

**The Presidential Address to the Association for Career
and Technical Education Research**
Using Standards to Reform Teacher Preparation in
Career and Technical Education: A Successful Reformation*

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Introduction

The purpose of the presidential address at our annual conference is to examine a current issue facing the profession, and pose challenges to the membership in the context of that issue. In seeking a timely topic in which to address you, I sought council from my former department chair, Dr. N.L. “Mac” McCaslin. Dr. McCaslin, in his usual passion for career and technical education, insisted that I speak to you on Perkins Legislation. I tried. I spent several hours in the National Center for Career and Technical Education Library, and finally decided that choosing a topic more dear to my heart than Perkins Legislation was the best route for me to follow. Therefore, I chose to share with you today the standards-driven, real-life, undergraduate teacher education reform effort in the Department of Human and Community Resource Development at The Ohio State University. I shared this two-year reform experience with my colleagues, Drs. Jamie Cano, Jim Connors, Wes Budke, and Neil Knobloch. I hope that our successful endeavor will inspire and motivate you to actively review and consequently reform your preservice teacher programs in career and technical education. Collectively and individually my colleagues and I have written and presented several papers and posters nationally (Cano, Connors, Whittington, & Knobloch, 2003a; Cano et al., 2003b) and regionally (Knobloch, Cano, Connors, & Whittington, 2002) as a result of this rich work. The paper presented regionally (Knobloch, et al., 2002) provides the most comprehensive examination of our reform effort.

*The thoughts and writings presented in this address are the compilation of two years of thinking and writing by my team of colleagues in the Department of Human and Community Resource Development at The Ohio State University: Dr. Jamie Cano, Dr. Jim Connors, Dr. Wes Budke, and Dr. Neil Knobloch. The words in this address are edited directly from our final department report, “A New Vision for Undergraduate Education”, which began as a class assignment for Neil Knobloch, and developed into our department’s life-long, work-in-progress.

I will briefly discuss teacher education, the themes that emerged from the literature regarding successful curriculum reform, and our review of the foundations of teacher education in career and technical education, especially in agricultural education. Finally, I will lead us in an overview of the results of our work—a reformed teacher education curriculum in agricultural education.

Teacher Education

Policy makers and stakeholders are calling for better prepared teachers as a means for raising the academic achievement of students in an increasingly diverse society. Darling-Hammond (2000) suggested that, “universities are essential to high quality teacher education” (p. 181). Smith and Orlosky (1975) wrote that the overall role of the university in preservice teacher preparation was to teach technical and pedagogical knowledge to preservice teachers.

Universities and colleges have traditionally served as the units in which teachers in agricultural education have been prepared. The nature of such preparation, however, has changed very little since its origins in university education. The problem, according to Harris Mitchell, Castenell, Hendricks-Lee, and Mooney (2000), is the complexity of reforming teacher education within the organizational culture of the university. Harris et al. warned that the collegial, managerial, developmental, and negotiating cultures of the university either help or impede the progress of teacher preparation and consequently—teacher education reform.

Successful Reform

My colleagues and I focused on seven themes identified in the literature as being critical to the success of new models for preparing teachers. First, teacher educators must model the knowledge, skills, and dispositions of a caring, compassionate, and competent teacher (Darling-Hammond, 2000; Kettlewell, Kaste, & Jones, 2000; Murray, 2000). Second, teacher preparation programs should be created, implemented, and evaluated based on a body of knowledge consistent throughout the nation for what all teachers need to know to be effective (Darling-Hammond, 2000; Fullan, Galluzzo, Morris, & Watson, 1998; Kettlewell et al., 2000; Lynch, 1997; Murray, 2000; National Commission on Teaching and America's Future, 1996).

Third, the delivery of teacher preparation programs needs to shift from on-campus, formal college classroom settings to clinical learning (Darling-Hammond, 1997; Fullan, et al., 1998; Kettlewell et al., 2000; Lynch, 1997; Task Force on Field Experience Standards, 1999; Thiessen, 2000). Fourth, university teacher educators should conduct collaborative teaching and planning to model integration and improve the articulation of teacher preparation course experiences (Darling-Hammond, 1997; Early, 2000; Harris Mitchell et al., 2000; Kettlewell et al., 2000; Murray, 2000).

Fifth, collaborative partnerships with cooperating centers need to be established and cultivated, and cooperating teachers should be campus partners as well (Darling-Hammond, 1997; Darling-Hammond, 2000; Fullan, et al., 1998; Harris Mitchell et al., 2000; Kettlewell et al., 2000; Lynch, 1997; National Association of State Boards of Education , 2000; Thiessen, 2000).

Sixth, technical, pedagogical, and professional knowledge needs to be integrated within and among technical and general education courses for conceptual understanding (Kettlewell et al, 2000; Lynch, 1997; National Association of State Boards of Education , 2000; Thiessen, 2000). Seventh, all university faculty, including the arts and sciences, need to model effective teaching and create collaborative teaching and planning teams across departments and colleges (Darling-Hammond, 2000; Early, 2000; Fullan et al., 1998; Harris Mitchell et al., 2000; Kettlewell et al., 2000; Lynch, 1997; National Association of State Boards of Education , 2000; Thiessen, 2000).

Need for Reform

Our department and our agricultural education program had experienced a series of transitions over the past several years including a change in department chairs, a reduction in the number of teacher educators, a turnover of existing teacher educators, and a curriculum revision two years earlier in response to a) new state teacher licensure standards, b) university-wide reduction in credits required for graduation, c) reorganization of coursework requirements in the college placing greater emphasis on cultural diversity, students with special needs, and the use of technology in delivering instruction, and d) student-centered learning initiatives. In addition, although the undergraduate curriculum had been revised to meet the National Council for Accreditation of Teacher Education (NCATE) standards, the curriculum and courses had not been assessed for their alignment with the Interstate New Teachers Assessment and Support Consortium (INTASC) principles, nor the Praxis criteria for licensure. In addition, the American Association for Agricultural Education (AAAE) standards for teacher preparation had been recently adopted by our profession, so we were anxious to examine our program against these standards. Finally, feedback from our students had indicated that the curriculum lacked continuity from course to course and from beginning to end, and that the courses were not preparing them for successful completion of the new teacher licensure examination series.

Objectives

The following undergraduate career and technical education in agricultural education reform objectives guided this effort:

1. Identify the foundations and major goals underpinning our teacher preparation program.

2. Identify the major knowledge, skills, and dispositions needed by beginning agriculture teachers.
3. Identify and cross-walk the state and national standards impacting the teacher preparation program.
4. Identify the scope, structure, and sequencing of teacher preparation educative experiences.

To accomplish these objectives, my colleagues and I committed four hours per day every two to four weeks, in an off-campus setting, for two years. We reviewed literature, cross-walked applicable standards, reviewed student input, examined courses of study, and discussed our philosophical beliefs about preservice career and technical teacher education.

Results of the Reformation

Objective 1—Foundations and Major Goals: The philosophical foundations of agricultural education teacher preparation include, but are not limited to, Dewey's (1938) experiential learning, Lancelot's (1944) problem-based teaching, Bandura's (1986) social cognition, and Schön's (1983) reflective practice. In addition, we wanted our teacher preparation program to nurture preservice teachers into successful learners through educative experiences (NCATE, 2001) and to develop teachers who are qualified, competent, and caring (National Commission on Teaching and America's Future, 1996). Based on these foundations, we wrote the major goals of our teacher preparation program: to (a) develop enlightened teachers who exhibit the knowledge, skills, and dispositions aligned with NCATE standards, INTASC principles, Praxis criteria, and AAAE standards; (b) build teacher confidence to teach diverse learners in formal and nonformal educational environments; and (c) create, implement, and evaluate the scope, sequence, and structure of our program based on experiential learning.

Objective 2—Knowledge, Skills, and Dispositions: Experts have asserted that preservice teachers should know and demonstrate proficiency in content knowledge, learning theory, pedagogy, pedagogy-content knowledge, and professional knowledge (Darling-Hammond, 1997; NCATE, 2001). Preservice teachers should also develop pedagogical knowledge based on psychology, sociology, educational anthropology, and human development (Barrick, 1989; Smith, 1969), and possess professional knowledge of the history, philosophy, and current issues of the discipline of agricultural education.

Today, secondary agricultural education teachers are expected to effectively educate elementary, middle school, high school, and adult learners. In addition, Wenglisnky (2000) found that, effective teaching practices that conveyed higher order thinking skills and engaged students in hands-on learning experiences resulted in greater student achievement. Therefore, preservice teachers in our new program are expected to demonstrate competency, and are evaluated throughout the

curriculum, in the following ten standards of state licensure: (1) subject matter; (2) student learning; (3) diversity of learning; (4) instructional strategies; (5) learning environment; (6) communication techniques; (7) planning; (8) assessment strategies; (9) professional development; and (10) student support. Further, our preservice teachers, as a result of our reform, are currently evaluated on their teaching effectiveness using the four domains of the Praxis III performance assessment: (A) organizing content knowledge for student learning, (B) creating an environment for student learning, (C) teaching for student learning, and (D) teacher professionalism (Educational Testing Service, 2001).

Teachers should possess the disposition that all students can learn (Darling-Hammond, 1999; NCATE, 2001). Lancelot (1944) believed that good teachers have certain characteristics: (a) interest in teaching and thinking about the problems it presents; (b) passionate desire to be superior teachers; (c) seeking to understand the principles of teaching and learning and finding better methods of teaching; (d) continuing to perfect their skills of teaching; and, (e) finding genuine pleasure and satisfaction in teaching. Therefore, based on these fundamental beliefs, my colleagues and I adopted a vision of what a preservice agriculture teacher should know, do, and be upon completion of each of four years of an undergraduate teacher education program. A portion of that chronological sequence includes (NCATE, 2001):

- know how students learn and how to make ideas accessible to the learners
- develop meaningful learning experiences that facilitate learning for all students
- reflect on their practice and make necessary adjustments for enhancing the learning experience for all learners
- consider school, family, business, and community contexts in connecting concepts to students' prior experiences, and apply ideas and concepts to real-world problems

Objective 3—State and National Standards for Teacher Licensure: As a beginning point of our two-year reform initiative, our team of teacher educators analyzed and cross-walked four sets of standards (NCATE, INTASC, Praxis, and AAEE) that were pertinent to our preservice teacher preparation program. After cross-walking each item from each set of standards, we discussed them one-by-one, then built our model (see Figure 1).

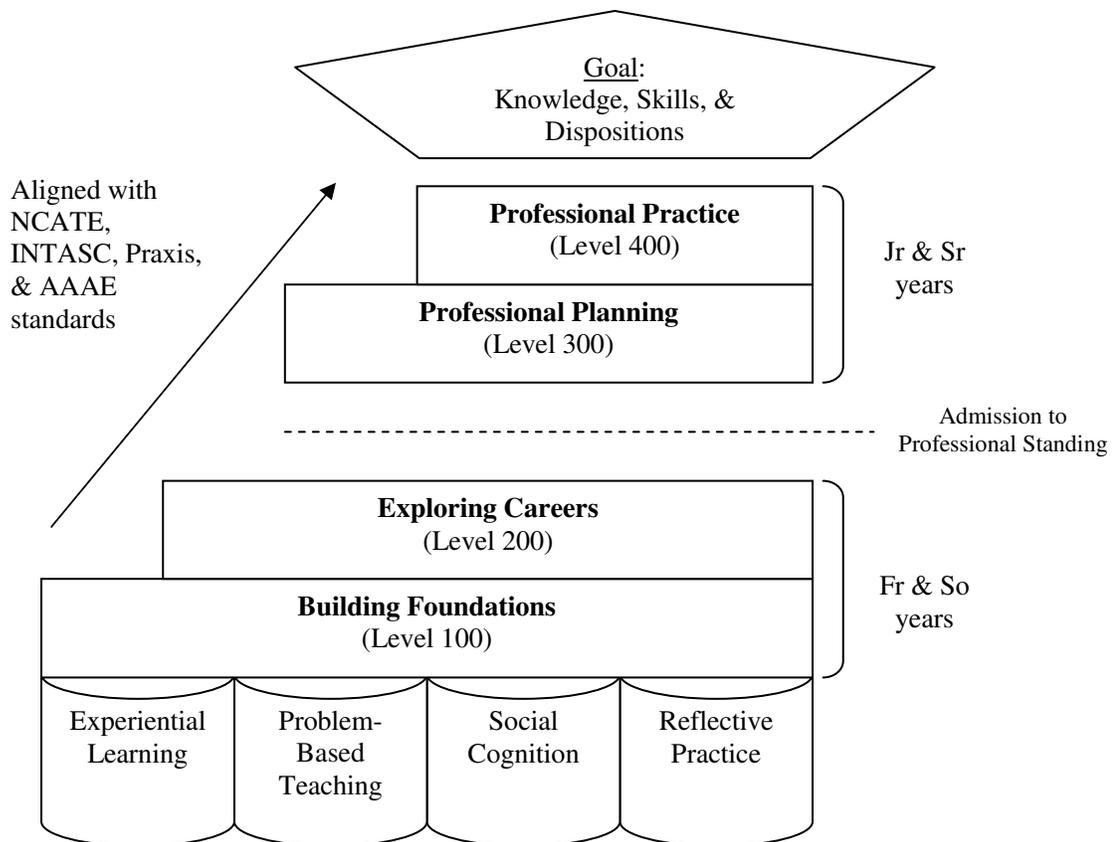
Objective 4--The Scope, Structure, and Sequencing of Educative Experiences: Because mentoring and support are critical in developing teachers (Glickman, Gordon, & Ross-Gordon, 2001), our new model ensures that preservice teachers interact with the teacher education faculty every year of the sequence. Additionally the model is designed to engage preservice students in discovering and applying, annually, their technical, pedagogical, and professional knowledge through

experiential learning in real teaching contexts (Task Force on Field Experience Standards, 1999).

The characteristics of experiential learning (Dewey, 1938), defined as “hands-on, contextual, problem-solving, and project-based,” provided the framework in sequencing courses in our new model of teacher preparation in agricultural education. In expounding upon the foundation of experiential learning in our program, the planning, instruction, and assessment of our preservice teachers is now measured using Wehlage, Newmann, and Secada’s (1996) standards for worthwhile, significant, and meaningful intellectual accomplishments, also known as authentic achievement. Authentic achievement incorporates four foci: (a) higher order thinking, (b) deep knowledge, (c) substantive conversation, and (d) connections to the world beyond the classroom (Wehlage, Newmann, & Secada, 1996). We wove these foci into our assessment activities throughout the model.

Figure 1

A model for teacher preparation in agricultural education



The Model

A model (see Figure 1) for our preservice teacher preparation program emerged from our two-year initiative. The model is a 2 + 2, four-year undergraduate scope of experiences sequenced in four stages of preservice teacher development: (a) Building Foundations; (b) Exploring Careers; (c) Professional Planning; and (d) Professional Practice. The four stages of preservice teacher development emerged from the matrix of teacher education standards and Lancelot's characteristics of good teachers. Further, this sequence of career preparation (Glickman, Gordon, & Ross-Gordon, 2001) is grounded on Lancelot's (1944) philosophy that "real life is, for the most part, a succession of new situations to be met and problems to be solved" (p. 11).

The "building foundations" experience, based on Lancelot's (1944) stage of being interested in teaching and thinking about the problems teaching presents, focuses on peer-teaching activities and professional meetings or career development events with agricultural educators during the freshman year. The "exploring careers" experience, based on Lancelot's (1944) stage of developing a passionate desire to be superior educators, focuses on a 2-week placement in a formal educational setting such as a secondary school, and in a nonformal educational setting such as FFA leadership camp during the sophomore year. The building foundations, and exploring careers experiences, provide undergraduate students opportunities to evaluate their beliefs and intentions as prospective teachers. Moreover, undergraduate students apply, after their sophomore year, for admission to the teacher preparation program.

The "professional planning" experience, based on Lancelot's (1944) stage of seeking to understand the principles of teaching and learning and to develop better methods of teaching, is taught by a collaborative teaching and planning team (Newmann, King, & Secada, 1996) of teacher educators in a 17-credit block during spring term of the junior year. During the block, preservice teachers learn to conceptualize technical knowledge and to plan to teach it based on effective pedagogical knowledge. Further, our teacher education team models, coaches, and evaluates the preservice teachers through clinical learning experiences (Lynch, 1997) in urban, middle, and high schools. The "professional practice" experience, based on Lancelot's (1944) stage of continued perfection of teaching skills and the development of a genuine pleasure and satisfaction in teaching, is the student teaching experience that is facilitated by teacher educators and cooperating teachers during fall term of the senior year. All teacher educators and cooperating teachers are trained in the Praxis framework to mentor and assess the preservice teachers (Educational Testing Service, 2001; Lynch, 1997).

A capstone course is taught the term following the student teaching experience to synthesize the practice teaching experiences and to prepare the preservice teachers for entry into the teaching profession. The overall goals are to help preservice teachers enter the profession, make decisions based on a professional code of ethics,

and develop a program that integrates agriculture and education based on critical issues at the local, state, national, and international levels.

Conclusions

The foundations underpinning our career and technical teacher preparation program in agricultural education are grounded in experiential learning, problem-based teaching, social cognition, and reflective practice. Second, the goals of our teacher preparation program are philosophically sound. Third, our preservice teacher education program is aligned with NCATE, INTASC, Praxis, and AAAE teacher education standards; the collective goal being the development of qualified, competent, and caring teachers, who exhibit confidence in formal, nonformal, and diverse settings. Fourth, a new model reflecting the scope, structure, and sequencing of field experiences and learning opportunities emerged based on four stages of teacher development: building foundations, exploring careers, professional planning, and professional practice.

Recommendations

Our reform effort provides teacher educators with an example of a process for guiding you and your colleagues in identifying key steps to reforming career and technical teacher education programs. Our team of teacher educators was so enriched by this reform process that we recommend that all teacher education teams engage in examining programming efforts to identify foundations and goals; knowledge, skills, and dispositions of graduates; state and national standards; scope, structure and sequencing of field experiences; and key changes for successful implementation of a reformed career and technical teacher education program.

It has been my pleasure to serve as the President of AVERA. I look forward to a new year with a new name, ACTER, and a renewed vision for the future. Thank you for the opportunity to serve our profession.

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