Do Differing Types of Field Experiences Make a Difference in Teacher Candidates' Perceived Level of Competence?

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A ubiquitous national call for the reform of teacher education is of principle importance to university and college-based teacher educators. For decades, individuals such as Dewey (1965) and Barth (2001), and professional groups such as the Carnegie Forum on Education (1986) and The Holmes Group (1986) have advocated for the essential role of field experiences in the preparation of teachers. Generally speaking, field experiences are defined as a variety of early and systematic P-12 classroom-based opportunities in which teacher candidates (TCs) may observe, assist, tutor, instruct, and/or conduct research. While field experiences generally occur in schools they may also take place in other settings such as community based agencies (National Council for Accreditation of Teacher Education, 2002). Field experiences and "practice teaching" have been recognized traditions of teacher-training programs dating back to the times

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of the American Normal School, one should not assume that all field experiences will actually help bridge the theory-practice gap and that merely requiring more field experience is necessarily better (Allsopp, DeMarie, Alvarez-McHatton, & Doone, 2006; Korthagen, Loughran, & Russell, 2006; Zeichner, 1980). With this important point in mind, our study was designed to determine the effect of differentiated field experiences upon the perceived level of competence of TCs completing three different types of field-based experiences within the same teacher preparation program. These differing placements and experiences represent the continuum from basic coordination between cooperating teachers in partner schools and university professors (Control) to in-depth communication, coordination, and collaboration between and among all stakeholders in a Professional Development School (PDS) to the same in depth collaborations and experiences plus a required action research component built into the PDS setting (Inquiry) all situated within the same lower SES, rural/suburban environment.

The existing research base regarding field experience appears to be somewhat equivocal as the learning that occurs during field experiences is highly contextualized and uneven (Ritter, Powell, & Hawley, 2007; Téllez, 2008), and empirical data on the effects of differing types of field experiences has been characterized as sparse and inconclusive (Bischoff, Farris, & Henninger, 1988; Henry, 1983; Shanahan, 2008; Wilson, Floden, & Ferrini-Mundy, 2002). Bridging the gap between theory and practice does not automatically occur simply as a result of participating in field experiences (Barksdale-Ladd & Rose, 1997). Sometimes incongruence between theory and practice may become more evident as a result of field experiences reflecting the "two-worlds pitfall" (Feiman-Nemser & Buchmann, 1985) which provide an exposure to procedures and instructional practices such as transmissive teaching that may conflict with more learner-centered instruction promoted in university-based coursework causing novice teachers to gravitate toward the practices and values of the P-12 classroom while dismissing those espoused in university courses as being too theoretical. Along these lines, several studies have reported the apparent regression of novice teachers as they become more rigid, bureaucratic, and custodial; conforming to existing school practices, procedural concerns, and routine tasks (Beyer, 1984; Grisham, 2000; Grossman, 2005; McBee, 1998; Moore, 2003; Silvernail & Costello, 1983; Zeichner & Tabachnick, 1981; Zeichner & Teitelbaum, 1982). Gless and Barron (1992) argued that new teachers typically transition through five distinct phases during their first year of teaching. The transition to teaching begins with the anticipation phase where the new teacher often romanticizes the new role. Then the new teacher immediately enters the survival and disillusionment phase where they realize they have a great deal to learn about school and district procedures, their peers, and communicating with parents. Then after several months they progress through other phases that include rejuvenation, reflection, and the anticipation of the next year.

Conditions Supporting Effective Field Experiences

Allsopp et al. (2006) reported that field based assignments and activities should be aligned with the theoretical and evidence-based teaching procedures taught in methods courses to foster meaningful field-based teaching experiences. These researchers offered six suggestions to teacher preparation educators to enhance the probability of linking theory and practice: (a) changes in class schedules, (b) more supervisor teacher involvement, (c) enhanced orientations, (d) restructured observations by university professors, (e) course assignments related to field experiences, and (f) collection of data to possibly link the partnership to increased student achievement.

Field experiences should function as a critical bridge between theoretical aspects of formal teacher training and the practical aspects of teaching (Dodds, 1989). In an effort to increase the probability that field experiences will have these desired effects, there are certain factors or conditions that should be considered when they are designed. These clinical experiences may be based on school-university partnerships that include conditions such as: (a) explicit purposes that are clearly explained to TCs, and mutually supported and understood by field-based practitioners and campus-based instructors; (b) periodic evaluation that ensures that the purposes are being accomplished; (c) field-based learning is developmentally sequenced and integrated over the entire teacher education curriculum to avoid redundancy or creating conditions for assumptive teaching; (d) provisions exist for altering the quantity and duration of the field experience to fit individual differences among groups of novice teachers; and (e) cadres of exemplary models of field based teacher educators (mentor teachers) are identified and cultivated (Cruickshank & Armaline, 1986; Erdman, 1983; Goodman, 1985; Grisham, Berg, Jacobs, & Mathison, 2002). In addition, these educational partnerships should provide the contexts for rethinking and reinventing schools for the purposes of: (a) developing and sustaining dynamic sites for best educational practices that positively impact student learning; (b) contributing to the preservice preparation and induction of individuals into the teaching profession; and (c) providing opportunities for the continuous professional development of practicing teachers (Lieberman & Miller, 1990). In essence, these various factors and conditions are requisite for the establishment and sustenance of Professional Development Schools that have been espoused by such groups as the Center for Educational Renewal (Goodlad, 1990), the Holmes Group (1990) and more recent researchers such as Clark (1999) and Norlander-Case, Timothy, and Charles (1999).

Interstate New Teacher Assessment
and Support Consortium (INTASC) Standards

"What teachers know and can do makes the most difference in what children learn" (Darling-Hammond, 1998, p. 12). An effective teacher must be able to integrate content knowledge with the specific strengths and needs of students to assure that all students effectively obtain and strategically apply the knowledge and skills to

learn and perform at high levels. In an effort to organize and "codify" some of the essential knowledge, skills, and dispositions of well-prepared novice teachers the Council of Chief School Officers articulated and disseminated a set of ten model standards commonly referred to as the INTASC standards (see Appendix A) to serve as a guide for the preparation and assessment of well-prepared beginning teachers. These standards reflect the requisite knowledge, skills, and dispositions necessary for teachers starting their careers (Collins, 2006; Kraft, 2001) and they provide an overall framework for documenting the accomplishments of novices across the domains of teaching and are useful for communicating expectations for new teachers' performances, structuring induction experiences, and evaluating growth in professional knowledge (Alban, Proffitt, & SySantos, 1998). Some teacher preparation programs require TCs to develop portfolios demonstrating beginning teacher competencies based on the INTASC standards (Capraro, 2006a; Smith et al., 2000; Zidon & Greves, 2002) but, little other research can be found on how effective these standards are in measuring the performance of TCs, or how the standards might be useful in establishing a formative assessment process for preservice or novice teachers during their induction into teaching. It is important to note that there are more high stakes requirements now and even more regulations governing teacher preparation (Pullin, 2004).

Diversity of Field-Based Experiences

University and college based teacher preparation programs employ a wide range of field experiences for their TCs. These experiences take many forms including observing in P-12 classrooms, tutoring individual and groups of young people, working with children in before- or after-school programs, providing assistance to small groups, and teaching lessons to large groups (Capraro, Capraro, Parker, Kulm, & Raulerson, 2005). As students progress through their teacher preparation programs, they typically become progressively more involved in working intensively and directly with P-12 grade students (Capraro et al.), however, at times mundane tasks; such as grading, lunch duty, materials management, and bulletin board development, may overshadow the intended effects of the theory into practice model (Moore, 2003).

Very recent research examining the impact of differing field-based experiences has been characterized as sparse at best (Shanahan, 2008), yet the presumption or myth persists that all field experiences result in positive consequences for TCs (Zeichner, 1980). While the field experience research base is not extensive, teacher preparation programs must recognize that more systematically structured, intensive field experiences involving reflection and inquiry that link theories with personal learning experiences are necessary. Therefore, novice teachers must move beyond an intuitive understanding of their own learning and ultimately facilitate a more theoretically grounded understanding of their current students' learning (Agee, 1997). TCs' pre-existing behaviors, misperceptions, and beliefs about teaching are not easily changed (Clift & Brady, 2005); there are some potentially promising

practices, including inquiry, that have the potential to inform future research and practice (Wilson et al., 2002).

When TCs address their misperceptions, this may help them to improve their classroom practices (Neapolitan & Harper, 2001). As TCs implement inquiry they confront their own personal beliefs exposing conceptions and misperceptions that are not well aligned to evidence based or theoretically grounded classroom practices (Fetters, Czerniak, Fish, & Shawberry, 2002). Additional benefits of systematic, intentional inquiry by TCs include the clarification of their own personal teaching theories, along with an increased understanding of the role of inquiry, reflection and change as an important element of the roles of teacher (Rock & Levin, 2002). Therefore inquiry may be a promising practice for teacher education programs that focus on making theory-to-practice connections with a purpose of confronting TCs' experientially based, intuitively constructed professional beliefs and practices. Additional research is necessary to study which differing types of field-based experiences are most effective in this process. The current study examines field-based experiences within three settings including a more traditional school-based (Control) model, a professional development school (PDS) model, and an inquiry focused, PDS based (Inquiry) model.

Benefits of Professional Development Schools

Of all the reform efforts presently in place in teacher education, professional development schools (PDS), initially advocated by the Holmes Group (1990), show great promise because they seek to tie changes in teacher education to simultaneously renewing schools themselves (Bullough, Kauchak, Crow, Hobbs, & Stokes, 1997; Grisham, Laguardia, & Brink, 2000; Holmes Group, 1986, 1990). Since their inception, PDSs have been described in the professional literature and they continue to receive widespread support regarding their importance and general effectiveness in the preparation of teachers (Abdal-Haqq, 1998; Darling-Hammond, 2005, 2006) despite the lack of substantial empirical evidence linking PDS prepared teachers to enhanced teaching that leads to increased student achievement. Perhaps, widespread empirical evidence supporting early PDS effects is limited due to the diverse and somewhat unique or idiosyncratic nature of the numerous PDSs in existence and the focus was placed on inputs or the development of PDS properties with less impetus placed on PDS outcomes. However, there is some recent evidence supporting PDS teacher preparation. Grisham, Berg, and Jacobs (2002), for example, reported on the positive, long lasting effects of the PDS preparation model while Ridley, Hurwitz, Hackett, and Miller (2005) found PDS prepared teachers were more reflective, better able to plan lessons and better prepared for the realities of teaching than non-PDS prepared teachers. In addition, some studies have reported that PDS prepared teachers remain in the profession at higher rates than teachers who did not experience a PDS training

opportunity (Fleener, 1999; Kenreich, Harzler-Miller, Neopolitan, & Wiltz, 2004; Latham & Vogt, 2007).

The PDS model unites the functions of schools and universities in the areas of "professional development of [teacher] candidates, faculty development, inquiry directed enhanced student learning" NCATE (2001, p.1). Professional development school partnerships frequently emphasize the importance of professional learning communities, inquiry, shared decision-making and a focus on student learning within communities of learners including the university method's professor, the classroom mentor teacher, and TCs. The experiences of TCs, mentor teachers, and university professors scaffold the theoretical learning when schools and universities form collaborative partnerships based on mutual respect and shared professional beliefs and understandings, and shared governance and support of the goals and procedures that guide the PDS actions. When these PDS partnerships function well the result helps TCs, mentor teachers, and teacher educators examine TCs' expectations through engaging in reflective, collegial conversations (Darling-Hammond, 2005; Norman, Golian, & Hooker, 2006). However, it should be noted that additional responsibilities and activities might add stress to TCs in PDS schools (Hopkins, Hoffman, & Moss, 1997). Despite these accomplishments, the Holmes Group has concluded that many partnerships have not yet attained the benefits innate in these collaborative efforts (Allsopp et al., 2006).

The Promise of Inquiry in Teacher Preparation

While inquiry-based teaching and learning are often associated with either science or mathematics, it is just as appropriate to use inquiry procedures in all disciplines and learning endeavors including teacher education. In fact, one way other disciplines enact inquiry is through teacher study groups. One goal of an inquiry approach is to model a collection of student-centered learning approaches, such as having students' experience inquiry learning. This approach generally incorporates specific inquiry-based learning procedures whereby the TCs participate in the planning and implementation of an inquiry project, thus gaining first-hand learning experiences to support an understanding of the potential impact of inquiry learning procedures (Beisser, 2000; Grisham, 1999). Preservice teacher preparation should include properly conceived inquiry experiences as an integral component of courses as well as a core aspect of education methods (Edwards, 1997; Smith, 2005). Given this belief, it is unrealistic to think TCs would be able to use inquiry practices with their students if they themselves had not actively engaged in inquiry during their teacher preparation program or were not able to work cooperatively with their mentor teachers in developing inquiry projects. Therefore, it is important to model and involve TCs in inquiry-based experiences whenever possible thus promoting flexibility integrating inquiry practices as a pedagogical strategy in their future classrooms (Hohloch, Grove, & Bretz, 2007; Supovitz, Mayer, & Kahle, 2000).

Research on inquiry in the preparation of teachers, however, is limited. One aspect

of inquiry is to foster problem-solving skills and questioning habits (Lee, 2002). An important aspect of applying inquiry in classrooms is that TCs are actively engaged in collecting evidence about the teaching and learning process for an extended period of time. The TCs learn to collect a wide range of data about a student in their field-based class and then design lessons with appropriate strategies aligned to individual student needs (Kasten & Write, 1996; Lenski, Grisham, & Wold, 2006). This more intensive involvement with the inquiry process encourages reflection about their teaching and learning, integrates the theoretical and applied components of their teacher preparation program (Fetters et al., 2002; Rock & Levin, 2002), and fosters an evidence-based mindset as a basis for classroom teaching and learning.

Research Purpose

As mentioned previously, little research has been conducted to directly compare the effectiveness of different models of field-based learning experiences and little has been reported on the use of the INTASC standards in establishing a formative assessment for TCs. The current study used the INTASC standards as a benchmark, to measure TCs' self-perceptions of their preparation and competence to teach. This study examined the perceived level of competence of TCs completing three different field-based experiences within the same teacher preparation program at a research-intensive university. More specifically, this study attempted to answer the following questions: (1) Do different field-based experiences affect TCs' self percep-tion of their professional competence as defined by selected INTASC standards? (2) Do TCs completing different field experiences rate themselves differently on knowledge, disposition, and performance as measured by latent variables?

Methods

Participants

The participants (*N*=135) were senior level elementary education majors enrolled at a research-intensive, land-grant university with almost 4000 students in the college of education located in the southwest region of the United States. All students in this teacher preparation program must maintain a 2.75 grade point average. The undergraduate teacher preparation program is intensively field-based whereby teacher education students are placed in classrooms in local school districts to work with school-aged learners, teachers, and parents as early as their fresh-man year. The participant sample was composed of three equal groups of 45 TCs who were randomly selected from each of three much larger groups of students enrolled in the sections of their senior methods block of courses associated with one of three different field-based approaches or models. These individuals were mainly female traditional university students who ranged in age from 20-22 years old. The racial distribution was 93% Caucasian (*n*=125), 5% Hispanic (*n*=7) and 2% African-American (*n*=3). This distribution is representative of the population of

TCs at this institution: 90% female, 5% African-American, 2% Hispanic, and 92% White. The sample is similar by gender to other elementary teacher preparation programs. This sample was placed in two rural/suburban districts where the student demographics of one of the two districts where the largest numbers of TCs were placed was nearly one-third each of African-American, Hispanic, and White.

Setting

The study was initiated during the semester immediately preceding student teaching. During this semester all students completed the same block of language arts, social studies, mathematics, and science methods coursework in addition to a course pertaining to classroom management. These courses were all taught or co-taught by university professors at selected public school sites during or after the regular student school day to enable the TCs to participate fully in daily school activities. All school placements were within a 30-minute driving distance from the university in two school districts. One district enrolled 7000 students (61% White, 15% Hispanic, & 14% African American) while the other district enrolled slightly over 12,000 (31% White, 42% Hispanic, & 27% African American). Placements were made randomly throughout both districts. University supervisors visited all classrooms at least once a week regardless of the field placement type. TCs within each field-based approach enrolled in the sections of the courses aligned with one of three field-based approaches under investigation by the faculty formed a cohort group. They attended all classes together and spent equal amounts of time in the schools, based upon the type of field-based program - traditional school partnerships (Control), Professional Development Schools (PDS), inquiry-based PDS (Inquiry) in which they were enrolled. As a research university it was important to examine the effects of each field experience model before adopting a single clinical model for teacher preparation. TCs were then randomly assigned to elementary (K-4) classrooms with a respective mentor within the schools affiliated with each of the field-based approaches in either of the two districts. Each school-site classroom teacher mentor had a minimum of three years teaching experience.

Field-Based Treatments

Students across the three field-based approaches (Control, PDS, Inquiry) completed many of the same course assignments and classroom-related activities. They all received an " Integrated Methods Semester Senior Intern Handbook" describing the purposes and expectations of the Integrated Semester Coursework and clinical experiences, along with specific guidelines and rubrics for all assignments. During the semester, all students developed a weeklong integrated thematic unit, and planned and implemented a minimum of eight instructional lessons. In addition, all participants maintained a reflective journal of classroom activities and created a professional portfolio reflecting their field experiences. Further, they met with professors once per week for a seminar that addressed common topics ranging from

special education placements to understanding the school milieu, and navigating the school environment.

While all of the students completed many common assignments and experiences, there were some unique requirements associated with each of the approaches to field experiences that distinguished each of the approaches. First, the amount of time spent in each field placement was different because differing settings, expectations, and assignments were associated with Inquiry and PDS groups. However, we do anticipate simply spending more time in schools would not demonstrate any improvement over that of the Control group (Burant & Kirby, 2002). In addition to the reports cited earlier in this article we would add that learning to teach is a complex process and the success of internship experiences are very dependent upon the intricate alignment of the attitudes, beliefs, of the interns, the mentor teacher, and the university supervisor, along with the nature of the professional relationship among the three individuals (Borko & Mayfield, 1995). As reported by Graham (2006), the conditions of affective engagement with teaching and learning, cognitive involvement that includes dialogue and reflection about practice and shared responsibility for learning, mentoring, and organizational structures, policies, and procedures are among the important determinants of successful field experiences.

The instructional team members associated with each group were well versed and supportive of each specific field-based approach and the associated procedures and expectations. None of the instructional team members were part of the research and authoring team. The public school mentor teachers participated only within one of the approaches or treatments. The TCs in the Control group were involved in the field for two-full days per week totaling 28 days of elementary classroom field experiences gained during one semester. They visited four additional classrooms and interviewed various school personnel. They were not provided with instruction about inquiry-based learning, and they completed their fieldwork in a partner school that was committed to cooperatively preparing TCs.

TCs in the PDS treatment group participated in the field for four full days per week and completed 56 full days of field experiences in a PDS during the semester. More important than the additional time spent in the classroom, TCs in the PDS setting traded " . . . breadth (different types of schools, students, etc) for depth (knowing one school extremely well)" (Grisham, Bergeron, Brink, Farnan, Lenski, & Meyerson, 1999, p. 187). In the PDS learning communities, TCs participated in additional activities such as attending faculty meetings with their mentor teachers, meeting in professional teams with their university supervisors and mentor teachers, and developing instructional intervention plans for individualized instruction in collegial groups. The TCs in the PDS groups participated in seminars that specifically addressed the importance of collaboration and teamwork as a member of a professional learning community among other tenets of a PDS relationship. The PDS experiences also included methods courses taught in the public school. These courses were also frequently co-taught by university faculty and mentor teachers

during or immediately after the school day. This afforded the university professors the opportunity to observe TCs with mentor teachers and children during their daily activities. Conversely, the mentor teachers in the school could become more directly involved in the university courses and this involvement could serve as a form of on-going professional development for both teachers and professors. This facilitated the alignment of methods course instruction with best classroom practices (and visa versa) consistent with the PDSs' characteristics suggested by others (Allsopp et al., 2006; Barksdale-Ladd & Rose, 1997; Grisham et al., 1999).

TCs in the Inquiry treatment group completed the same 56 full days of elementary field experiences during the semester as the PDS group while additionally planning and initiating an action research inquiry project. Part of their seminar time was spent discussing inquiry strategies and procedures. In some instances, their inquiry project required them to be in the field five days a week, and thus some individuals may have completed up to 14 additional days of field-based experiences. Beyond the semester of the current investigation, members of the Inquiry group were also committed to completing their student teaching in the same classroom in which they completed their senior methods field experiences, they were to complete a year-long inquiry research study in the same classroom with support and assistance from their professors and classroom mentors.

Instrumentation

The INTASC Readiness Survey (IRS) is a Likert-type instrument that is closely aligned with the 10 INTASC standards (Foster, Schverak, & Jacobs, 2001). The survey contains 63 items measuring the ten beginning teacher standards: (1) Content Knowledge (items 1-7); (2) Developmental Appropriateness (items 8- 15); (3) Differentiated Instruction (items 16-21); (4) Varied Instructional Strategies (items 22-26); (5) Motivational Techniques and Learning Environment (items 17-32); (6) Communication and Media Use (items 33-38); (7) Planning for Instruction (items 39-42); (8) Formal and Informal Assessment (items 43-48); (9) Reflective Practice: Professional Growth (items 49-54); and (10) School and Community Relationships (items 55-63). Samples of the items are contained in Appendix B. The internal consistency reliability estimate for the data in hand was .978. The IRS was administered to the TC participants in all three groups (N=135) during the last week of the methods semester. They were asked to read each item and mark the level of preparedness which best described them. The five-point ranking was: 1 "not yet prepared"; 2 "poorly prepared"; 3 "marginally prepared"; 4 "adequately prepared"; and 5 "well prepared".

While we were very interested in knowing how our students perceived their preparedness in association with each of the INTASC standards, for this study only standards 5 (Learning Environment), 7 (Planning for Instruction), 8 (Student Assessment), and 9 (Reflective Practice) were analyzed, and reported because we believed that these four standards would be most directly influenced by the experi-

ences associated with these field-based groups. We believe that Standard 1 (Content Knowledge) is absolutely important; however, we feel there are no important differences in our TCs' content knowledge preparation because they completed core and other content courses during various times prior to their methods semester. Further, there was no way to account for the varied elective courses beyond required university core and required degree plan courses, course sections or instructors, and academic semesters or terms during which the students completed these courses because they were not grouped into cohorts until they enrolled in the senior methods semester. Information, activities, and attitudes associated with Standards 2 (Child Development), 3 (Differentiated Instruction), 4 (Instructional Strategies), and 6 (Effective Communication) were emphasized equally within the various sections of the methods courses because these instructors worked in teams and purposefully planned for these components to be included in all sections of the courses. Due to the basic nature of these standards, we expected the TCs to apply the knowledge, dispositions, and performances similarly regardless of their field-placement group. While Standard 10 (School and Community Relationships) is very important, we anticipated that our TCs' interactions with parents, colleagues, and community agencies would be readily influenced by the classroom teacher mentors, regardless of the field-placement groups. Thus, there would probably not be any observable differences among the TCs. In addition to the 10 standards, the IRS measured the TCs' knowledge (21 items), dispositions (16 items), and performances (26 items) that were embedded across the 10 standards. These latent constructs were computed from the original instrument using the mean score of the items composing each latent construct.

Data Analysis

The data were analyzed using 95% confidence intervals for each group (Control, PDS, and Inquiry) by each of the measured and latent variables. Interpretation of the representations for the confidence intervals was completed as described in Capraro (2005, 2006b) and Cumming and Finch (2005). This analytic method provides for comparison that limits inflation of TYPE I error by using multiple univariate tests (Thompson, 2002). A statistically significant difference ($p<.05$) exists between groups, in this case when there is 25% or less overlap of confidence intervals. Because all analyses are correlational and attenuated by reliability, it is important to examine the obtained reliability (Thompson, 2002, 2003). The reliability estimates (Cronbach's alpha internal consistency) are contained in Table 1 for all subsections and groups. All score reliability estimates which ranged from .79-.96 were adequate (Thompson, 2006).

Table 1
Reliability Estimates by Group for Each Measure and Latent Variable

Variable	Control	PDS	Inquiry
Standard 5	.94	.96	.93
Standard 7	.88	.94	.95
Standard 8	.82	.88	.86
Standard 9	.89	.91	.82
Knowledge	.88	.79	.85
Disposition	.91	.93	.94
Performance	.86	.88	.91

Cronbach's Alpha Coefficient

Results

Do TCs Perceive INTASC Preparedness Differently across Field Placement Groups?

Across the INTASC standards analyzed in this study, the Inquiry group had a smaller variance and consistently higher mean ratings when compared descriptively to both the Control and PDS groups. When comparing the Control and PDS groups there were no statistically significant differences between the two groups on any of the standards. Further, all statistically significant differences favored the Inquiry group over the Control or the PDS groups. More specifically, the Inquiry group participants perceived themselves to be better prepared than the PDS group on three out of four INTASC standards and better prepared than the Control group on two out of four standards analyzed. On Standard 5 (Learning Environment) there was a statistically significant difference ($p<.05$) with the Inquiry group outperforming the Control group. With regards to Standard 7 (Planning Instruction) the Inquiry group outperformed the PDS group ($p<.05$). While the means for Standard 7 were similar between the Control and PDS groups, the variance was much greater for the Control group as compared to either of the other two groups. On Standard 8 (Assessment), the Inquiry group outperformed the PDS group at the $p<.05$ level. The Inquiry group outperformed both groups on Standard 9 (Reflective Practice) at the .01 level for the Control group and the .05 level for the PDS group.

Do TCs Completing Different Field Experiences Rate Themselves Differently on Knowledge, Disposition, and Performance as Measured by Latent Variables?

An examination of the confidence intervals in Figure 2 indicates that while there were no statistically significant differences between the groups on the latent variable of Knowledge, it appears that the Inquiry group slightly outperformed the other two groups. Further, the Control group reflected greater variability than the

Figure 1
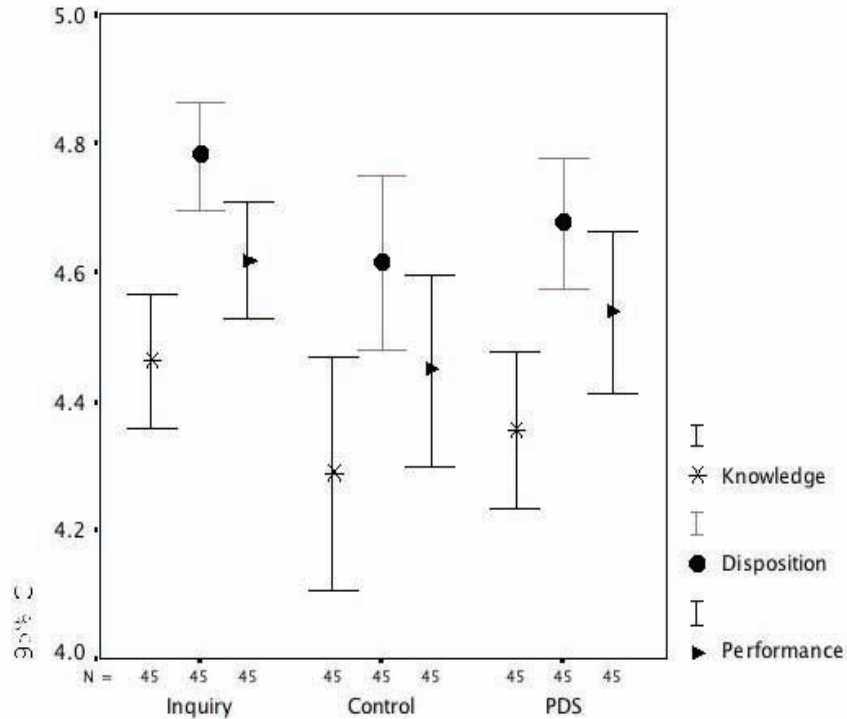Three Field-Based Groups and INTASC Standards
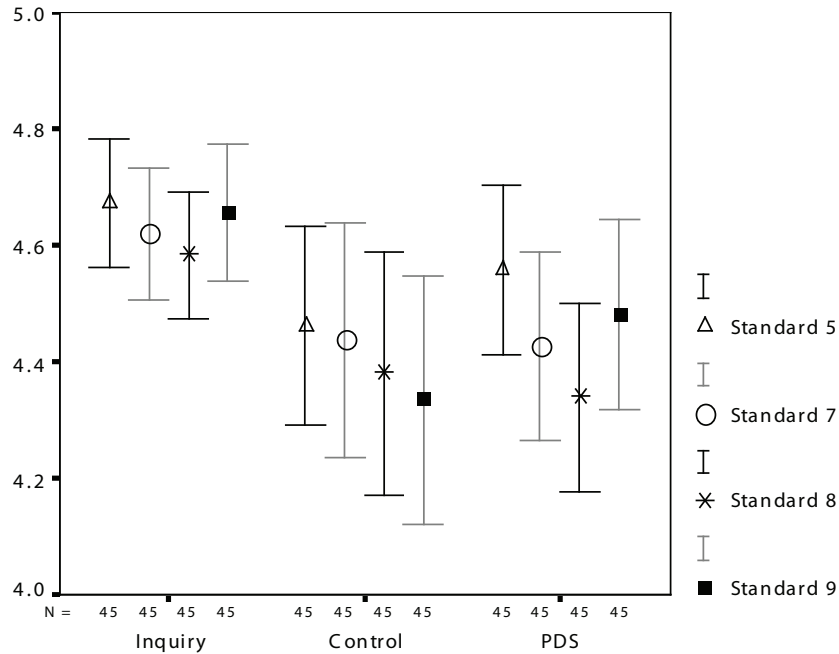
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Inquiry and PDS groups that reflected similarly less variance. On the latent variable Disposition, there was no statistically significant difference between the Control group and the PDS group, however the Inquiry group was statistically significant different ($p<.05$) than both the Control and the PDS groups. Variance was similar for the PDS and Inquiry groups; however, the Control group's scores revealed a noticeably greater range. On the latent variable Performance, the Inquiry group rankings were greater than the Control group at $p<.05$. There also was greater variance observed in the Control and PDS scores when compared to the smaller variation in the Inquiry group.

Discussion

In this study, we analyzed self-report data (Beatty, 2003, 2004) concerning the perceived teaching related competencies of three groups of TCs each associated with different field-based experiences implemented during their integrated senior methods block of courses. Using the INTASC standards as a benchmark for the

Figure 2
Knowledge, Disposition, Performance by Inquiry, Control, and PDS

assessment of novice teachers, the findings indicated the TCs' perception of acquired competence relative to the selected INTASC standards most directly influenced by field-based experiences were highly rated across the three groups with the means exceeding 4.2 on a 5-point scale. Thus, their coursework and field-based work were probably perceived to be relevant and somewhat well-connected, because field experiences and university coursework that are incongruent or disconnected are generally ineffective and disadvantage TCs' preparation (Feiman-Nemser, 2001) which would in turn cause them to rate their preparation for teaching far less favorably.

These consistently high ratings across the three groups would seem to affirm the importance of aligning field based experiences and assignments with the theoretical and evidence based teaching procedures that are incorporated into the methods courses, as each of the field experiences are based on school-university partnerships, albeit differing intensity levels of communications and collaborations among the partners. Even the Control group experiences reflected many of the conditions associated with effective field experiences such as: increased mentor teacher involvement and opportunities for continuing professional development

(Allsop et al., 2006; Lieberman & Miller, 1990), explicit purposes understood and subscribed to by all participating partners (Dodds, 1989), course assignments directly related to field experiences, among other characteristics that have been associated with effective field experiences. In each of the three groups, for example, every student and every mentor teacher along with the course instructors participated in orientation sessions to the senior methods block, and every participant received a 90 page *Integrated Methods Handbook* that included the rationale, expectations, practices and procedures relating to the integration of course assignments with the varied field experiences.

The finding of no statistically significant differences between the PDS group that spent four days per week in the field, and the Control group that spent two days per week in the field, would lead us to believe that the amount of time spent in the field might not be as primarily important as other factors in determining the positive impact of field experiences upon the perceived competence of novice teachers (Burant & Kirby, 2002). Stated differently, it might not be the amount of time, so much as *how* the time is spent during the field experiences, which seems to determine their effectiveness. In our study, for example, we found that an emphasis on inquiry procedures rather than the time involved seemed to have a more significant impact on the TCs' perceptions of their instructional competence.

The consistently higher means and less variability in the Inquiry group ratings across all INTASC standards included in our study may support the premise that preparation to teach can best be achieved through a more specifically structured, extensive field experience focusing on inquiry learning procedures. The various statistically significant results that consistently favor the Inquiry group over the Control group on two of four standards and the PDS group on three of four standards reflects the significant impact of inquiry-based field experiences upon the preparation of novice teachers.

We interpret the Inquiry group's higher ratings than the Control group ($p<.01$), and the PDS group ($p<.05$) on INTASC principle 9 (Reflective Practice: Professional Growth) to be attributable to TCs' heightened focus on reflection and inquiry into their classroom practices in combination with the additional training that each of their mentors received to enhance their abilities to facilitate and guide inquiry into professional practice.

On INTASC Standard 5 (Learning Environment: Uses practices that create positive learning environments for social interaction, active learning, and self motivation) the high overall ratings among the three groups can be indicative of the emphasis placed on active, learner-centered, and authentic instruction within methods courses. Further, this emphasis is more characteristic of the PDS field sites and is exemplified even more within the inquiry field-based experiences, thus supporting the findings that the Inquiry group ratings are statistically significantly higher than the Control group ratings ($p<.05$), while the Inquiry and PDS groups ratings were not found to differ significantly.

With regards to INTASC Standard 7 (Planning for Instruction, based upon knowledge of content, students, the community, and curriculum goals) the mean for the Inquiry group is different from the Control and PDS groups. The Inquiry groups' ratings are higher than the PDS group ($p<.05$), but are not statistically significantly higher than the Control group. We believe this latter finding is related to the greater variance among the Control groups' ratings which are manifested in more observed overlap of the confidence intervals associated with these groups. While planning for instruction is definitely associated with field experiences, planning is also emphasized during university coursework as well. Another factor that may contribute to the TCs' ratings of their planning abilities can be associated with the influence that classroom mentor teachers have on their mentees. The mentor teachers among all groups guide the TCs' instructional planning and encourage congruence with their classroom curriculum and instruction because the plans are implemented in the classroom for which they are responsible.

The mean ratings relating to INTASC Standard 8 (Formal and Informal Student Assessment) are relatively low among all three groups. While all three groups completed a literacy assessment course earlier in their degree plans, and assessment is included in various methods courses, the novices appear to focus more on their own instructional performance than on the learner's performance in response to classroom instruction. This perspective is generally consistent with egocentric views of TCs as they tend to focus more on what they, as instructors, plan or do and less on how the learners act or respond to them (Ward & McCotter, 2004). It is important to consider that some TCs may begin to understand the interdependent relationship between their practice and student achievement as they acquire experiences sufficient enough to facilitate their transition from early egocentric views of teaching toward a more integrated or inclusive perspective. This experience allows them to recognize the connections among *what* they input into their lesson plans and *how* they implement instruction directly influences outputs in terms of student performance or achievement. It is also important to realize that some TCs will not make this transition until they have completed their preservice teacher preparation programs and they gain additional experiences as fulltime classroom teachers of record.

The TCs in the Inquiry group rate their understandings of assessment statistically significantly higher than the PDS group ($p<.05$) accounting for their heightened awareness of the importance of assessment while inquiring into their professional practice and its impact on learning. While the observed ratings for the Inquiry group are higher than the Control group, the wider variance of responses by the Control group participants causes a greater degree of overlap between the confidence intervals for these two groups.

The analyses of the latent factors of disposition, performance, and knowledge across the various INTASC standards tend to result in higher ratings for the Inquiry group. The finding that the Inquiry group rates items reflecting dispositions significantly higher than the PDS and the Control groups may be at least partially

attributed to the heightened perspectives of professional interests and commitments to coursework and field-based activities due to the focus on inquiry methods and direct involvement in an action research project. This may be further evidenced by the significantly higher ratings of the Inquiry group over the Control group regarding the performance factor across INTASC standards. The fact that both the Inquiry and PDS groups spend more time in the field, thus having additional opportunities to plan and implement instruction, getting to know the learners in the classroom, and interacting with their mentors and students, support a more confident perspective regarding their ability to perform professionally. The finding of no statistically significant difference among the groups regarding professional knowledge is not too surprising, since all three groups complete the same coursework during the semester. We believe that professional knowledge, as measured by the IRS, is more related to the common coursework activities than to the various field-placement activities that occurred during this study.

So, we conclude that it is probable that this Inquiry group of TCs were able to more easily and effectively bridge the "two-worlds" pitfall (Feinmen-Nemser & Buchmann, 1985). We contend that these classroom inquiry experiences are even more effective than the PDS and Control field experiences, bridging the gap between the theoretical aspects of university courses and some of the practical aspects of teaching. We agree with Darling-Hammond (1998) and Feiman-Nemser (2001), that teacher educators must provide the most appropriate preparation for future teachers that will enable them to connect their university learning to the knowledge and skills it takes to learn to become effective teachers (Morrow, Tracey, Woo, & Pressley, 1999). As the university professors and mentors direct the Inquiry group, they function less as sages on the stage or as directors at the podium, and more as facilitators of learner-generated questions, and supporters of learner-acquired behaviors and attitudes associated with active learning, critical thinking, and problem solving. These practices help to encourage the development of lifetime effective teaching skills (Darling-Hammond), as is noted on the IRS, while helping to encourage TCs to seek answers to their own questions about teaching and gain satisfaction from worthwhile and challenging learning opportunities.

As we look back upon the differing field-based procedures employed in this study, we realize that the field of teacher education research must look even more intensely at the nature of the field-based experiences they provide for TCs and determine which of all the extra efforts are most worthwhile while seriously heeding the following challenge issued by Zeichner (1999) nearly a decade ago.

> There is no more important responsibility for a school, college, department, or faculty of education than to do the best job that it possibly can in preparing teachers to teach in the schools of our nation and to support the learning of teachers throughout their careers. If we are not prepared to take this responsibility more seriously and do all that we can to have the best possible teacher education programs, then we should let someone else do the job. (p. 13)

Limitations and Implications

The discussion relating to the concerns with trustworthiness of self-report data typically centers on one of two points (Beatty, 2003, 2004). First, experts argue that honesty in self-report data is the greater concern. This argument lies in the expectation that all people want to look good to authority figures because they have a need to impress or please others that supplant the need to be honest; therefore, self-report data are inherently faulty. There is some merit to this concern about self-report data where the stakes are high for participants. In the current study, the stakes were relatively low because data were coded and confidential. Therefore, the results could not be associated with individual TCs, and they were not aware of any comparison being made among the three groups. The second issue with self-report data is that if the person self-reporting has greater self-awareness and a broader perspective than another person in the same group, then that person would likely rate themselves lower than the person who has a lower self-awareness and narrower perspectives on the traits in question.

The second concern is paramount in this study. If in fact, participants who have a greater understanding of the ideas in question and themselves do rate themselves lower than others, then one would expect that students with the fewest experiences and the least exposure to the concepts to rate themselves higher. In this case, one would expect the Control group to rate themselves higher or on par with the other two groups. However, this did not occur in this study. Therefore, one is free to assume either that the premise about self-report data is faulty or that students in all three groups understood the concepts in question and were able to effectively rate themselves. Regardless, of which case the reader chooses to subscribe to, it is clear that generalizability beyond this study's parameters would be inappropriate. The nature of this study is highly contextualized and situated within the human endeavor to learn (Lincoln & Guba, 1985). Therefore, the major contributions of this study are to the theoretical aspects of teacher preparation. For example, much of teacher preparation is considered in behavioral terms, that is, put TCs though a specific set of practices over an extended period of time and they will learn to be effective teachers. These models are evolving to more carefully consider the tasks in which TCs engage while in schools, the expectations for implementing practices learned in methods courses, and then careful consideration of ones' own inquiry project about the teaching and learning process. It is these evolutions of teacher preparation programs that are constructivist in nature, blurring the line between teacher and student, necessitating each learn from the other in a shared context but with requisite diverse expectations for the learning outcomes.

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Appendix A

Interstate New Teacher Assessment and Support Consortium (INTASC) Standards for Preservice Teachers

1. Content Pedagogy: Understands the content areas and can create strategies that are meaningful.

2. Developmental Appropriateness: Understands child development and can provide appropriate learning opportunities.

3. Differentiated Instruction: Understands differentiated instruction for different learning styles and creates adapted opportunities for diverse learners.

4. Varied Instructional Strategies: Understands and uses many instructional strategies to develop critical thinking, problem solving and performance skills.

5. Learning Environment: Uses motivational practices that create positive learning environments for social interaction, active learning and self motivation.

6. Effective Communication: Uses effective verbal, nonverbal and media communication to encourage inquiry, collaboration and supportive interaction.

7. Planning for Instruction: Plans instruction based upon knowledge of content, students, the community, and curriculum goals.

8. Formal and Informal Student Assessment: Understands and uses formal and infor-

mal assessment strategies to evaluate intellectual, social and physical development of the students.

9. Reflective Practice: Professional Growth: Evaluates self in relation to choices and actions on students, parents and other professionals.

10. School and Community Relationships: Fosters relationships with school colleagues, parents and agencies in the community to support learning and well being of students.

Appendix B

Sample of 6 items from the 63-item INTASC Readiness Survey

Item #	St.	Statement	Sample	5	4	3	2	1
2	1	Can create learning experiences that make subject matter meaningful for students	Knowledge Item					
10	2	Assess students' thinking and experiences as a basis for instructional activities	Performance Item					
29	5	Take responsibility for establishing a positive climate in the school as a whole.	Disposition Item					
40	7	Value both long and short term planning	Disposition Item					
43	8	Know how to select, construct and use assessment strategies and instruments	Knowledge Item					
51	9	Am committed to reflection, assessment, and learning as an ongoing process	Disposition Item					
63	10	Acts as an advocate for students	Performance Item					

Note. A full version is available from the authors

5 = Well prepared
4 = Adequately prepared
3 = Marginally prepared
2 = Poorly prepared
1 = Not yet prepared