Comparing Interactions of Field-Based and Campus-Based Preservice Teachers

Johnnie Thompson, Linda Bakken, Wei-Cheng Mau

Historically, the United States has been faced with the challenge of providing an adequate and appropriate education to a diverse population. As the ethnic tapestry depicting American culture becomes more interwoven and complex each year, the demands to provide such an education have not grown any easier. The National Commission on Excellence in Education (1983) focused on the shortcomings of public schools and identified ineffective teaching as a significant cause of school failure. Universities and colleges were charged with failing to meet the challenge of improving the qualities of teachers entering the field of teaching (Johnston & Assoc., 1989).

The increasing cultural diversity of American schools demands that effective teachers possess knowledge, skills, understanding, and the ability to communicate with those who are different from themselves (e.g., Banks, 1994a; Bennett, 1995; Edmonds, 1986; Garcia, 1992; Grant, 1992). According to the United States Department of Education (1994), teachers in public elementary and secondary schools in 1990-91 were comprised of 86.5% White, 8.3% Black, 3.4% Hispanic, and 1.8% other minorities. The proportion of minority students in elementary and secondary schools increased between 1984 and 1994; minority enrollment ranged from 70% to 96% in the nation's 15 largest school systems. This disparity in the backgrounds and cultures between teachers and pupils is likely to continue to widen. This disparity is evident in the students who enter the teacher education program. Most of them are White, middle-class females (Bakken, Belt, Baker, & Dowd, 1993), who are ill-prepared to teach children with backgrounds different from their own (Zeichner & Baker, 1995). Students' perceptions, ideals, and worldviews regarding other ethnic groups are the result of their own life experiences (Bennett, 1995).

It is difficult to change students' early perceptions of life and school during teacher education programs (Buchman, 1987; Powell, 1992; Weinstein, 1988, 1989). Allport (1979) suggests that a phenomenon called "attitude regression" occurs. After a period of time, people's opinions tend to slip back toward their original point of view (although perhaps not entirely back to their original perspectives). He further indicates that a few detached hours of intercultural education cannot offset the total effects of the environment; rather, the deeper the acquaintance and the more realistic the contacts, the greater will be the change. Allport contends that action is ordinarily better than information; therefore, teacher education programs would do well to focus on actively involving the students. The National Center for Research on Teacher Education (1991) questions whether teacher education programs, with fragmented curricula and limited connection with school-based experiences, can remedy the cultural deficits of candidates within the scope of time available to work with them. These disconnected formats that typically require little time spent in actual classrooms, therefore, provide inadequate opportunities for students to translate theory from campus-based courses into practice and to develop culturally sensitive instruction.

To overcome the rigidity that often characterizes preservice teachers' perspectives on teaching, scholars have acknowledged the need for field experiences early in teacher education (e.g., Birrell, 1994). Holt-Reynolds (1992) has pointed out that field experiences enable teachers to link university course work with classroom instruction in ways that increase the utility of knowledge gained during preservice programs. Professional Development Schools represent a strategy for building continuity between campus-based and school-based teacher preparation. Based on the recommendations of the Holmes Group (1990), preservice teachers would participate in an early and intensive internship. This early extended field-based experience, peer tutoring, mentorship, collaboration and onsite classes of

Professional Development Schools are designed to reinforce theory with practice. Darling-Hammond (1994) indicates that Professional Development Schools are based upon tested medical models of teaching hospitals where interns, practitioners, and researchers collaborate to improve the medical profession. She states that, similarly, preservice teachers are placed in learning communities that provide sustained and rigorous study, dialogue with master teacher educators, and in-depth interactions with children, families, and colleagues. These clinical experiences engage preservice teachers in problem solving, observations, and studies of student learning enabling them to develop into reflective practitioners (Holmes Group, 1990).

Poor teaching strategies generate poor students who then become the next generation of poor teachers. Research that addresses beginning teachers' experiences in the classroom indicates that the probability for long-term success is diminished because beginning teachers lack opportunities to learn to be reflective (McDonald, 1980; Ryan, 1979; Tisher, 1978; Veenman, 1984). On the other hand, the Houston AT&T report on Teachers for Tomorrow Partnership (1994) suggests that, as a result of professional development school design, teachers involved in the program themselves become more collaborative and reflective. The report also indicates that the PDS teachers take an active interest in the training of future teachers. In addition, Hestad and Dillard (1994) report that for PDS, "there is improved teacher preparation, renewed faculty within the public schools, greater community involvement, and enhanced learning for public school children" (p. 22).

Although the theory provides a rationale for professional development schools there is little empirical evidence that these changes in undergraduate teacher education programs do, indeed, increase long-term change in future teachers' knowledge and attitudes toward diversity (Grant, 1992). Therefore, this study provided an important effort to develop an empirical basis for the theory. The specific purpose of the current research was to investigate whether students who participated in a PDS preservice teacher program, compared to students who participated in a campus-based program, would significantly increase in (a) their knowledge of multicultural education, (b) their positive attitudes toward multicultural education, and (c) their confidence to teach in a multicultural educational setting.

Methods

Description of Teacher Education Programs.

This study examined two different teacher education programs within the university's college of Education to prepare undergraduate students for teaching careers. One program, which served as a control, was a campus-based program that focused on theory and practice as presented in campus-based coursework with limited field-based experience in schools. The second program, associated with Professional Development Schools, served as the experimental program. The focus of this program was on providing extensive school-based field experiences and limited campus-based coursework covering theory and practice. Each of these programs is described in greater detail below.

Campus-Based Program.

The campus-based program is the result of a carefully reviewed and systematically revised program of sequential blocks of coursework. Weekly field experiences integrate courses within each block and emphasize application to the profession. The introductory set of courses, called the Pre-Professional Block, consists of a course and its attendant field experience to acquaint the student to the profession before making a commitment to the program. The first set of professional courses, Block I, provides a firm footing in the understanding of human diversity. It presents three views of diversity, culture, development, and ability-in one semester with a field experience that integrates knowledge from all three. The second set of professional courses, Block II, focuses on general issues of curriculum, instruction, and evaluation and includes a one-hour field experience. During Blocks I and II, students spend one hour per week in field experiences. The third set of professional courses, Block III, focuses on content-specific

curriculum and methods, spending two hours a week in a pre-student teaching field experiences. The final block of professional courses, Block IV, consists primarily of full-time student teaching.

PDS Program.

During the 1995-1996 school year, faculty from our college of education and public school personnel in Wichita implemented the first Professional Development Schools collaboration in the area. The PDS collaboration included three Title I elementary schools with a student population of 6% Asian American, 10% African American, 65% Hispanic American, 1 % Native American, and 17% European American students. This diverse population made these schools excellent choices for intensive, school-based experiences for teacher Education students because they reflected the multicultural nature of today's schools. The Professional Development School (PDS) program was implemented in 1995-1996. While the block structure of the campus-based program remains, considerably more time is spent in the school and classroom. For the first two Blocks, students spend 15 hours per week on site. For these two blocks, students spend 20-30% of their time in on-site content coursework and 70-80% of their time in the elementary or middle school classrooms. In Block III, students spend 10 hours per week on site (20-30% for content coursework and 70-80% in the classroom). In Block IV, students spend 35 hours per week on site (one hour of this is in the WSU/PDS classroom), working in the classroom and performing other professional responsibilities. The students in the PDS program are expected to become participating members of an on-site team; they build strong relationships with staff, students, parents, and community members.

One core course per Block was delivered on site by college professors. PDS students were assigned to work with a clinical faculty associate (CFA is an experienced certified classroom teacher). Clinical faculty associates involved PDS students in grade-level planning, further applications of theory, and actual classroom experiences. PDS students became participating members of the onsite instructional team. The Block I PDS students spent 15 hours (8:30-11:30 a.m. daily) per week on site. Block III PDS students spent 10 hours (1:30-3:30 p.m. daily) per week on site.

Design and Participants in the Study

The purpose of this study was to explore and document differential effects of the two teacher education programs on students' perceived knowledge, attitudes, and confidence in teaching in multicultural classrooms. While we hope to evaluate the longitudinal impact of the two programs, this article reports on differences that were measured at various points in students' programs to understand what differences in knowledge, attitudes, and confidence might occur across program blocks. Therefore, two groups of students enrolled in Blocks I and III in the campus-based and the PDS program were evaluated in the fall semester at the beginning and end of Blocks I and III and at the end of the following spring (after completion of Blocks II and IV respectively).

The students in the experimental PDS program were undergraduates who were enrolled in elementary education and volunteered for the PDS program based on their willingness to commit the extra time necessary to be on site. There were 10 Block I students and 15 Block III students who participated in the PDS program. Participants in the campus-based program were undergraduate students who also were enrolled in elementary education. There were 24 Block I students and 18 Block III students in the control groups. There were 55 females and 8 males comprising both experimental and control groups. Over 90% of the students were European American.

Instruments

Knowledge of multicultural education issues was measured by a modification of the *Survey on Multicultural Education* (Sparks & Wayman, 1990), Part B. This section of the survey has a 10-item force-response scale (e.g., "Do you understand the diverse perspectives of various ethnic groups and their

contributions to society?") that requires a "yes," "no," or "not sure" answer from the participant. Statements were scored as follows: no= 0, not sure= 0, and yes = 1. Scoring could range from 0 to 10 points. Attitudes toward multicultural education were measured by a modification of the same survey, Part C. This section consisted of 19 items on a 5-point Likert-type scale (e.g., "To what degree do you believe in providing an understanding of the customs and traditions of diverse cultural backgrounds?"). These items were scored from a -2 for "strongly disagree" to a +2 for "strongly agree." Scores could range from -38 to +38. The survey is straightforward in the content of the questions; therefore, only face validity has been established for the instrument. Reliability coefficients estimated for this sample were .63 for Part B (multicultural knowledge) and .93 for Part C (multicultural attitudes).

To measure perceived confidence for teaching, participants were measured on the *Revised Teacher Efficacy Scale* (Gibson & Dembo, 1984). The survey consists of 20 items on a 6-point Likert-type scale that ranged from a 1, "strongly agree," to 6, "strongly disagree" (e.g., "When a student does better than usual, many times it is because I exerted a little extra effort."). Scores ranged from 20 to 120. Internal consistency using Cronbach alphas yielded a reliability of .74. The Teacher Efficacy Scale has been developed and modified over a period of years. Gibson and Dembo report that, as a result of their work, the scale reports convergent validity significant beyond the .05 level, support for discriminant validity, and beginning evidence of construct validity. The authors also indicate internal consistency of .70 for the scale.

Part A of the *Survey on Multicultural Education* (Sparks & Wayman, 1990) included demographic information. Specific data regarding biographical and environmental backgrounds of both experimental and control groups were collected.

Pretest-posttest designs present a threat both to internal validity (the possible change to the participants is due to the pretest) and to external validity (the pretest might sensitize the participants to the purpose of the tests). Although there is no way to eliminate these threats, Best and Kahn (1998) indicate that using a control group limits the effects of these threats. Best and Kahn further stipulate that (a) if procedures are implemented in a standardized manner at each data-collection time and (b) times between tests is sufficiently long, these measures will decrease threats to test validity. We implemented these recommendations to increase test validity.

Results

Two separate MANOVAs, one for each group based on the differences between their pre-test-posttest scores in the fall and one based on the differences between their pretest-follow-up test scores in the spring, were conducted. Results of the pre-posttest MANOVA indicated a significant Site (PDS or campus) by Block (Block I or Block III) interaction, $F(3, 53) = 3.25, < .03$. There were no main effects for Site, $F(3, 53) = .39, p > .76$ or Block, $F(3, 53) = 2.04, p = .12$ (see Table 1). Due to the significant interaction between Block and Site, differences within each Block (by Site) were examined. Results of the ANOVA indicated a significant difference between the PDS Block III students and the Campus Block III students in multicultural knowledge, $F = 4.93, p < .04$. Block III PDS students (M difference = .93) gained significantly greater multicultural knowledge than the Block III campus students (M difference = -.72), suggesting that the experiences in the PDS may help retention of multicultural knowledge. The results also indicated a significant difference between the Campus Block I and Campus Block III students in multicultural knowledge, $F(1, 36) = 18.28, p < .000$. Block I campus students (M difference = 1.50) gained significantly greater multicultural knowledge than the Block III Campus students (M difference = -.72), further substantiating that Campus Block III students actually may lose ground in their multicultural knowledge. There were no significant differences found in the areas of multicultural attitudes or teaching self-efficacy.

The second MANOVA addressed the pretest-follow-up test differences, and the results indicated a significant difference for Blocks, $F(3, 46) = 3.03, p < .04$. There were no significant differences for Site, $F(3, 46) = 1.23, p < .31$, or Block by Site interaction, $F(3, 46) = 1.03, p < .39$. Post hoc ANOVAs on the pretest-follow-up test differences between Blocks I and III indicated a significant difference on multicultural

knowledge, $E(1, 55) = 11.32$, $p < .001$. Block I students gained significantly greater multicultural knowledge during this period than Block III students. This generally substantiates the findings of the first MANOVA, adding that both Block III groups lose some of the gains in multicultural knowledge from the end of their Block I course (PDS Block III M difference = .70; Campus Block III M difference = -.30). Again, however, the Campus Block III group indicated a loss between the two scores, whereas the PDS Block maintained a gain between the two scores (although the gain was not as great as that between pretest-posttest scores). There were no other significant differences found for multicultural attitudes or teaching self-efficacy.

Discussion

We set out to study whether students participating in a PDS preservice teaching program would increase in their knowledge of multicultural education significantly more than those preservice students in a campus-based program. We found a significant difference between the Block III PDS and campus students. However, we did not find significant differences between the Block I PDS and campus students. This is likely because during the first semester of the teacher education program, the foundations of multicultural education are addressed with both groups and because the field-based components are more effective at later stages in the program. Differences in multicultural knowledge between the Block III PDS and campus students suggest that the Professional Development School program provided experiences necessary to *maintain* knowledge regarding diverse cultures. Litchen, Johnson, and Regan (cited in Banks, 1994b) reported that in their study, teachers' attitudes and willingness to interact with different ethnic groups was based on the racial and ethnic composition of the school, the classroom atmosphere, and the length of time spent in that atmosphere. That there were no differences between the Block I and Block III experimental groups helps substantiate the notion that length of time in field experiences is influential. This is further substantiated by the finding that Block III campus students scored lower than Block I campus students and suggests that without experiences to maintain the knowledge base it may be lost.

Providing teacher Education students with experiences that connect what they have learned in coursework may be a relevant means to provide students who come primarily from the majority culture with the knowledge and attitudes necessary to successfully teach in schools with diverse cultures. In the PDS program, during Block I, the undergraduates study child development in the contexts of many different cultural milieus; their experiences in the PDS classroom held to solidify this knowledge base and increases their ability to understand children who come from diverse backgrounds. Daily opportunities to interact on a one-to-one basis, communicate with parents, work with small groups of students, plan and implement instructional strategies, and receive feedback from peers and professional staff can help build positive attitudes toward working with children who may have different needs, different learning styles, and different ways of interacting with adults. By continuing to work in this environment after the Block I coursework is finished, these experiences are magnified both by their past knowledge built from the first Block and now fortified by their coursework in Block II. Block III, we surmise, is a further means of using this knowledge base as they develop methodology for working with specific age groups.

Whereas the results were in the direction predicted, two of the findings were not significant. This lack of significance may be due to several factors not related to the success of the PDS program and should be examined in future research. Also, the instrument measuring multicultural knowledge and attitudes (Sparks & Wayman, 1990) may reflect a validity concern: students may reply in terms of social desirability ("What is the 'right' way to think?"); second, small numbers were involved in the PDS program because of the nature and intensity of the professional development process; and third, the selection process itself may influence the results because the PDS groups were volunteers willing to commit to the program and its goals and were willing to interact with people different from themselves.

However, the dynamics of population change indicate that the United States is becoming an increasingly multiethnic and multilingual society (Bakken, 1992), making our need to find ways for

teachers who come to teacher education programs with limited knowledge about and experiences with cultures different from their own important. Preparing undergraduate teacher education students to effectively teach in multiethnic and multilingual schools is not only advisable, it is essential.

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