

## **Transforming Education: Preparing Teachers for the 21<sup>st</sup> Century**

Ask anyone and everyone! All can readily identify teachers who had great impact on their lives, teachers who significantly influenced learning and elevated their students' opinions of themselves as learners. What made these teachers so effective? Was it a haphazard occurrence, a child's predisposition to learning, or something more? In the book *Teaching Transformed*, Tharp, Estrada, Dalton, & Yamauchi (2000) argue that nothing will have the desired affects on student learning unless it operates through instructional interactions between teacher and students at the classroom level. Cruickshank & Metcalf (1993) add "An undeniable assumption underlying the educational reform movement of the past 10 years is that the school achievement of American children can be enhanced through better teaching" (86). At day's end, it is the instructional activities employed by individual teachers in their respective classrooms where theories and their intended results are realized or rendered powerless. Teachers are potentially the classroom's greatest resource, as well as its greatest weakness (Clark, 2009).

### **Effective Teachers**

Reflective, highly-efficacious teachers have strong teaching identities. They also significantly and positively impact student learning. Effective teachers possess defining characteristics; they tend to persist with struggling students, provide more time focused on academic activities, keep students on task, and establish higher goals and expectations (Ashton & Webb, 1986; Ashton, Webb, & Doda, 1983; Gibson & Dembo, 1984). These same teachers initiate less special education referrals and work diligently to meet the needs of their special education students. Highly efficacious teachers develop students who are also highly efficacious; they believe all students are teachable (Ashton & Webb, 1986; Bandura, 1997;

Henson, 2002; Midgley, Kaplan, & Middleton, 2001; Soodak & Podell, 1993). Their classroom atmospheres are less critical with a more humanistic orientation toward discipline, where students are given a voice in decision-making (Allinder, 1995; Colodarci, 1992; DeForest & Hughes, 1992; Evans & Tribble, 1986; Gibson & Dembo, 1984; Viel-Ruma, Houchins, Jolivette, & Benson, 2010; Ware & Kitsantas, 2007; Woolfolk & Hoy, 1990). Intrinsic rewards and student autonomy are valued and supported, resulting in higher motivation and enthusiasm for learning (Anderson, Greene, & Loewen, 1994; Ashton & Webb, 1986; Ashton, Webb, & Doda, 1983; Woolfolk & Hoy, 1990). In addition, highly effective teachers implement valuable and consistent parental involvement where parental-consultation is more likely to occur (Bandura, 1997; DeForest & Hughes, 1992; Hoover-Dempsey, Bassler, & Brissie, 1987). Essentially, reflective, highly efficacious teachers demonstrate distinct characteristics of effort and perseverance as they develop environments and communities for learning (Bandura, 1993, 1997).

### **Preparing for 21<sup>st</sup> Century Teaching Demands**

Teacher education programs should educate the next generation of teachers to be prepared to face any professional challenge waiting for them (Smith & Sela, 2005). Research identifies instructional practices that support the development of reflective, efficacious educators with strong teaching identities. In spite of this, the practice of lecturing remains the most prevalent form of instruction (Bruner, 1997). Development of teacher candidates who are knowledgeable and effective requires universities to make adjustments in existing teacher-preparation course work to accommodate research-supported effective practices. With the limited time and increased pressure on teacher education programs to develop efficacious,

highly-qualified preservice teachers, universities should know what best prepares them to become such an educator (Haverback, 2007).

Teacher education programs need to acknowledge that preservice teachers enter coursework with well-established traditional views of education (Yost, Sentner, & Forlenza-Bailey, 2000). Unfortunately, these university programs frequently reinforce traditional lecture by exposing preservice teachers to K-12 school settings before developing their reflective attitudes. Too often, preservice educators never lose preconceptions formed during their K-12 education experiences. In many cases, these beliefs are actually strengthened and endorsed by the status quo existing in schools today. Mismatches exist between the university and school's views of the student-teaching role and unfortunately, the exposure to the schools' prevalent, traditional forms of instruction potentially undermines the theoretical aspects of education being taught in teacher preparation programs (Hoffman & Pearson, 2004; Smith & Sela, 2005; Walkington, 2005). Essentially, teachers will teach the way they were taught; therefore, a major goal of preservice education programs should be to develop critically-thinking teacher candidates who can reflectively challenge the status quo.

### **Training versus Teacher Development**

According to the Organisation (sic) for Economic Cooperation and Development (2005) report, "Teachers are now expected to have much broader roles, taking into account the individual development of children and young people, the management of learning processes in the classroom, the development of the entire school as a 'learning community' and connections with the local community and the wider world" (p. 3). Teachers who can meet this challenge must have more abilities and resources than training in a set of skills. They must be educated

within a broader vision of teaching and learning; one that subsumes training of skills within a professional way of knowing and doing (Hoffman & Pearson, 2000). It is impossible to equip teacher candidates for every situation, so rather than design education focused on prescribed skills alone, teacher education programs must equip teacher candidates with tools that enable analysis and problem-solving abilities in any situation. Preservice teachers must be educated, not just trained, to be knowledgeable of theory and intentional in practice.

Hoffman & Pearson (2000) articulate a clear distinction between training and teaching of preservice teachers. To date, most research and teacher education programs have focused on training its teacher candidates to become proficient in teaching their students to do something efficiently and fluently. In contrast, teacher development encourages preservice teachers to embrace the notion that effective teaching practices are designed to “promote personal control over and responsibility for learning within those who are taught” (Hoffman & Pearson, 2000, p. 32). Teacher education programs should situate skills training within an overarching vision of teaching and teacher preparation by developing empowered teachers who are in control of their thinking and actions; teachers who take ownership of their professional development and cultivate changes required for student learning to occur.

The following is a discussion of research-based principles that support development of influential, highly-efficacious teachers. Five fundamental principles are identified and examined. To divide these into separate categories is difficult as each is intertwined with the others; they actually build upon one another.

***Principle 1: Learning is socially constructed.*** Plato argued that dialogue is the highest form of teaching (Yost, Sentner, & Forlenza-Bailey, 2000). Vygotsky believed learning is a

social and cultural process. It occurs through collaboration with a more expert other by problem-solving within the Zone of Proximal Development (Vygotsky, 1978). As knowledge is socially-constructed, the learner is exposed to specialized ways of thinking and discipline-specific vocabulary, which transforms thinking. Walkington (2005) explains that changes in language indicate changes in thinking; language and vocabulary shape thinking. Preservice teachers must be given opportunity to explore and “try on” specialized language in challenging learning tasks if thinking is to be transformed (Gee, 2004).

Teacher education programs should shift from one of transmitting knowledge to transforming knowledge through dialogue. By creating learning tension and uncertainty that encourages preservice teachers to focus on the many dimensions of teaching tasks, they are in position to subsequently make more informed choices from a variety of options (Yost, Sentner, & Forlenza-Bailey, 2000). Social constructivism promotes exploration and interaction with others, which can potentially change existing cognitive structures (Yost, Sentner, & Forlenza-Bailey, 2000). Preservice teachers bring beliefs to the learning experience that, in some cases, need to be reconstructed or completely changed. In the process of socially constructing meaningful knowledge, preservice teachers’ existing beliefs are confronted and challenged. One role of teacher educators is to facilitate discourse designed to position teacher candidates to become cognizant of and acknowledge their beliefs. Instructional conversations allow preservice teachers to be more aware of beliefs they share with others, as well as recognize how each is unique. Subsequently, through educational experiences, collaborative problem-solving and supervised discussions, cognitive change can occur. Preservice teachers who participate in learning, community-based discussions understand concepts more deeply and take ownership of

knowledge (Fang & Ashley, 2004). Ideas that promote learning are explored and challenged as preservice teachers engage in “reasoning talk” with peers regarding theories and instructional practices (Williams & Watson, 2004). Interactions with faculty and peers are among the most valuable components of teacher preparation programs. They position preservice teachers into the mindset of a professional; helping them mature together as they listen to each other’s expressed beliefs (Fang & Ashley, 2004). For each of the following principles to be effective, they should be situated within environments where knowledge is socially constructed.

***Principle 2: Knowledge is best learned within a coherent, integrated curriculum.***

Knowledge with regard to teaching has been divided into three widely-accepted categories (Cochran-Smith & Lytle, 1999). Knowledge-for-practice embraces the traditional form of education where teacher candidates are told the information they will need to be effective. Knowledge-in-practice is where preservice teachers discover the knowledge they need as they reflect upon and analyze their own practice through some form of collaboration. Knowledge-of-practice requires teacher candidates to learn in community settings where they construct knowledge through deliberate inquiry focused on both personal experiences and formal, professional knowledge. Knowledge-of-practice is the focus of the following discussion.

Knowledge constructed through collaborative, deliberate inquiry is truly professional knowledge; it will sustain teachers through the demands of daily practice (Hoffman & Pearson, 2000). Knowledge of this nature must be integrated and cohesive if preservice teachers are to construct deep, connected professional knowledge of practice (Loughran, 2002; Smith & Sela, 2005). In a study conducted by Fang and Ashley (2004), teacher candidates participating in field-based reading blocks scored higher in several teacher skills and competencies, as compared

with those participating in traditionally-structured teacher preparation programs. They also developed a broad, conceptual view for how teachers assist struggling readers, in addition to learning concrete strategies for helping those readers. When interviewed, these teacher candidates understood, firsthand, the importance of integrating curriculum for their future students because of how effective this practice was for their learning personally. Preservice teachers must have opportunity to link what they know to new learning in order to reconstruct and transform knowledge (Smith & Sela, 2005; Walkington, 2005).

Learning should be integrated and situated within field-based experiences where real problems encountered provide occasion for teacher candidates to develop their own knowledge as they shift toward an inquiry-oriented stance (Castle, Fox, & O'Hanlan Souder, 2006; Loughran, 2002). This enables teacher candidates not only to integrate standards, but develop a deep understanding of teaching and the ability to address the complex problems encountered in real teaching situations. This underscores the importance for building connectivity between universities and schools so that constructed knowledge of theory and practice is cohesive and intertwined.

***Principle 3: Learning opportunities should provide theory application and mentoring assistance.***

Learning is both social and cultural. Learning begins by observing an expert and occurs in concert with more knowledgeable others providing assistance as needed (Vygotsky, 1978). Novices can passively observe and learn nothing; however, given the same context, they can gain a great deal when an expert facilitates dialogue in order to discuss and assist in professional ways of thinking for what they are observing (Gee, 2004).

Traditionally, teacher candidates have been supervised with the intent of being molded to fit a specific school environment (Walkington, 2005). A shift toward a mentor/coaching role where the preservice teacher is enculturated into the classroom would provide modeling and rationale for existing instructional practices, as well as opportunity for discussions and debriefings. This, once again, would provide opportunity for preservice teachers' perceptions and beliefs to be challenged. Through this collaborative, mentoring approach, preservice teachers are empowered to take risks by offering suggestions and explanations, which contributes to construction of knowledge with the mentorship of an expert (Gee, 2004).

Also, findings from a study conducted by Castle, Fox, and O'Hanlan Souder (2006) suggests that greater amounts of supervision and increased opportunities to discuss and reflect with many professionals on a consistent basis result in a higher degree of teacher quality in beginning teachers. Field-based experiences designed to integrate theory and practice through interactions with experts gives preservice teachers a degree of freedom to teach from their increasing knowledge base and also opportunity to critically examine theoretically-based content to determine its effect on their students' learning (Fang & Ashley, 2004; Hollingsworth, 1988).

***Principle 4: Opportunities must be provided to develop reflective thinking and practice.***

According to Dewey, "Reflection is an active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds supporting it and future conclusions to which it tends" (Dewey, 1933, p. 6). Preservice teachers must be taught to critically think for themselves and to be aware of and understand reflective thought processes if they are to teach their students to think (Giovannelli, 2003). Reflection is a challenging, critical



assessment of one's teaching practice as a means for developing a personal teaching craft. A learning-centered model for education requires teachers to take on the view that effective teaching involves reflective practice (Smith and Sela, 2005). Reflection creates an orientation toward inquiry and a shift toward viewing scholarship to teach as a life-long professional learning venture.

Reflective practice is vital if preservice teachers are to examine their personal teaching beliefs, think about their educational experiences, and within specific contexts, determine courses of action to take for a desired learning outcome (Smith and Sela, 2005). Through reflection, teacher candidates are able to develop genuine wisdom-in-practice. Knowledge gained as a result of such reflection is both recognizable and articulative (Loughran, 2002). Hoffman and Pearson (2000) assert that teacher beliefs precede change in practice.

The good news is research provides evidence that suggests reflection can be taught. More reflective student-teachers utilize more effective instructional practices (Giovanelli's, 2003). Preservice teachers must be given opportunities to examine their pre-existing beliefs against the philosophies and theories being taught, so that thinking can be transformed (Yost, Sentner, & Forlenza-Bailey, 2000). It is when preservice teachers are constructing meaning, reflective practice occurs. This is when new perspectives are conceived and assumptions usually taken for granted are challenged (Loughran, 2002).

A study conducted by Bain, Mills, Ballantyne, and Packer (2002) found that feedback focused on reflection itself was more effective for improving reflective abilities than feedback addressing teaching issues. Another study conducted by Williams and Watson (2004) found that teacher candidates actually form their reflective thoughts as they write. Requiring that teacher

candidates use journals to reflect on their lessons contributes to their reflective abilities.

Feedback designed to challenge the student-teacher and offer support for consideration of alternative perspectives provides the most effective strategy for encouraging the use of journal writing as a tool for reflective thinking. Also, Williams and Watson (2004) found that the use of delayed debriefings following student-teaching performance observations facilitated deeper reflection on the part of teacher candidates.

***Principle 5: Opportunities must be provided to develop a professional teaching identity.***

Educators who have developed strong teaching identities are confident, able to make critical decisions and also positioned for life-long learning. Shaping a personal identity for teaching involves taking on specialized vocabulary and ways of thinking used in the discourses of a professional educator. Opportunities for teacher candidates to emulate what expert teachers have modeled by applying theory into practice and developing skills through simulations and real-life teaching achieve this end. These instructional activities provide the requisite context for preservice teachers to explore and use specialized language embedded in the professional discourses of teaching that are connected to educator identities (Gee, 2004). Subsequently, teacher candidates can then begin to form their own, unique teacher identity, one that will continue to evolve throughout their career as a professional educator. This can only occur if preservice teachers' beliefs are challenged through interactions with an expert in the context of real teaching. As Gee (2004) describes, preservice teachers are learning how to act and think appropriately as a teacher. He further explains that learning is not only about skills, it includes internalizing the appropriate actions embodied in interactions with the real world that positions a

preservice educator to be recognized as a teacher; they are enacting the right identity for the context of teaching, with all of its demanding contexts.

Walkington (2005) makes a distinction between teaching roles and teaching identities. Teaching roles refer to performance of skills as a teacher, whereas teaching identities project the idea of actually being a teacher, including those corresponding feelings involved. Identities are based on the core beliefs a teacher candidate possesses with regard to being a teacher, beliefs that are continually evolving and being modified. It is possible to become a skillful, expert practitioner doing the job of teaching, yet lack scholarly attitudes and critical ways of thinking. Professional teaching involves a scholarly element, one that points toward a teaching identity including specialized vocabulary and professional ways of thinking. This level of teacher identity promotes development of life-long learners who are adaptable to changing educational demands and confident in abilities to successfully address those demands (Smith & Sela, 2005; Walkington, 2005). Teacher candidates with strong teaching identities demonstrate greater identification with both the classroom and school setting. They also possess greater ownership of the classroom, as well as their personal learning; they feel a sense of belonging to the school's culture (Castle, Fox, & O'Hanlan Souder, 2006).

Walkington (2005) stresses that mentoring relationships between university supervisors and student teachers assist in the shaping of a teacher identity, providing a foundation for responsible professionalism, as contrasted with supervisor roles focused on performance. Reflection plays a key role in this development, as it is the process for developing personal philosophies of teaching that contributes to the shaping and emergence of teaching identities.

Teacher educators must persistently seek to encourage and support the formation of teacher identity, empowering teacher candidates to challenge existing beliefs and build upon these reconstructed ideas and perceptions (Walkington, 2005). Without such practices, teacher candidates will potentially perpetuate the status quo supported by traditional attitudes and behaviors of many supervising teachers. Developing mentoring relationships with actual school staff and fellow teachers is one of the most important components for developing a sense of professionalism and identity (Castle, Fox, & O'Hanlan Souder, 2006). Mentoring, rather than supervision, promotes strong relationships that foster the development of professional teaching identities.

### **Implications for Practice**

For too long research and theory has been disconnected from practice. Teaching preservice educators to be effective professional educators should incorporate modeling and utilize methods for integration of theory and practices with the hope they will be assimilated into their future teaching practices. Regardless, the principles remain the same; all learning should be socially constructed. In the classroom this means providing educational settings where teacher candidates converse with each other and with the professor during authentic, problem-solving tasks, whether it be constructing a theory for reading or designing a comprehensive lesson plan for an upcoming teaching practicum. "Lecture" should be in the form of mini-lessons, short and to the point, providing "just-in-time" to assistance for teacher candidates within this problem-solving context.

From the beginning of their teacher preparation, preservice teachers should be immersed in real-world teaching experiences at partnering school sites. Their observations and experiences

are supported by the sustained assistance of a professor or cooperating teacher who is operating in the role of a mentor. Mentors are facilitating discourse and contexts for thinking and discussing within a variety of joint-instructional activities. Rather than passively watching classroom instruction, the mentor provides questions to guide teacher candidates' observations. Observations are followed by a debriefing where preservice teachers and mentors can reflectively discuss questions and observations in a non-judgmental fashion. Throughout, the mentor guides the interactions so that pre-existing beliefs and perceptions are challenged in light of the new knowledge being constructed together. Mentors observe as preservice teachers begin applying theories learned into actual teaching practice. All instructional approximations are followed by a debriefing where teacher candidates can safely, yet reflectively, question their practices and discuss their teaching, always through the lens of theories being learned. Thus, theory and practice are intertwined.

Curriculum should be cohesive, in the form of block courses, not isolated, disconnected subjects. If possible, instruction should be conducted at the school site, where the university mentor facilitates discussion of course texts and articles. Field-based experiences are the context for discussions. The professor should consistently focus discussion on inquiry-based synthesizing of new knowledge and theory gained from field-based observations and teaching practice. This will give cause to challenge current thinking through reflection in order to internalize professional, educational ways for thinking. As with all learning contexts, these discussions should engage scholarly thinking, using specialized teaching language, in order to continually challenge and re-think perceptions and pre-existing beliefs for the purpose of developing a professional teaching identity. As teaching identities evolve, teacher candidates

mature into confident, life-long learners with strong efficacy for addressing multiple teaching demands, teachers who are equipped to make and execute wise decisions that impact both student learning and school practices.

In sum, teacher preparation programs should immerse preservice teachers in environments where real-teaching problems are encountered. Assistance is provided by a mentor through collaboration; essentially an apprenticeship. Content is integrated and cohesive; combining theory and practice. Reflection is imperative as preservice teachers challenge and examine existing beliefs in light of newly constructed knowledge. Through this process professional teacher identities are developed. This will position preservice teachers to make a difference as they develop into confident, professional teachers who will challenge the traditional status quo of teaching.

### **Concluding Remarks**

There is a growing body of research identifying effective instructional methods for teaching preservice educators to be reflective, knowledgeable, and confident educators. Research also suggests that teachers who embody these teaching qualities have greater effect on student learning and literacy development (Castle, Fox, & O'Hanlan Souder, 2006; Hoffman & Pearson, 2000). Though the research is clear, too often teacher preparation programs have not been impacted by its findings. It is not enough for preservice teachers to learn how to use effective teaching practices. They must also have exposure to scholarly attitudes and professional habits of thinking, which will facilitate a more thoughtful application of instructional practice (Yost, Sentner & Forlenza-Bailey, 2000). Like all learners, preservice teachers require performance assistance throughout their education if they are to make a shift in

thinking, which will ultimately impact their approaches to classroom instruction (Gallimore & Tharp, 2000).

If the desired outcome for K-12 schooling is access for all students to a literate life with developed identities, strong efficacy, high-level cognitive processes and problem-solving skills, then traditional teaching will not suffice. Training focused on teaching skills falls far short of this goal. Improved teacher preparation programs are for the greater good of the students that preservice teachers will eventually teach. The stakes are high and preparation time is limited. Preservice teachers must have access to exemplary teaching in challenging, collaborative learning communities where beliefs are explored and challenged (Yost, Sentner & Forlenza-Bailey, 2000). As Hoffman and Pearson (2000) suggest, a teaching force that is well prepared to face the teaching demands and challenges of the 21<sup>st</sup> century must be knowledgeable, considerate, and reflective. Teachers will teach the way they were taught.

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