

**Educational Change and Challenges:
Constructivist, Collaborative Ideals in Teacher Preparation**

Miguel Licona

New Mexico State University

Timothy G. Cashman

University of Texas at El Paso

Abstract

The following study details the collaboration of a university's secondary education faculty on the United States and Mexico border. Calls for improved test scores, better preparation and retention of teachers, and improved graduation rates of teacher candidates were imminent concerns. The faculty responded to these demands by developing an integrated teacher preparation program based on shared activities, readings, technology, electronic journals, and shared epistemological values. The context for the reform efforts included a consideration for learning theory. Furthermore, secondary education faculty facilitated constructivist, collaborative pedagogies as integral to teacher preparation. A new focus was placed on learner-centered praxis rather than on teacher-centered performance. This article presents the transformative process of teacher preparation from the perspective of two participant professors.

Introduction

Teacher preparation programs are continually faced with challenges to improve both the quality and quantity of teachers. The following paper is an explication of how secondary education faculty at a university on the United States and Mexico border sought to address the calls for a restructured secondary teacher education program. In the year 2000 faculty from the university's Teacher Education and Educational Psychology and Special Services Departments collaborated to develop an integrated teacher preparation program based on shared activities, readings, technology, electronic journals, and shared epistemological values. The newly-conceived teacher education program was designed to distribute the workload among course instructors and provide for increased understandings and meaningful experiences for students and faculty.

The aforementioned Southwestern United States university has a student population of approximately 20,000, of whom nearly 80% are of Mexican or Mexican-American origin. This statistic reflects the ethnic makeup of the urban university and its

surroundings on the United States side of the border. Directly across the international boundary is a Mexican city with a population of about 1.8 million. The university's The Secondary Teacher Education Program (STEP) is a teacher preparation program that was first implemented in 1976. It called for professor collaboration and involvement in local public schools using the traditional triad student teaching configuration as the final semester in the course of study (COE, 1976a, 1976b). After numerous revisions to the original STEP program, secondary teacher education was reviewed for restructuring in 1996, and the program underwent significant design changes after 2000. The restructuring took place as the result of several observations and issues that emerged with regard to secondary teacher education in an urban border community. Among the salient questions that surfaced since the inception of STEP in 1976 are the following:

- What salient needs called for a significant restructuring of STEP?
- What lessons have been learned from the various incarnations of STEP?
- If teacher education programs must continually reflect on program efficacy, what new approaches to teacher education better promote a social transformation of pre-service educators so that they are better prepared for teaching in urban schools on the United States and Mexico border?

History and Overview of STEP

Reform efforts are cyclical and many of the aspects of the current teacher program at the university can be seen in the reform effort of the 70s. In 1976 the field-based initiative known as STEP was implemented at this Southwestern United States public university. The traditional student-teaching model was replaced with cohorts, where secondary pre-service teachers moved through a field-based program that called for professor collaboration and involvement in the public schools (COE, 1976a, 1976b).

The context for the reform efforts of 2000 included a change toward learning theory, an effort that did not exist during the previous thrust for change. A constructivist foundation that emphasized student-centered teaching approaches was implemented. A new focus was placed on learner-centered praxis rather than on teacher-centered performance (National Research Council, 2000).

Before the 2000 initiatives, secondary level teacher preparation courses at the university were independent with no overlap or interconnection. Low passing scores on the teacher certification tests, student complaints of irrelevance of course work, and a re-examination of both faculty and student workloads precipitated dialogue among a group of professors referred to as secondary block faculty. Reportedly, many students' attitudes and assumptions of the lack of value in teacher education courses reflected the modeling of their faculty in core area courses. To be more specific, students were often content to replicate the teacher-centered, content-based instruction that had been modeled for them. With the new 2000 initiatives in place, secondary education students were asked to embrace a new view of teaching and learning in the secondary schools.

The dialogue of restructuring focused on altering the transmission model of teaching. Moreover, a new model provided learning contexts where pre-service educators could understand "big" concepts. The principles of constructivism and

curriculum backward design guided the efforts of colleagues to bridge theory and practice (Wiggins, G., & McTighe, J., 1999; Beane, 1997). For example, future teachers considered multiple perspectives, serving a guide rather than an authority, metacognition, authentic activities and measurement, and beginning their teaching with specific learning outcomes.

Secondary block faculty sought to model collaborative, reflective practice (Henderson, 2001; Wilkin-Canter, 1996; Moore, 1994; Heywood, 1994; and Zeichner, 1994). University educators shared secondary block content and assignments. Each faculty member had to omit some of their own personally-designed assignments due to time considerations.

Thus, secondary block faculty members were forced to dialogue and compromise with each other in the teaching of secondary education cohorts. These collaborative efforts required risk-taking on the part of all faculty involved. Amongst the challenges that faced College of Education secondary block faculty were the following: uncertainty of other secondary faculty's goals; an intensification of learning experiences and limited time for in-depth learning experiences; a faculty member's subject loyalty versus team allegiance; craft pride, caring, and moral purpose that, at times, conflicts with other faculty member's convictions. These charges concur with those faced by secondary faculty in colleges of education who engage in change initiatives nationally (Nolan, J., & Meister, D. G., 2000).

Consultants visiting the campus noted that the College of Education started a number of programs that could serve as models for other institutions. The missing component to restructured and newly created programs was a follow-through on had been started. It was recommended that key players should reflect on the successes of programs already in place, report out to larger audiences, and receive feedback from outside entities to build upon and sustain previous achievements.

Therefore, out of the 2000 initiatives emerged STEP faculty who sought to practice collaboration, reflective practice, constructivism, and promote transformative experiences for pre-service educators. Ideally, the notion of the isolated, autonomous teacher was to be replaced by an "interactive professionalism" with "teachers and others working in small groups interacting frequently in the course of planning, testing new ideas, attempting to solve different problems, (and) assessing effectiveness" (Fullan, 1992, p. 120). STEP faculty, in turn, should heed the advice of outside consultants, stay the course, and continually self-reflect and seek to improve on a potential model for teacher education nationally.

A Novel Approach

Discourse among the STEP faculty focused on altering the transmission model of teaching. A new approach to teacher preparation was designed for the provision of learning contexts for students to understand larger concepts rather than simply commit to memory and recall facts. This journey would cause students to interrogate their understanding of curriculum, pedagogy and assessment. Colleagues sought to bridge theory and practice. Secondary block faculty sought to model collaborative, reflexive

practice (Gross, 1997; Heywood, 1994; Moore, 1994; Wilkin-Canter, 1996; Zeichner, 1994).

The integrated, field-based approach was based on best practices (Darling-Hammond, 2003; Zemelman, Daniels, & Hyde, 1998). According to Darling-Hammond (2003), pre-service teachers should be placed in learning communities that provide rigorous study and dialogue with master teacher educators providing in-depth interactions with children, families, and colleagues. Moreover, a constructivist approach toward teacher education better prepares pre-service teachers to question the concept of learning constructs and understand the capacity of humans to develop their own realities (Cannella & Reiff, 1994).

Reflexivity was a key tenet of the 2000 STEP initiatives. Reflexivity is related to effective dialogue during teaching experiences (Heywood, 1994; Moore, 1994; Wilkin-Canter, 1996; Zeichner, 1994). According to Moore (1994), reflexivity, the process of critical, systematic reflection upon practices while questioning how practices work, provides the basis for a deeper understanding of underlying principles and causal processes. During their experiences with STEP, university faculty and pre-service educators alike found that they must strive to understand the processes involved in developing expertise.

Data Collection

STEP was part of an action-research learning community that constantly sought feedback and new insights to continually shape the program. Pre-service educator surveys, exit interviews, feedback from area administrators, teachers, and school districts, as well as personal observations and records provided secondary education faculty with insight and data regarding the efficacy of secondary level teacher preparation.

The methods and procedures in this study were recorded according to considerations for naturalistic inquiry (Lincoln & Guba, 1985). Accordingly, the intent of this research was to follow a form of inquiry that legitimized the perspectives and experiences of the people involved with STEP.

The data were gathered from three major sources--off site via lessons learned from other secondary field-based educational programs, on site via participants in the field based program, and on site via colleagues in other colleges who share in the preparation of these teachers.

The Call for Change

By the year 2000, research on the brain and learning emerged from the neurosciences, psychology, anthropology, and sociology, informing new initiatives in a constructivist realm (National Research Council, 2000). Informed by new knowledge and a shift in paradigms from behaviorism to constructivism, the stage was set to revitalize the teacher preparation program. Professors began meeting regularly to share ideas and develop a vision of what the secondary program would look like. Some resisted the changes due to unfamiliarity with the paradigm within which this initiative was taking place. Other faculty opted out of continuing their participating within STEP. Certain

individuals participated tentatively while the group worked toward sharing ideas and strategies that would support a common vision. A core group of STEP professors began attending conferences and presenting the new roles. The structure began to take a less amorphous form.

In the fall of 2001, the State Board for Educator Certification placed the university's teacher preparation program into "accredited under review" status due to low Exam for Certification of Educators in Texas (ExCET) scores. This meant that the university teacher preparation program could be "taken over" and managed from an outside entity within three years if scores did not improve. There was a mad scramble to push test scores up so that the state would not assign an external control agent to oversee the program.

From 2000 to 2003, much maneuvering took place. The group sought to include more professors that would support their integrated, constructivist approach to teacher preparation. Students participating in the teacher preparation program were now called interns, which was based, in part, on medical models of professional development that require immersion. Interns met with faculty prior to registration for education courses at a teacher education orientation day designed to welcome them into the secondary education program.

As of the Spring 2003 semester, STEP course offerings divided into two blocks, as opposed to one block of teacher education courses. Students took two teacher education courses per semester in each of the two semesters rather than taking all four courses at once as in the previous semesters. This alleviated some of the time constraining issues for professors and pre-service educators alike. From that point on secondary education students were engaged with four education professors over two semesters. Consequently, secondary pre-service educators had 30% more in-class contact hours per education course than when they were enrolled in four education courses simultaneously.

The college was determined to help teachers pass the teacher examinations by calling for improvement in the quality of teachers, moving to support new teachers, and increasing the number and quality of their mentors. With a more rigorous test preparation program in place and more attention finally being directed toward secondary teacher education, block faculty began a collaborative move to improve the quality of student experiences in their courses while supporting the competencies for the state teacher examinations.

College administrators moved to put a rigorous test preparation program into place while asking all professors teaching in the program to modify syllabi and course content to reflect the exit test competencies. Secondary education faculty were faced with the challenge of altering courses, but the faculty thought alterations could be done in ways that would not specifically "teach to the test." Specifically, STEP faculty focused on professional development related to current research and best practices. Better test scores would have to be a bi-product of the STEP approaches rather than the key focus.

Passing rates for secondary pre-service educators have improved significantly, and the university's teacher preparation program is no longer in the "accredited under review" status. The university's teacher preparation program is not under threat of being "taken over". The faculty responded to the demands of improving test scores while developing an integrated teacher preparation program based on shared activities and shared epistemological values. At the same time, STEP remained true to their objectives of facilitating constructivist, collaborative pedagogies as integral to teacher preparation.

Implementation of the 2000 STEP Initiatives

Under the new STEP initiatives, collaborative approaches were modeled for the pre-service educators by university faculty. Professors and students met during the first class sessions as a cohort. Blocks were created on Mondays and Tuesdays where the professors became facilitators rather than simply interpreters of texts and lecturers. On the first day, professors introduced themselves, shared constructivist approaches, and set the foundation for shared content, activities, journaling, and assessment. Student input was elicited, photos were taken, and students learned how to log on to web-based interactive courseware. Common readings were assigned for the second week of classes.

A key component of the integrated blocks was a "shared common experience." A modified version of a learning cycle was used to structure a common experience for students early in the semester (Atkin & Karplus, 1962). This lesson served as a reference for the remainder of the semester.

Discussion and brainstorming of ideas occurred often. Best practice literacy strategies and suggested modifications were embedded throughout the lesson as students applied the concepts in new settings (Zemelman, Daniels, & Hyde, 1998). Professors acted as facilitators was to establish Socratic dialogues with groups.

These discussions led to identifying the essence of courses. Content was embraced from a "depth vs. breadth" perspective and this would eventually liberate professors to become even more open to other progressive ideas. The group of professors continued meeting and sharing syllabi, negotiating content and finding ways to overlap assignments.

The midterm and final assessments were collaboratively developed and worked to serve all four classes. For the midterm students were paired, given a choices of topics and then asked to go into the schools and develop a collaborative midterm presentation based on action research (Adams, Shea, Liston, & Deever, 1998). For the group final, students were required to write and submit a proposal delineating precisely how they were going to address their topics and were asked to be explicit about each participant's responsibility. They were to acknowledge all parameters of the assignment, including appropriate use of technology, data gathering, and assessment.

All professors evaluated the presentations based on rubrics, and then convened with students to dialogue and negotiate the credit earned by the presenters. Students learned that positive interdependence plays a key role in collaborative efforts.

Implications for Policy and Practice

The university's STEP faculty faced numerous challenges in maintaining and when they reflected upon the viability of their constructivist, collaborative ideals for transformative secondary teacher education. Among the threats to a continuation of the reform initiatives were the following: the high degree of risk-taking required by STEP faculty; the coordination of meetings for the planning and preparation of STEP activities and sharing of ideals; inherent subject and course content loyalty versus team allegiance; and the various threats to personal autonomy that emerged. To alleviate these concerns and to better accomplish team goals new team members should participate in the development of new initiatives in the existing secondary teacher education approach. Research indicates that when educators lack representation in planning stages those individuals lack of clear understanding of the purposes, goals, technical knowledge, and skills to facilitate an interdisciplinary curriculum. These shortcomings exacerbate uncertainties (Meister & Nolan, 2001).

Among the lessons learned after the 2000 STEP initiatives are the following:

1. Time must be allotted for meaningful dialogue amongst team members.
2. Proactive approaches best address potential conflict among professors within team structures.
3. Invariably, teaching teams are confronted with individual versus group concerns. However, the benefits of team and interdisciplinary learning for both teachers and students present a strong rationale for modeling teams and preparing teams for secondary education and secondary classrooms.
4. A willingness to collaborate, contribute, and innovate are prerequisites for new faculty members.
5. Interdisciplinary, team, and transformative educational experiences should remain at the heart of STEP.
6. STEP should move toward providing more secondary classroom educational experiences according the professional development school (PDS) model. Within the PDS model the university's secondary teacher education is coordinated with secondary schools and mentor teachers. Recommendations for improved secondary teacher preparation call for interdisciplinary collaboration as well as greater communication among mentor teachers in the field and university professors (Teitel, 2003).

Hopefully, the time and effort put forth by so many professors into a collaborative, constructivist secondary education program will endure in future versions of STEP, especially within secondary school site collaborations. Innovations resulting from the 2000 initiatives can be sustained at PDS sites provided there is a complete buy-in from important stakeholders at both the university and secondary school sites. In this manner, STEP initiatives will hopefully be enhanced and flourish.

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