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# A Case Study of the Effectiveness of a Teacher Education Program

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# **WHAT CONTITUTES AN EFFECTIVE TEACHER EDUCATION PROGRAM? A REVIEW OF THE LITERATURE**

## **Brief Abstract**

Colleges and universities have the ongoing challenge of assuring their programs of study provide the necessary components to generate well prepared teacher candidates. The creation and implementation of national and state level teaching standards provide a framework upon which teacher education departments can build their curriculum. However, it is the responsibility of higher education entities to interpret the standards and employ them in the creation and delivery of their programs. Within this process of analyzing and applying the standards, there is an opportunity for great variance in interpretation. Therefore, the onus falls on individual education departments to further identify, through empirical research, characteristics of effective education programs and subsequently build their curriculum on the foundation of these best practices.

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# **WHERE DOES RESPONSIBILITY BEGIN? DEVELOPING AN EFFECTIVE TEACHER EDUCATION PROGRAM**

## **Introduction**

A teacher's ability to touch the future is metaphorically woven through the very fabric of his or her being. Through modeling and direct instruction, teachers provide children the cognitive, social, emotional, and behavioral tools which enable them to become competent, caring, and contributing members of society. The lives that a teacher touches over the course of his or her career are many and the influence a teacher can have on his or her students is profound.

Just as children are dependent upon those who teach them; teachers are dependent upon those who train them. Based on this knowledge and understanding of the important function of educators, the preparation of teachers is of utmost importance to our society as a whole (Ambe, 2006; Bruning, 2006; Darling-Hammond, & Baratz-Snowden, 2005; Murphy, Delli, & Edwards, 2004; Wise & Leibrand, 2000).

Colleges and universities have the ongoing challenge of assuring their programs of study provide the necessary components to generate well prepared teacher candidates. The creation and implementation of national and state level teaching standards provide a framework upon which teacher education departments can build their curriculum. However, it is the responsibility of higher education entities to interpret the standards and employ them in the creation and delivery of their programs.

Within this process of analyzing and applying the standards, there is an opportunity for great variance in interpretation. Therefore, the onus falls on individual education departments to further identify, through empirical research, characteristics of effective education programs and

subsequently build their curriculum on the foundation of these best practices (Cochran-Smith, 2006; Comer & Maholmes, 1999; Dean, Lauer, & Urquhart, 2005; Scannell, n.d.).

### **Quality Program Components**

A review of the literature concerning quality teacher education programs indicates there is a core body of knowledge with which teacher candidates must be equipped to provide them with the instruments of effective teaching. A thorough investigation of the literature identifies thirteen components of effective teacher education programs. These thirteen components can be grouped under three broad categories of instruction, curriculum, and professionalism.

#### ***Instruction***

It is essential that teacher education programs help instill in candidates the need for and ability to see beyond one's own perspective (Darling-Hammond, 1999b). A teacher must be empathetic with the learner and understand how to provide the best learning environment for that student. Skills of classroom management, motivation and engagement, diverse learners, child growth and development, technology and assessment all work jointly to create a teacher who can connect with and be empathetic toward students. Developing teacher candidates' instructional capability can be viewed as one of the most important roles of universities in the preparation of teachers.

***Classroom Management.*** Providing instruction in classroom management skills which contribute to an academic atmosphere that assists in successful school experiences for students is another critical component in teacher education programs. Classroom management is one of the key factors that will assist teachers in creating a learning environment that will lead to higher order thinking and learning. Barbetta, Norona, and Bicard (2006), maintain that a classroom that

is in total chaos or lacks boundaries and order can prevent students from engaging in the learning process.

According to a study conducted by Karweit and Slavin (1981) a significant portion of each school day is lost to interruptions, disruptions, late starts and rough transitions. Beginning teachers must possess the skill of organizing a classroom which provides an orderly environment conducive to increasing academic engaged time and decreasing distractions. In a study conducted by Minor et al. (2002), pre-service teachers identified classroom and behavior management as one of seven categories of effective teaching. Although differences in preferences of behavior management styles appeared in the study, behavior management was second most important in a rating of characteristics of effective teachers.

***Motivation and Engagement.*** Another important skill that teacher education programs must strive to include in the curriculum is the importance of developing and maintaining motivation in students. “Research consistently shows that it is not the methodology employed but rather the teacher who creates an engaging and appropriate learning environment that translates into student learning” (Bruning, 2006, p. 1). Bored or disengaged students are much more likely to participate in behaviors detrimental to a productive learning environment.

As part of their schooling, teacher candidates should be exposed to a variety of motivational theories. Just as students differ in many ways, the catalysts for motivation differ among students; therefore, it is imperative that teacher candidates be aware of the various approaches and tactics used to motivate their students (Martin, 2006). Pre-service teachers need to understand the fundamentals of the nature of knowing, cognitive processing, metacognition and strategies to improve engagement of students.

Beginning teachers must be able to plan and provide a set of learning opportunities that offer access to crucial concepts and skills for all students. The first thing a teacher must do to design an effective classroom conducive to learning is create meaningful instruction that is engaging. Knowledge of different engagement strategies is an integral component to the content of any teacher education program. The best prepared teacher or most significant lesson is lost on students who are not naturally curious or have failed to be engaged through motivational approaches (Martin, 2006).

***Diverse Learners.*** The makeup of classrooms today is far different than the relatively homogenous mix of just a few decades ago (Milner, Flowers, Moore, Flowers, Flowers, 2003). Cultural and cognitive differences are evidenced in many diverse forms including race, ethnicity, socio-economic status, diverse learning needs, and even gender. Many education foundations and theory courses address the issue of diverse learners and provide insight into teaching techniques that can help address issues that might arise in that context.

According to Milner et al. (2003), many pre-service teachers have had insignificant interactions with children from diverse backgrounds, thus they are lacking in knowledge and understanding of diversity issues. Teacher education programs must train teacher candidates to acknowledge the cultural and social contexts with which students approach learning. With knowledge of those social contexts, if teacher candidates can customize the learning environments and tailor the learning experience then the likelihood of success for the student will increase.

Jacobs (2001) spoke about the importance of teacher preparation programs providing experiences that will help teacher candidates understand the importance of taking time to learn about children's cultural backgrounds and how to provide a meaningful learning experience for

each of them. Education programs must help teachers learn how to view the world from various perspectives, especially those perspectives that are quite different from their own. The ability to view learners through various lenses will provide knowledge that will aid in the development of techniques that can reach diverse learners.

***Developmentally Appropriate Strategies.*** Beginning teachers must have a firm grasp of child growth and development. Comer and Maholmes (1999) revealed that teacher candidates must have knowledge of how children grow and develop and be able to put that knowledge to use in creating experiences that make learning possible. Knowledge of how children grow, behave, socialize and think is directly correlated with how children learn. Without basic knowledge of human growth and development, a teacher could possibly be teaching at developmentally inappropriate levels.

Jacobs (2001) addressed the importance of primary teacher preparation programs being built upon Vygotsky's model of working with children through scaffolding and continued by stating that the scaffold begins in schools of education with a firm theoretical foundation providing a solid understanding of developmentally appropriate practices. Jacobs defined developmentally appropriate practices as the knowledge of principles of child development and appropriate expectations based on age and current levels of functioning. Student teachers must be taught how to look at each child as an individual and recognize the relevance of developmentally appropriate teaching strategies to ensure that their teaching is more meaningful and relevant for all students.

Schools of education must include as part of the curriculum opportunities for candidates to develop an understanding of the process of cognition and the various pathways of learning including such topics as multiple intelligences and preferred learning styles. It is imperative that

programs make efforts to ensure that all teacher candidates learn to teach students in meaningful ways resulting in high levels of performance.

***Technology.*** The role of technology in education is ever-expanding and becoming more integral to the teaching process. The teacher candidate's ability to use and incorporate technology within instructional strategies is an integral component of a good teacher education program. Wise and Leibrand (2000) claimed that many teacher education programs have found that the best way to teach how to utilize technology in the classroom is to incorporate its use into all the courses in the teacher education program including such practices as e-mail, electronic information searches and multimedia presentations.

Schools of education must prepare teachers who can efficiently integrate technology into instruction by modeling this integration. Teacher preparation instruction must guarantee that teachers not only know about the various types of technology that are available as tools in the teaching process, but also be taught the skills on how to use the technologies within the content. Jacobs (2001) emphasized the role of technology in permitting great communication as well as opening portals of access to information and resources that may be used to enhance instruction. The wide variety of technological materials available, with proper understanding of how and when it is best to utilize them, can add significantly to a teacher candidate's collection of tools to enhance instruction for all children.

### ***Curriculum***

Although there is an emphasis on the importance of field based experiences for teacher candidates, numerous studies have found positive relationships between education coursework and teacher performance in the classroom. Wise (1990) argued for the importance of teachers exploring different contexts of the profession, such as the history, philosophy, economics, and

the financing of education. Darling-Hammond et al. (2005) suggested that beginning teachers' initial knowledge of curriculum should include an understanding of: (a) different views of curriculum; (b) how to develop and carry out curricular plans that are coherent and have a high probability of success; and (c) how to make sound curricular decisions and address curricular issues that arise. Curriculum includes the following components: design, content, pedagogy and field based experiences.

**Design.** The knowledge of how to design curriculum is integral to the process of learning how to teach. Prospective teachers must learn how to select, develop, evaluate, and organize content in a manner that is presented in such a way as to encourage learning. It is essential for teacher candidates to have opportunities to gain knowledge of how to evaluate and integrate particular curriculum materials into instruction in ways that fulfill the teacher's goals, address the content under study, and are developmentally appropriate for the students. Shulman (2000) discussed the importance of what he refers to as "wisdom of practice" in developing teachers. Wisdom of practice refers to several effective teaching characteristics including understanding of the necessity of constant curriculum revisions.

Another attribute that teachers must develop is the understanding that the education process is not an inert one. Teaching changes from day and day and even from hour to hour. Darling-Hammond et al. (2005) discussed the importance of teacher candidates understanding that curriculum is not static, but is continuously changing, and how the decisions they, as teachers, make will ultimately affect the student and his or her learning outcomes.

**Content.** Coursework is an area of contention among teacher education program critics. There are many arguments that the coursework is heavy in theory and light on practical application (Darling-Hammond, Hudson, & Kirby, 1989), yet research on teacher education has

shown a positive connection between teachers' preparation in their subject matter and their performance and impact in the classroom (Fajet et al., 2005).

Wise and Leibrand (2000) confirmed that teacher candidates must be expected to show mastery of the content knowledge in their fields and to demonstrate that they can teach effectively. Therefore, teacher educators, in foundations and methods courses should focus teacher candidates' attention toward the content of the curriculum as well as the students themselves. Minor et al. (2002) also attested to the importance of sufficient knowledge of the content eventually to be taught by teacher candidates.

The ability to teach subject matter well requires several knowledge bases including deep understanding of the content itself, the process for learning this content, and the nature of student thinking, reasoning, understanding, and performance within a subject area. Teacher candidates' knowledge base of the subject matter content must be strong enough to allow them to present it in a manner that assists students in the accommodation or assimilation of the material.

***Pedagogy.*** Even teachers with exceptional understanding of the content can encounter difficulty with how to convey that information to their students. Teachers who are pedagogically well-prepared are better able to incorporate teaching strategies and respond to students' needs and unique learning styles which encourage higher order learning. Grossman (1989) argued that "...without formal systems for induction into teaching, learning is left largely to chance. Although much pedagogical knowledge has been characterized as common sense, knowledge is not hanging, ripe and fully formed, in the classroom, waiting to be plucked by inexperienced teachers" (p. 205).

Darling-Hammond, Wise, and Klein (1999) cited two studies of newly certified teachers that indicate the graduate's strongest recommendation for program improvement was for an

intense quantity of subject-specific teaching methods including pedagogy and information on child motivation, development, and cognition. In other words, teacher candidates want and need to know more than what they are to teach. Pre-service teachers want to be given ideas on the best ways to teach the curriculum. Teaching of methodologies often occurs through vicarious means. Jacobs (2001) affirmed that the kinds of curriculum and instructional techniques that are modeled in teacher education courses have great influence on what teacher candidates do when they have their own classrooms.

**Assessment.** Teacher candidates need to not only be able to teach the content but also to assess learning in a practical and useful manner. Teacher education curriculum tends to emphasize the importance of diversifying instruction for students yet spends minimal time or attention on the necessity of expanding assessment strategies. Just as students possess preferred learning styles, they also vary in the ways they can best demonstrate what they have learned. Education programs must train teacher candidates in a variety of assessment approaches so that they can evaluate their options and choose which technique or approach is best under each circumstance (Otero, 2006). Furthermore, teacher candidates need to have modeled for them authentic practices found within the teaching profession (Goos & Moni, 2001).

The ability to identify, create, and incorporate purposeful and varied assessments is another task that beginning teachers must learn (Bruning, 2006). Teacher candidates need to know how to construct, select, and use formal and informal assessment tools to show them what students know and can do. In addition to skills in utilizing different assessments, beginning teachers must be able to construct a variety of means for assessing students' knowledge by using various assessment strategies and tools such as observation, student conferences and interviews, written work, and discussions, as well as responses on tests and performance tasks. Teacher

candidates must develop skills on how to interpret and apply assessment results to improve upon content and/or their instructional techniques. Based on the assessment results, teacher candidates must learn how to give constructive feedback that guides further learning (Otero, 2006).

***Field Based Experiences.*** A study of graduates of teacher education programs indicated three major recommendations for program improvement: a) more observation time in a wider variety of schools with a wider variety of students and experienced teachers, b) more time actually teaching, and c) closer supervision with more constructive feedback (Darling-Hammond, Hudson, & Kirby, 1989). The component most often identified as characteristic of a good teacher education program is the need for early and numerous opportunities to practice teaching in field based experiences (Larson, 2005).

The National Commission on Teaching and America's Future (1996) indicated that many teacher education programs separate theory from application citing that in some places, "...teachers were taught to teach in lecture halls from texts and teachers who frequently had not themselves ever practiced what they were teaching" (p. 31). In addition, often students would complete their coursework before they began student teaching and there was seldom a connection made between what they were doing in their classrooms to what they had learned in their programs.

Model teacher education programs allow teachers to learn about teaching through practice by providing opportunities to participate in settings that create strong connections between theory and practice (Kent, 2005; Larson, 2005). Through clinical practice, teacher candidates are given the opportunity to reveal what they actually know and demonstrate what they can do (Wise & Leibrand, 2000).

## ***Professionalism***

Proof of professionalism in the field of education comes in many forms. Professionalism refers to the dispositions that a teacher must possess in order to be successful in the classroom. It encompasses the areas of collaboration, continuing professional development, and resources (Darling-Hammond, Wise, and Klein, 1999)

***Collaboration.*** Darling-Hammond (1999a) discussed how education reform not only addresses typical areas such as curriculum and instruction, diversity and assessment, but also how to work in a collegial manner with others. Teaching is not a career in which one can work in isolation. Interpersonal skills of communication and collaboration are integral components in the art of effective teaching. Teacher candidates must learn how to collaborate with other teachers, administrators, community support agencies, and families of students.

First, teacher candidates must acquire social skills in order to establish and maintain working relationships with their co-workers. Collaboration with fellow teachers and other educational professionals serves as an opportunity to share knowledge and suggestions as well as glean ideas from seasoned practitioners on best practices. Teacher education can provide opportunities for pre-service teachers to understand what it means and what it feels like to be members of a group that shares common beliefs, goals and practices.

Collaboration with families is imperative to the success of students. Comer and Maholmes (1999) specified the importance of building skills in teacher candidates to help increase and improve parental involvement. Berry (2005) described the ability to communicate with parents among many qualities of good teachers as outlined by the public. Parents, by nature, are the most knowledgeable of the preferences and practices of their children, thus they

have much useful information to offer and should be viewed as partners in the educational process. Therefore, in addition to the opportunity to experience group membership, teacher education programs must provide teacher candidates with suggestions and techniques on how to work effectively with parents and to consider themselves members of a team working to provide a rewarding educational experience for the child.

***Continuing Professional Growth.*** In addition, beginning teachers must learn skills that will allow them to apply what they are learning, analyze what happens, and adjust their teaching methodology accordingly. Pre-service teachers need to engage in inquiry and reflection about learning, teaching, and curriculum (Bruning, 2006).

Jacobs (2001) suggested that teacher preparation programs should strive to create good decision makers and to do that, teacher candidates must be given time to reflect on their experiences and how to put the knowledge they have acquired to use. Teacher candidates need to be taught how to analyze and reflect on their practice, to assess the effects of their teaching, and to refine and improve their instruction. Teacher education candidates must be taught how to set clear goals and develop a sense of purpose so they can make sensible, consistent decisions about what to teach, when, and how.

***Resources.*** Another area of professional growth is knowledge of available resources. Teacher candidates need to develop the skills of identifying useful resources and how to put those resources to use in their own classrooms (Bruning, 2006). Teacher education programs must help teacher candidates identify the role of resource agencies and instill in the candidates the understanding of how those agencies are an integral part of the educational arena.

## Summary

For a teacher education program to be deemed adequate for the purpose of training and graduating effective teacher candidates, several factors must be in place. A review of the literature has identified three emphases that teacher education programs must promote to be considered quality education programs. The three areas include instruction, curriculum, and professionalism. Within each of the three categories of emphasis are more explicit areas of concentration.

Effective teacher education programs must provide sufficient coursework in teaching methods, balance theory and practice, and instill in candidates the importance of professional conduct. With these areas identified as components of quality teacher education programs, it then becomes the task of education departments to evaluate their programs and determine if they are meeting the needs of their teacher candidates. Teacher education programs must necessarily learn to self-assess. No single model of a program will meet the needs of all prospective teachers (Cochran-Smith, 2006); however, all teacher education programs must ensure that program completers have mastered the basics of instruction, curriculum, and professionalism before they are asked to practice independently.

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