble traditional approaches to educate teachers and tend to present teacher candidates more with strategies to engage elementary pupils than with innovative ways of teaching subject matter. The state performance assessment dominates instruction in the program. Loose articulation between course offerings and practice.</td>
</tr>
<tr>
<td><strong>Alternate Route Conventional</strong>&lt;br&gt;Experienced professionals in disciplines other than teaching.</td>
<td>Emphasis on the teacher as a decision-maker and on developing generic teaching skills. Also, emphasis on the subject matter knowledge and practical experience they are expected to bring into the classroom.</td>
<td>The program emphasizes context and generic teaching skills as well as participatory behavior. Teaching practice is disconnected from the program where teachers learn about teaching. There is little attention to novices’ thinking or the justification of good practice.</td>
</tr>
<tr>
<td>Program</td>
<td>How does the program conceptualize its “product”?</td>
<td>Why do teachers go to this program?</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>A teacher who “gladly would learn and gladly teach.” An individualistic conception of teaching/knowledge seems to prevail.</td>
<td>To learn how to teach, and because it is the primary teacher training program in the state.</td>
<td>The purpose of the program is to provide academically oriented technical training to train effective teachers.</td>
</tr>
<tr>
<td>A teacher who is qualified, on the base of 14 generic competencies, to teach in the public schools. An individualistic conception of teaching/knowledge seems to prevail.</td>
<td>Open admission policy. The state pays tuition for those in need.</td>
<td>The program’s purpose is to educate professionally competent and effective teachers.</td>
</tr>
<tr>
<td>A teacher who possesses highly academic skills and a good understanding of school and society. Knows how to apply teaching methods and is critical about doing so. Helps students make connections. An individualistic conception of teaching/knowledge seems to prevail.</td>
<td>Program helps develop individuals who can move from the classroom to administrative and policy arenas.</td>
<td>This program prepares teachers who can empower students and use problem solving approaches. Teachers who can understand the cultural and social context of students.</td>
</tr>
<tr>
<td>A &quot;professional teacher&quot; who makes decisions about what and how students will learn based on research as well as on &quot;clinical insights.&quot; Relies on the &quot;direct teaching model,&quot; which is the model of the state. An individualistic conception of teaching/knowledge seems to prevail.</td>
<td>To become effective teachers. To gain a certificate. To learn critical teaching skills.</td>
<td>This program prepares professional teachers who will be leaders in schools. This program addresses teaching competencies that have been identified by the state.</td>
</tr>
<tr>
<td>A teacher who follows the curriculum in accordance with district regulations, increases student achievement, and responds to students' culture and needs. An individualistic conception of teaching/knowledge seems to prevail.</td>
<td>Career change. Apply skills to teaching. “Give something back.” To learn the ropes and fit in.</td>
<td>The purpose of this program is to increase the quantity and to improve the quality of teachers in the state. To bring people with a solid disciplinary background into teaching.</td>
</tr>
</tbody>
</table>
But in spite of the similar characteristics shared by the programs, allowing us to place them as following conventional or social constructivist tendencies, these programs do vary in a number of dimensions. A more detailed description of programs' differences and similarities is shown in Table 2. Of particular interest to us are the third, fourth, sixth, and seventh columns. The third column indicates, very crudely, the program's stated philosophy; the fourth indicates the type of teacher they hoped to produce; the sixth column indicates the official program's purposes; and the seventh column indicates the approaches to diversity imbedded in the program. Together, these descriptors give us an abridged sketch of the substantive features of these programs, of the ways in which we might expect them to try to influence their student teachers.

Table 2 indicates five important points for our purposes. First, these programs, at least on paper, seem to subscribe to different ideas about what teachers should know and be able to do upon program completion. For instance, while Preservice Conventional 1 claims to provide technical training so that teachers can be effective in the classroom, Preservice Constructivist 2 seeks to develop in teachers meaningful knowledge of subject matter to allow them to teach for understanding. While Preservice Conventional 3 emphasizes competencies, Preservice Conventional 4 provides a liberal arts education, and Preservice Conventional 5 aims to prepare teachers as school leaders who are qualified in the teaching competencies identified by the state (see Table 2, columns three and six).

Second, the expected “product” from the different teacher education programs corresponds to the program’s philosophy and purpose. In general terms, a group of programs sees teachers as facilitators, resource advisors, or mentors of pupils—such as Preservice Constructivist 2, Preservice Conventional 4, In-service Constructivist 1, In-service Constructivist 2, and Induction Constructivist. Other types of programs see their graduates as effective teachers who are able to meet the challenges of the day-to-day classroom and school needs—such as Preservice Conventional 1, Preservice Conventional 3, Preservice Conventional 5, and the Alternate Route Conventional programs (see Table 2, column four).

Third, another important point is the degree to which programs have an inquiry orientation to learning to teach. Those programs with an inquiry orientation tend to look at the teacher as a reflective practitioner and encourage teachers to become learners themselves, exploring along with their pupils how each individual can become a better learner. Examples of programs stressing inquiry and reflection as part of teaching and learning to teach are Preservice Constructivist 2, Preservice Conventional 5, In-service Constructivist 1, In-service Constructivist 2, and Induction Constructivist (see Table 2, column two).

Fourth, these programs receive substantially different kinds of students and go about preparing them to teach in considerably different ways (see Table 2, column one). For instance, Preservice Conventional 4 holds very high admission standards but “offer[s] a minimal program ... to turn out people who are academically strong and flexible learners ... so they can find things out for themselves,” while Preservice Conventional 3 has an open admission policy and is competency-based (Teacher Education and Learning to Teach Study, 1986, p. 1). Although both the Alternate Route Conventional and Induction Constructivist programs work with novice teachers, they follow different approaches. Alternate Route Conventional helps bachelor’s degree recipients develop generic teaching skills, while Induction Constructivist takes people who are already certified to teach and provides them with a master’s degree that reinforces a reflective view of teaching and learning focused on understanding student diversity already acquired in their certification program.

Fifth, approaches to understanding student diversity varied across programs (see Table 2, column seven). Most preservice programs addressed diversity issues through foundations and psychology courses. Others—such as Preservice Conventional 3—relied on a diagnostic prescriptive model of teaching and learning. The two in-service constructivist and the Induction Constructivist programs had statements indicating purposefully organized learning experiences that placed student diversity at the center of teaching and learning to teach (National Center for Research on Teacher Learning, 1991). For instance, the statement in the Induction Constructivist program—a teacher who knows how
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to teach in relation to how children learn—underlines these programs’ efforts in encouraging teachers to think and reflect about the role of their learners’ background in teaching and learning. Other programs with more specific statements about diversity—such as the Alternate Route Conventional program—seemed to have few opportunities for student teachers to analyze critically the teaching of diverse students.

From these data alone, we might conclude that the field of teacher education is rather heterogeneous with respect to any common professional norm about the practice of teaching. However, we must await evidence from our data of how actual program tendencies or characteristics may shape or be shaped by participants beliefs.

Beliefs About Teaching Diverse Students

In our research, we were concerned with looking at teacher education programs as one of the places where teachers are expected to acquire new dispositions about the teaching of diverse students. We wanted to know the expectations of teacher educators about how prospective and experienced teachers in their programs conceptualize teaching diverse students and the degree to which these expectations shape their students’ views. To this end, we asked teacher educators how they would like the graduates of their program to think about a series of dilemmas to be confronted when teaching diverse students; the same set of questions were also asked of incoming and graduate student teachers. These dilemmas refer to the structure and nature of the curriculum, the criteria for assessing student progress and designing curriculum, and the organization of the classroom and the school. Specifically, we explored this issue as multi-dimensional. What are teachers’ expectations of diverse students (i.e., should they use minimum competency objectives for “slow learners”)?

How do they conceive of teaching these students (i.e., teacher-directed, whole-group instruction for poor pupils or English as the only language of instruction)? How do they conceive of their instructional strategies (i.e., do they think it is possible to tailor instruction to specific students’ needs)? How do they think about evaluating these students (i.e., should they use the same standards in evaluating the work of all students in class)? How do they conceive of typical ways that have been used to arrange the classroom (i.e., ability groups) and school environments (i.e., tracking)? After analyzing the faculty responses, we turn to the analysis of the views of prospective and experienced teachers in the different programs studied at the time they initiated their programs (entry level) and upon graduation (exit level) and look at the similarities and differences across programs for both faculty and teachers.

Faculty Views on Teaching Diverse Students

We first explored how teacher educators would like their graduates to respond to issues involving teachers’ expectations of diverse students by asking faculty about a commonly applied solution to managing the instruction of students who are “behind” in relation to other students in a class. The specific question read: “When working with slow learners, teachers should focus nearly all their instruction on minimum competency’ objectives.” In other words, we wanted to understand what faculty views are regarding the instructional standards teachers should hold for their students even if these students are seen as “slow” by the system and by teachers. Faculty, as a group, expressed disagreement with the statement (see Table 3, line 1.1). Faculty views within programs, however, reveal differences related to the apparent existence of program norms. Specifically, these differences related to program norms are evident among the faculty in Preservice Conventional 1, Preservice Conventional 3, and Alternate Route Conventional who seemed to favor the use of minimum competency objectives to a larger degree than faculty in any of the other programs studied.

Closely related to expectations of pupils’ competency is the way in which teachers conceive of teaching students who are unlike the typical mainstream student. For example, how would a teacher deal with students who come from low-income families? Would they feel justified in relying primarily on teacher-directed, focused, whole-group instruction? And how about pupils who are different because their main language is other than English? Would teachers favor instruction in the pupil’s primary language? Faculty answers to these questions seem to indicate that they conceive of these issues as quite different and separate from one another. Regarding the instruction of kids from low-income families, faculty differed across programs—another indica-
### TABLE 3
**Teacher Education Faculty and Student Teachers’ Beliefs on Teaching Diverse Learners As Expressed by Means, Standard Deviations, F Statistics, and Correlations**

<table>
<thead>
<tr>
<th>Item description</th>
<th>Line no.</th>
<th>Overall field view means and standard deviations</th>
<th>Across-program differences</th>
<th>Program challenge expressed as correlations</th>
<th>Program effect expressed as correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Faculty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 6.1, SD = 1.2</td>
<td>1.1</td>
<td>Faculty:</td>
<td>F = 4.446, p &lt; .0001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 5.1, SD = 1.3</td>
<td>1.2</td>
<td>Students exit:</td>
<td>F = 2.1158, p &lt; .05</td>
<td>.26</td>
<td>.57</td>
</tr>
<tr>
<td>M = 4.7, SD = 1.5</td>
<td>1.3</td>
<td>Students entry:</td>
<td>F = 3.1546, p &lt; .0017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 6.1, SD = 1.2</td>
<td>2.1</td>
<td>Faculty:</td>
<td>F = 2.8372, p &lt; .0069</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 5.6, SD = 1.3</td>
<td>2.2</td>
<td>Students exit:</td>
<td>F = 7.2098, p &lt; .0001</td>
<td>.64</td>
<td>.71</td>
</tr>
<tr>
<td>M = 5.2, SD = 1.4</td>
<td>2.3</td>
<td>Students entry:</td>
<td>F = 9.4890, p &lt; .0001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 6, SD = 1.3</td>
<td>3.1</td>
<td>Faculty:</td>
<td>F = 1.2037, ns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 5.3, SD = 1.5</td>
<td>3.2</td>
<td>Students exit:</td>
<td>F = 2.1900, p &lt; .05</td>
<td>.36</td>
<td>.50</td>
</tr>
<tr>
<td>M = 4.9, SD = 1.5</td>
<td>3.3</td>
<td>Students entry:</td>
<td>F = 4.2005, p &lt; .0001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 3.8, SD = 2</td>
<td>4.1</td>
<td>Faculty:</td>
<td>F = 3.9142, p &lt; .0005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 4, SD = 1.7</td>
<td>4.2</td>
<td>Students exit:</td>
<td>F = .8191, ns</td>
<td>-.16</td>
<td>.36</td>
</tr>
<tr>
<td>M = 3.8, SD = 1.8</td>
<td>4.3</td>
<td>Students entry:</td>
<td>F = 5.3444, p &lt; .0001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 5, SD = 1.8</td>
<td>5.1</td>
<td>Faculty:</td>
<td>F = 1.5458, ns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 4.3, SD = 1.8</td>
<td>5.2</td>
<td>Students exit:</td>
<td>F = 6.8548, p &lt; .0001</td>
<td>.71</td>
<td>.53</td>
</tr>
<tr>
<td>M = 4, SD = 1.8</td>
<td>5.3</td>
<td>Students entry:</td>
<td>F = 5.0034, p &lt; .0001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 4.2, SD = 2</td>
<td>6.1</td>
<td>Faculty:</td>
<td>F = 4.7962, p &lt; .0001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 4.2, SD = 1.9</td>
<td>6.2</td>
<td>Students exit:</td>
<td>F = 8.2637, p &lt; .0001</td>
<td>.72</td>
<td>.63</td>
</tr>
<tr>
<td>M = 3.6, SD = 1.9</td>
<td>6.3</td>
<td>Students entry:</td>
<td>F = 13.5203, p &lt; .0001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 4.1, SD = 2</td>
<td>7.1</td>
<td>Faculty:</td>
<td>F = 3.7522, p &lt; .0007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = 3.6, SD = 2</td>
<td>7.2</td>
<td>Students exit:</td>
<td>F = 5.4400, p &lt; .0001</td>
<td>.42</td>
<td>.36</td>
</tr>
<tr>
<td>M = 2.9, SD = 1.9</td>
<td>7.3</td>
<td>Students entry:</td>
<td>F = 13.8187, p &lt; .0001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Faculty n = 113; Student entry n = 552; Student exit n = 265.

**Likert Scale**

1 = strong agreement, 7 = strong disagreement.

Two or more groups differ significantly at the p < .05 level according to Scheffé pairwise mean comparisons.

Consensus across programs according to the nonsignificant F statistic and a standard deviation smaller than 2.
tion of the influence of program norms—while overall, they tended to disagree with the use of teacher-directed, focused, whole-group instruction (see Table 3, line 2.1). A tendency to agree with the use of teacher-directed instruction was specifically observed among faculty in Preservice Conventional 1, Preservice Conventional 5, and Alternate Route Conventional programs. Concerning the idea that “all students should be taught in English,” faculty across programs showed lack of consensus in their views, as well as ambivalence, reflecting the controversy that surrounds this issue country-wide (see Table 3, line 7.1). The lack of norms in the field regarding English as a language of instruction cuts across program norms where faculty in Preservice Conventional 1, Preservice Conventional 3, and Preservice Conventional 5 showed a tendency toward agreement with the statement, but faculty from programs Preservice Conventional 4 and Alternate Route Conventional expressed disagreement with the view, a position similarly adopted by those programs that have social constructivist tendencies to teacher education such as Induction Constructivist and In-service Constructivist 1. The disagreement expressed across these programs’ faculty is probably influenced by the needs of the population in the programs’ geographical location.

Teachers’ conception of their instructional strategies is closely determined by whether or not they think it is possible to tailor instruction to specific students’ needs. When we presented the statement, “It is impractical for teachers to tailor instruction to the unique interest and abilities of different students,” faculty across programs showed consensus in their disagreement with the statement, sharing what we call a professional norm in this regard (see Table 3, line 3.1). Thus, faculty across programs expect their graduates to see as important the tailoring of instruction to the unique interests and abilities of diverse students.

A closely related issue is the management of classrooms with a considerable number of diverse students. In our study, we explored teachers’ views regarding the more common solutions to this issue found in schools across the country: ability groups and tracking. We found interesting patterns in faculty responses to these items. Faculty across programs share a professional norm in their disagreement with the idea that required high school courses should have separate classes for low-achieving and high-achieving students, but regarding ability grouping, we did not find evidence of professional norms; instead we saw some evidence of program norms (see Table 3, lines 4.1 and 5.1). For instance, three programs—In-service Constructivist 1, Alternate Route Conventional, and Preservice Conventional 3—support the idea of grouping students by level of performance. Faculty in the other programs tended to disagree with the use of ability groups with the exception of Preservice Conventional 1, whose faculty were ambivalent.

A crucial consideration regarding the teaching of diverse students is the issue of assessment and whether teachers should use the same standards in evaluating the work of all pupils in a class. Faculty across programs showed a great degree of ambivalence and lack of consensus in relation to this statement (see Table 3, line 6.1). Faculty in In-service Constructivist 2, for example, strongly opposed the use of uniform standards in evaluating the work of all students in the class, favoring—likely because of their program’s norms—a more individualized use of evaluations attuned to specific abilities of their students. Conversely, faculty in Preservice Conventional 1 tended to favor the use of uniform standards.

In summary, the pattern of responses to our statements about managing student diversity suggest that faculty are opposed to a delimiting curriculum for less-advantaged students. They were opposed to tracking students in required high school courses, to minimum competencies for slow learners, to large-group direct instruction when teaching students from low-income families, and to the idea that tailoring instruction to different students was not practical. The general thrust of their views is that less-advantaged students should not be separated from more-advantaged students and given a curriculum of minimum competencies and direct instruction and that teachers can tailor their instruction to the unique interests and abilities of their students. Thus, they appear to believe that some form of differential treatment is useful.

The other three statements we included all propose uniform treatment of diverse students. One statement suggests that teachers should avoid grouping students by ability. The other
two suggest, respectively, that all students should be taught in English and that teachers use the same standards in evaluating the work of all their students. What is particular about these three statements is that faculty demonstrate both a wide range of views and a wide range of patterns of views across the three statements. With the exception of faculty in programs with constructivist tendencies—where program norms seem to provide a clearer sense of direction—teacher educators views seem to reflect a lack of consensus regarding the effects brought about by the interactions that occur between teacher action and student background in the classroom context.

Prospective and Experienced Teachers’ Views on Teaching Diverse Students at the Initial and Final Stages in Their Teacher Preparation Program

Similar to the tendencies observed in teacher education faculty, prospective and experienced teachers at the point of entry in their programs had a strong belief in the need to provide some form of differential treatment to help pupils’ learning. For example, teacher education entrants showed a slight tendency to disagree with teachers’ use of minimum competency objectives for “slow learners,” use of teacher-directed whole-group instruction when working with poor children, and the idea that teachers cannot tailor instruction to specific student needs (see Table 3, lines 1.3, 2.3, and 3.3). This tendency became more pronounced at the exit level (see Table 3, lines 1.2, 2.2, and 3.2). There were, however, significant differences in views across programs. We found significant differences among program entrants on views about the practicality of tailoring instruction to specific student needs, notably between Induction Constructivist entrants, who favored tailoring instruction to students’ individual needs, and Preservice Conventional 5, Preservice Conventional 3, and Preservice Conventional 1 entrants, who were ambivalent in their views. We also found significant differences across programs in views regarding teachers’ use of teacher-directed, whole-group instruction when working with poor children. Entrants to Preservice Conventional 5 assumed that direct instruction is more beneficial for children of low-income families as did entrants to Preservice Conventional 1. These views stand in stark contrast with those of entrants to In-service Constructivist 2, Induction Constructivist, and In-service Constructivist 1, who opposed the use of such a teaching strategy. These differences clearly indicate the influence of program norms in students’ recruitment. We found similar patterns at the exit level, but saw only significant differences across programs’ views regarding teachers’ use of whole-group, teacher-directed instruction with children from low socio-economic background. Graduates from In-service Constructivist 2, Induction Constructivist, and In-service Constructivist 1 programs showed more extreme views toward disagreement than graduates from Preservice Conventional 5, Alternate Route Conventional, and Preservice Conventional 1 programs.

Similar to faculty views, we found a large degree of disparity in views among incoming student teachers across and within programs concerning items suggesting uniform treatment of students across the board. Entrants across the programs provided a wide range of responses to our statements regarding ability groups and tracking in high school courses, the use of uniform standards in evaluating students’ knowledge, and the idea of English as a language of instruction (see Table 3, lines 4.3, 5.3, 6.3, and 7.3). A similar degree of dispersion can be observed in graduates’ responses toward the same items; in fact, on the average, these graduates showed neutral responses across programs to each one of our statements, a result that serves as evidence of the wide dispersion within programs in these views (see Table 3, lines 4.2, 5.2, 6.2, and 7.2). Significant differences in views across programs were also observed in these items. For example, at the entry level, we found significant differences among In-service Constructivist 2 entrants who rejected the use of ability groups and those in Preservice Conventional 3 and Preservice Conventional 1 who favored its use. Graduates as a whole, however, showed ambivalence in their views across programs regarding the use of ability groups.

In the statement dealing with tracking in high school, entrants’ views in Preservice Conventional 1 and Alternate Route Conventional programs showed a high degree of ambivalence, whereas entrants in the Induction Constructivist program tended to disagree with tracking, indicating the effects of program norms on recruit-
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ment strategies. This pattern became more pronounced at the exit level with graduates from the Induction Constructivist program showing significantly different views from graduates in the Preservice Conventional 4, Preservice Conventional 1, Preservice Conventional 5, and Alternate Route Conventional programs who ranged from favoring the idea of tracking to expressing more ambivalent views. Similarly, entrants to In-service Constructivist 2, Induction Constructivist, and In-service Constructivist 1 have views that are significantly different—rejecting the use of uniform standards in evaluating students’ knowledge—from those of entrants in the four conventional preservice programs, where the tendency ranged from agreement to ambivalence. A similar pattern was observed among graduates.

The views of entrants on average, seem to favor English as the language of instruction for all students. Nevertheless, views against the use of English as a language of instruction for all pupils were found among entrants in the Induction Constructivist program, located in a Southwestern university that emphasizes attention to students’ needs. These tendencies may be a response to the program’s geographical location and to the large concentration of Spanish-speaking pupils in the area. The rest of the programs’ entrants expressed from mild to strong agreement with the uniform use of English as language of instruction, with the exception of In-service Constructivist 2, whose entrants expressed ambivalence. At the exit level, graduates’ views in the Induction Constructivist program remained strong against the use of English as a language of instruction for all pupils and were significantly different from those of graduates in the five conventional-oriented programs, whose views ranged from acceptance to ambivalence.

In summary, the pattern of responses observed among entrants to teacher education programs indicate that there is not a lay cultural norm among entrants to teacher education regarding the teaching of diverse students. In few cases, however, a recruitment influence by particular programs is evident such as is the case in the In-service Constructivist 2 program, where teachers show clear opposition to ideas such as the use of ability groups, the use of same standards in evaluating the work of all students in class, and the use of teacher-directed, focused, whole-group instruction for kids of low-income families. All of these are views that are stated clearly in the philosophy of the program that recruited them. A similar situation is observed in the Induction Constructivist program where entrants strongly reject the idea that they cannot tailor instruction to students’ needs, disagree with the idea of English for teaching all children, and oppose tracking in high school. Similarly, entrants to the In-service Constructivist 1 program share with entrants in the Induction Constructivist program their opposition to the use of uniform standards in evaluating the work of all students in class and to the use of teacher-directed, focused, whole-group instruction for kids of low-income families.

Graduates’ responses to statements exploring how they would manage teaching diverse students do not tell us how they would actually teach, but they do tell us about their disposition toward a number of strategies commonly used in U.S. Schools. A possible conclusion we reach after looking at these trends is that teacher education as a whole does not seem to challenge prospective and experienced teachers’ views about teaching diverse students; indeed, it seems to create a great degree of uncertainty regarding the teaching of diverse students. Nevertheless, graduates from constructivist-oriented programs seemed to hold clearer views on these issues, though some of these views were already evident at the programs’ entry point. We must, however, examine whether movement in views occurred among faculty and student teachers before arriving at conclusions regarding teacher education influence.

Examining Movement in Prospective and Experienced Teachers’ Views With Regard to Teaching Diverse Students

Across programs, there was an overall positive change in the views of graduates toward those of their faculty, as given by the size and the direction of the correlation observed between views held by the faculty and those of prospective and experienced teachers at the entry and exit points of their programs. The change occurred for the most part in four areas. For example, in the case of whether teachers should avoid grouping students by ability or level of performance, whereas initially student teachers and faculty views had
an inverse correlation (−.16), at the point of exiting the program, graduate views had effectively moved in the direction of their faculty (.36) and were more consensual in their views, though the overall tendency was still characterized by a uniform degree of ambivalence on this issue. A modest change was observed in the degree to which student teachers approach the views of their faculty regarding the use of minimum competency objectives to focus instruction when working with slow learners, showing a tendency to disagree with the idea (with a change in correlation from .26 to .57).

The correlation between faculty and student teachers’ views across programs regarding whether it is impractical for teachers to tailor instruction to the unique interests and abilities of different students shows a moderate movement toward faculty expectations that their graduates would disagree with such a statement (with a change in correlation from .36 to .50). Similarly, the view concerning the use of teacher-directed, focused, whole-group instruction when working with students from low-income families approached faculty expectations at the program exit level indicating that across programs graduates seem to believe that such a practice is not desirable, though the change is modest and there was already a tendency toward disagreement at the entry level (with a change in correlation from .64 to .71).

In three areas, the correlation is lower at the exit level than at the entry level with a corresponding increase in the level of dispersion observed among graduates’ views. For instance, concerning whether required high schools courses should have separate classes for low- and high-achieving students, the passage of student teachers through their programs reduced the size of the correlation between faculty and graduate views at the exit level and failed to challenge graduates’ divergent views toward tracking (with a change in correlation from .71 to .53). Similarly, faculty and student teachers’ agreement regarding whether teachers should use the same standards in evaluating the work of all pupils in the class seems to be slightly higher at the entry than at the exit level with a large degree of divergence on this issue (with a change in correlation from .72 to .63). The agreement between faculty and student teachers concerning the view that all students should be taught in English diminished at the exit level with a variety of conflicting views toward this issue (with a change in correlation from .42 to .36).

In summary, with the exception of the three statements regarding school organization, assessment, and the language of instruction showing a large degree of divergency across the field of teacher education, there is positive movement in the views of student teachers toward those of their faculty from their entry to exit time particularly regarding classroom management and the nature and structure of the curriculum and instruction. The movement of student teachers’ views observed seems to be due to the “pull” within specific programs where stronger, more clearly developed norms may positively affect movement in the direction of faculty expectations (such as the one preservice, two in-service, and the induction approaches discussed above—all with a constructivist tendency to teacher education). While no substantial changes were observed overall in the content of views of teacher education graduates—that is, ambivalent views toward ability grouping remained ambivalent across programs—it is possible to observe program influence as it relates to the direction of the movement of graduates’ views, which consistently occurred in a direct positive relation with the expectations of the faculty. Thus, it may be possible to speculate that some influence of teacher education is observed regarding the movement of graduates’ views after they finish their program and that the lack of substantial change in the content of graduates’ views may be due to the conflicting views about teaching diverse students held across the field of teacher education as a whole. The influence that program’s norms apparently had on student teacher views seemed to interact with other forces such as program size and history, recruitment strategies, self-selection mechanisms, and the learning opportunities in these particular programs.

Further factors that may account for the seemingly weak influence of teacher education concerning the teaching of diverse learners may be the views faculty and student teachers hold regarding sources of school success and failure when teaching diverse students. Teachers may not value alternative strategies that may be suggested by their teacher education programs to teach and manage student diversity because they
may believe that students’ success or failure is out of their control—a view that may be also shared by faculty—and that school success or failure resides within the pupils themselves as the attribution literature suggests (see Lalljee, 1988). We turn to that question in the following section.

Sources of School Success and Failure When Teaching Diverse Students

We looked at sources of school success and failure as mostly determined at the classroom level and attributable to two major actors, the student and the teacher. When exploring our respondents’ conceptions about school success we asked, “When students are successful in achieving intended goals or objectives, that success is often attributed to one of the following sources. Which do you believe is the most frequent source of success?” Similarly, when exploring respondents’ conceptions about school failure we asked, “When students fail to achieve intended goals or objectives, that failure is often attributed to one of the following sources. Which do you believe is the most frequent source of failure?” Possible answers for both questions reflect the two prevalent views about the role that schools can play in children’s actual and future success. One view asserts that what students bring with them, their background and their individual characteristics, is the most important factor influencing their level of achievement. Another view—although recognizing the important role of pupils’ background—asserts that schools can make an important difference in pupils’ present and future level of success. The responses to these questions are shown in Table 4.

Faculty and Student Teachers’ Views Regarding Sources of School Success and Failure

The responses from the faculty as a whole placed a stronger emphasis in the role played by teachers than in the role played by pupils regarding school success. Specifically, faculty across programs believed that the main source of success is the teacher’s use of effective methods of teaching, followed by the teacher’s attention to the unique interests and abilities of students and by the students’ enthusiasm or perseverance, in that order. These views are congruent with faculty views on teaching diverse students outlined in the previous section where they believed teachers can tailor their instruction to the unique interests and abilities of their students. In contrast with faculty views, entrants to teacher education programs believed that pupil enthusiasm is the major source of student success at school. All the other characteristics of the pupils or teachers are seen as less important. At the exit level, graduates of teacher education programs became more definite in their views about the importance of pupils’ enthusiasm for school success. No significant changes were observed across programs regarding the role of the teacher on pupils’ success.

When we look at particular institutions, we find two distinctive patterns. About two-thirds of faculty (mostly in In-service Constructivist 2, Induction Constructivist, and, to a lesser degree, In-service Constructivist 1, but also Alternate Route Conventional) stressed teacher attention to the unique interests and abilities of students as a primary source of student success, while most faculty in Preservice Conventional 3, Preservice Conventional 5, Preservice Conventional 1, but also Preservice Constructivist 2 stressed the importance of teachers’ use of effective methods of teaching on pupils’ success. This pattern is also reflected among entrants. In two programs (In-service-Constructivist 2 and Induction Constructivist), about a third of entrants believed in the importance of teachers’ attention to individual characteristics of pupils, but close to half of entrants in four out of the five conventional-oriented programs (but also Preservice Constructivist 2) believed that pupils’ enthusiasm is the most important source of success. In summary, these patterns of responses suggest the existence—among incoming student teachers—of a lay cultural norm concerning common explanations of sources of school success, namely that enthusiastic students can be quite successful at school and, in contrast with the teacher educators’ views above, regardless of teachers’ actions! Graduates in programs following constructivist-oriented approaches show patterns of change indicating a generalized tendency to attribute success to teachers’ actions as well as to pupil enthusiasm, while in the more conventional-oriented programs, graduates increasingly placed more responsibility on teachers’ actions and less on pupil enthusiasm. This shift was significant among graduates in Preservice Conventional 4.
## TABLE 4
Percent of Teacher Education Faculty, Entrants, and Graduates Who Subscribe to Different Views on Sources of School Success* and School Failure**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Respondents</th>
<th>Sources of school success</th>
<th>%</th>
<th>Sources of school failure</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>School success depends on students’</td>
<td></td>
<td>School failure depends on students’</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enthusiasm or perseverance</td>
<td></td>
<td>Indifference or lack of perseverance</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td></td>
<td>Home background</td>
<td>Intellectual ability</td>
<td>5 6 16</td>
<td>Proportion of faculty who see student characteristics as important sources of school success</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attention to interests and abilities</td>
<td></td>
<td>Use of effective teaching methods</td>
<td>29 40 4</td>
</tr>
<tr>
<td>Entrants</td>
<td></td>
<td>14 7 42</td>
<td>Proportion of entrants who see student characteristics as important sources of school success</td>
<td>63%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 15 10</td>
<td>Proportion of entrants who see teacher characteristics as important sources of school success</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>Graduates</td>
<td></td>
<td>12 4 44</td>
<td>Proportion of graduates who see student characteristics as important sources of school success</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 18 7</td>
<td>Proportion of graduates who see teacher characteristics as important sources of school success</td>
<td>40%</td>
<td></td>
</tr>
</tbody>
</table>

|            |             | School success depends on teachers’ | | |
|            |             | Enthusiasm or perseverance | | |
| Faculty    |             | 29 40 4 | Proportion of faculty who see teacher characteristics as important sources of school success | 73% |
| Entrants   |             | 12 15 10 | Proportion of entrants who see teacher characteristics as important sources of school success | 37% |
| Graduates  |             | 15 18 7 | Proportion of graduates who see teacher characteristics as important sources of school success | 40% |

* $F(df5, 5) = .91$, $p$ nonsignificant.

** $F(df5, 5) = .96$, $p$ nonsignificant.

*The percents in the table have been rounded up.

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Tatto
Likely sources of failure, according to faculty, were teachers’ failure to use effective teaching methods, teacher disregard for the individual needs of pupils, and pupil indifference or lack of perseverance, in that order. Two patterns are also noticeable in this area. A large number of faculty (60% or higher) in constructivist-oriented programs seem to believe that teachers’ lack of attention to individual student needs is to blame (In-service Constructivist 2 and Induction Constructivist, but also faculty in Alternate Route Conventional). Another group—comprising mostly faculty from the conventional-oriented programs—seems to subscribe to the idea that teachers’ poor use of effective teaching methods is the major source of school failure (Preservice Conventional 5, Preservice Conventional 3, Preservice Conventional 1, but also faculty in In-service Constructivist 1 and Preservice Constructivist 2). Overall, entrants to teacher education believe that school failure is due to students’ indifference or lack of perseverance and in a lesser degree to poor teaching. The tendencies across programs seen at the entry level tended to prevail among graduates. No significant changes were observed concerning the role initially attributed to pupils and teachers in school failure.

Looking at individual programs, two patterns are noticeable. One group of entrants—mostly in constructivist-oriented programs—see teachers’ disregard for pupil abilities as the major source of student failure (this includes about half of entrants in In-service Constructivist 2 and a third in Induction Constructivist), while entrants—mostly in conventional-oriented programs—see pupils’ indifference and other sources of pupil characteristics—such as ability or home background—as important in explaining failure (this includes more than half of entrants in Preservice Conventional 3, Preservice Conventional 1, and Alternate Route Conventional). At the exit level, we observed important shifts in the response distribution patterns associated with particular program norms. In the constructivist-oriented programs, graduates emphasized pupils’ indifference, teachers’ disregard for pupil abilities, teachers’ failure to use effective teaching methods, and teachers’ lack of perseverance as explanations for failure, but de-emphasized the importance of pupils’ background or ability characteristics. Conventional-oriented programs’ patterns show that graduates tend to place more of the blame for pupils’ failure on pupil indifference and on teachers’ poor use of teaching methods.

In summary, the observed pattern of responses suggests that faculty across teacher education programs do hold professional norms regarding the role of teachers in school success and failure, but it also suggests the prevalence of student teachers’ lay culture norms regarding views on pupils’ sources of school success and failure. In general, the views student teachers bring with them to their teacher education programs seem quite resistant to change (see Table 4). Changes in views are better appreciated at the program level where program norms seem to influence the shifting patterns of views observed among graduates.

Implications
Coherence Around Program and Professional Norms

Our findings indicate that the programs that followed a constructivist approach to teaching and learning seemed to be internally coherent around developed program norms—where philosophy, goals, opportunities to learn, and immediacy to the school classroom with careful follow-up were all focused toward understanding and capitalizing on student diversity and meaning making—and seemed to be able to graduate individuals who show beliefs that are congruent with a constructivist approach to teaching as well. Our findings across the field of teacher education seem to indicate that in those few cases where faculty espoused more coherent views around professional norms, student teachers tended to show more definite movement toward developing views that were in turn congruent with those espoused by the faculty. Thus coherence around program norms and professional norms seem to play an important role on the influence of teacher education on student teachers’ beliefs about teaching diverse students. This finding, however, would hardly surprise teacher educators since the issue of program coherence and teacher education effects has been in the minds of a number of educators who both advocate or reject the idea.

In this paper, however, we argue that coherence around norms as a source of program influence deserves careful reconsideration. Coher-
ence per se among faculty, within programs, or across teacher education cannot be seen as the only easy solution to a very complex problem (Buchmann & Floden, 1990). It is questionable, for example, that a higher level of coherence in preservice programs alone will bring about a greater degree of change on student teacher beliefs if these programs lack the other attributes that distinguish the in-service and induction programs discussed above, such as a guiding vision regarding issues of educational and social equality, extensive mentoring, and meaningful connection with school classrooms.

Coherence around socially constructed norms. Thus, an inherent difficulty of teacher education seems to reside in how and in what situations to promote coherence around norms. Teachers should and need to be able to teach different perspectives on given subjects and construct meanings with pupils, but a coherent or unified view as to assessment, expectations, knowledge of the subject matter—to name only a few—can and should be developed to improve the quality of teaching and learning. Coherence in the opportunities to learn that teacher education may provide to student teachers does not imply for all faculty within or across programs to “think alike,” as diversity of thought brings about richness of learning experiences. Rather, coherence in terms of shared understandings among faculty and in the manner in which opportunities to learn have been arranged (organizationally, logistically) to achieve a common goal—that of educating professional teachers with the knowledge, skills, and dispositions necessary to more effectively teach diverse students—seems to define the type of coherence we observed in the programs that showed more influence. In short, if we think about program and professional norms as socially constructed through dialogue and relevant to context, the sole idea of requiring coherence around these norms would be, of necessity, tautological.

A beginning point for specific programs in developing shared understandings in the preparation of teachers of diverse learners may be for faculty and other program participants to study systematically the characteristics of the previously discussed teacher education programs’ contexts and learning opportunities to comprehend what might be successful in facilitating teacher change vis-a-vis their own programs. But the development of program norms in a manner congruent with the current reform efforts is not an easy task. At minimum it requires, as per our examples, the development of smaller programs whose faculty share a particular theoretical view of learning to teach congruent with current reform trends emphasizing teaching for understanding and pupils as makers of meaning, purposeful recruitment strategies, and teaching methods congruent with programs’ aims. It also requires the development of opportunities within the programs—dialogue, workshops, on-site support, examples of practice, opportunities to learn how to implement a new kind of teaching, intensive follow-up and mentoring of novice teachers—for student teachers and teacher educators to reflect and challenge traditional conceptions of the teacher role, the learner role, subject matter and pedagogy, and for learning to teach to occur in context. Serious consideration to issues of coherence around socially constructed norms within and across teacher education programs and their effect on teachers’ preparation in the context of the current educational reform will, by definition, change the manner in which we conceive of teacher education for teachers of diverse learners and will, as a consequence, reshape the professional roles of teachers.

Notes

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1For mathematics examples, see Peterson, Fennema, Carpenter, and Loef, 1989; Porter, Floden, Freeman, Schmidt, and Schwille, 1988; and Thompson, 1984. For science examples, see Brickhouse, 1990; Martens, 1992; and Neale, Smith, and Johnson, 1990. For a literature example, see Gudmundsdottir,
1990. For examples of which children get called on, what they are asked, and how they are in turn responded to, see Good, 1987, and Tobin and Fraser, 1989. For examples of how new policies, curricula, and instructional programs are revised and redefined, see Applebee, Langer, and Mullis, 1990; Cohen, 1990; Englert, Raphael, and Anderson, 1992; and Martens, 1992.

Our study is evaluative in nature, and our findings have important implications for policy. Moreover, the study takes an original approach to evaluating teacher education influence and contributes to the research literature on teacher education.

Although we do not directly use interview and observation data for our analysis, we use National Center for Research on Teacher Learning (NCRTL) research based on this data to “triangulate” our findings and to increase the trustworthiness of our study. The NCRTL was formerly known as the National Center for Research on Teacher Education (NCRTE) and was founded at Michigan State University in 1985 with a grant from the Office of Educational Research and Improvement, U.S. Department of Education. The Center was renamed in 1991.

To protect the anonymity of the programs, we refer to them as preservice, in-service, induction, or alternate route and use numbers to differentiate among them.

Because of the reduction of the population at the second application of the questionnaire, a sensitivity analysis comparing the means, standard deviations, and standard errors among “stayers” with “leavers” showed that no significant differences were found in 12 of the 14 variables analyzed (including background characteristics). These findings make plausible the assumption that the two groups share similar characteristics. Nevertheless, the evidence collected from programs with small sample sizes needs to be interpreted with caution.

Consensus across the field of teacher education, or the presence of professional norms across programs, is indicated by a nonsignificant $F$ and a low standard deviation of less than 2. Lack of consensus is due to across-program variability and is indicated by a significant $F$ statistic. Scheffé pairwise mean comparisons were used to indicate differences among programs or the existence of program norms.

The $F$ statistic tests indicated, for faculty, the existence of professional norms (with a nonsignificant $F$ and a low standard deviation) or program norms (with a significant $F$). For student teachers (entry level), the $F$ statistic tests indicated the existence of recruitment influences (with a significant $F$) or lay culture norms (with a nonsignificant $F$ and a low standard deviation). Similarly, the $F$ statistic tests indicated, for graduates (exit level), program influence across programs (with a nonsignificant $F$ and a low standard deviation) or program influence within programs (with a significant $F$).

The classification of programs into constructivist and conventional categories is useful for analytical purposes. This classification, however, does not account for individual faculty who may behave differently within a given program and may have important—and independent—influences on student teachers’ views as they move through their program.

Because the NCRTE research focused its inquiry on the teaching and learning of mathematics and writing, the observations in this paper regarding subject matter courses apply only to these two subjects.

In spite of its rhetoric and its faculty’s liberal views, this program provides students with no professional teacher education, so whether the teachers are able to make connections on their own between what they learn in the program and their “expected” role is an empirical question.

This question tries to get more at the ideas teachers have about how to address the needs of educationally disadvantaged students very much in line with the definition provided by Natirello, McDill, and Pallas, (1990). In this question, the particular interest focuses on ability because “differences among children attributed to ability [as opposed to background characteristics] are generally considered [by teachers] a valid basis for making instructional decisions [such as grouping]” NCRTE Final Report (National Center for Research on Teacher Learning, 1991, p. 47). This question does not in any way attempt to equate “slow learner” with “culturally diverse learner;” rather our definition of “diverse” should be understood as encompassing several dimensions along which pupils can vary such as ability, race, gender, socioeconomic status, and so on.

Ambivalence is represented by a mean of, or close to, 4 which is located in the midpoint of the continuum in our Likert scale, where 1 equals strong agreement and 7 indicates strong disagreement. Similarly, a standard deviation of 2 or larger confirms lack of consensus.

Research on these particular programs based on observations and interviews does suggest that changes in beliefs go hand in hand with changes in teacher actions. This is specially true of programs with constructivist tendencies, also characterized by having strong program norms, where research confirms that teacher education through these programs does make a difference in altering teachers’ beliefs and these changes in beliefs are congruent with changes in practices (see, for example, Mosenthal & Ball, 1992; Feiman-Nemser & Parker, 1993; McCarthey, 1992; National Center for Research on Teacher Learning, 1991; and Wilcox, Schram, Lappan, & Lanier, 1991).
The discrete character of this data and the need to compare two different groups (faculty and student teachers or faculty and graduates) did not allow for the use of HLM or cross tabulations. To see how much faculty and student teachers agree or disagree at both the entry and exit level in their programs, we compared the pattern of their responses—as given by valid percents in their respective frequencies output—and computed the differences of these responses in each category. (As shown in Table 4, we had six categories each for sources of success and failure—three related to student sources and three to teacher sources.) We then computed the variance of the differences where variance is defined as the amount of dissimilarity between the two groups (faculty and student teachers or faculty and graduates) at the entry and exit levels. A larger variance at the exit level than at the entry level indicates lack of similarity among the groups being compared. The statistical test of this change is given by the ratio of the two variance estimates within an F distribution. In the case of sources of success, a non-significant $F (df 5, 5) = .91$ shows that student teachers’ views did not move toward the views espoused by their faculty after finishing their teacher education program. For particular analysis of student teacher movement within programs, the same procedure was followed. The alpha level for a significant $F$ was set at a minimum of $p \leq .10$.

An illustration of this is the agreement with teacher-directed instruction for low-income children among a large number of faculty and student teachers in the conventional approaches, which stands in sharp contrast with the generalized disagreement observed among individuals in the constructivist-oriented approaches.

A professional norm is defined in this case by at least 60% of the respondents favoring either teacher or student factors as sources of school success or failure.

As we mentioned earlier, factors such as program size and/or program history may also contribute to programs’ internal coherence (that is, smaller programs and programs that were created for specific purposes and are bounded by a common philosophy are more likely to be coherent). This may be especially true in the case of conventionally arranged preservice programs where student teachers seem to have their own experience—as pupils themselves—as the principal point of reference against which to judge what teacher education programs advocate. For instance, on average, student teachers agreed with the statement “a lot of my ideas about teaching and learning come from my own experience as a student,” with an overall mean of 2.3 ($SD = 1.3$) at the entry level versus 2.9 ($SD = 1.6$) at the exit level. Significant differences were found at both the entry ($F = 10.96, p < .0001$) and exit ($F = 4.67, p < .0001$) levels between In-service Constructivist 1, In-service Constructivist 2, and Induction Constructivist—where student teachers tended to express ambivalence—and the student teachers in the other programs who tended to be in strong agreement with the statement. Teacher education faculty across programs showed ambivalence in this regard ($F = 2.55, p < .05$), with an overall mean of 4 ($SD = 1.7$).

See Ball and Wilcox, 1989; Feiman-Nemser and Parker, 1993; and Mosenthal and Ball, 1992.

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