Proposal for Data-Based Decision Making in Pre-Service Teacher Training:

Equipping the Future English Language Arts Teacher

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Abstract

How can pre-service training programs provide educative experiences for novice teachers that improve their mastery of key competencies for their professional lives? Research supports the effectiveness of microteaching as a pedagogical method for promoting skill mastery and self-reflection in the novice teacher (Lee & Wu, 2006; Abdurrahman, 2010). The following proposal creates a plan for the implementation of microteaching in a pre-service English Language Arts education program to promote competency in three variables that affect student achievement in the K-12 classroom: feedback, meta-cognitive strategies, and self-verbalization/self-questioning. Through microteaching, pre-service teachers will practice incorporating these three variables in their instructional design. The proposal also includes plans for conducting research to determine how microteaching impacts skill development related to the variables. Selection of microteaching as the instructional method and selection of feedback, meta-cognitive strategies, and self-verbalization/self-questioning as the three variables are discussed first in the proposal, followed by a plan of implementation.

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Data collected by the U.S. Department of Education revealed that the percentage of teachers leaving America's private and public schools continued to rise each academic year (Keigher, 2010). Martinez, Frick, Kim, and Fried (2010) noted that of those leaving the profession, , "nearly half of the teaching workforce of the United States is expected to retire this decade" (p. 276). Taking retirement into account alongside data from the National Center of Education Statistics—which indicated that nearly 24% of America's teachers left the profession in 2008-09 (Keigher, 2010)—has led some to claim the United States is experiencing a national teacher shortage (Ingersoll, 2001).

In an era with increasing teacher turnover in the field of education, university-based teacher-education programs will play a key role in providing highly qualified teachers to meet the demands of projected shortages. However, as Levine (2011) noted, these teacher-education programs are being broadly criticized for remaining out of touch with current classroom practice, permitting weak admissions and graduation standards, and employing faculty long removed from K-12 schools. "A majority of the nation's principals say universities are not producing the teachers they need" (Levine, 2011, A33). New teachers themselves are aware of the shortcomings of their training programs. As Fisher and Burrell (2011) indicated "new teachers are being hired and face problems that they are not taught to handle in school."

Context and Variable Selection

There are two important factors in developing the knowledge and skills that should be address in pre-service teacher education—what attributes should be addressed and how should they be developed. It is proposed that the focus of teacher pre-service education should include

the variables of feedback, meta-cognitive strategies, and self-verbalization/self-questioning and that development of these should be addressed through microteaching.

Development of Critical Teacher Skills

Hattie (2009) reviewed over 800 meta-analyses to synthesize 138 variables that impact student achievement. Huitt, Huitt, Monetti, and Hummel (2009) reviewed Hattie's work to create a systems-based framework that organizes the variables into a small number of categories and limits them to those with an effect size of 0.40 or greater. Among the 66 variables identified by Huitt, et al., feedback, meta-cognitive strategies, and self-verbalization/self-questioning intersect with common instructional practices in the middle and high school English Language Arts (ELA) classroom. Thus, they become important target skills for pre-service teachers in this content area to master before leaving a teacher training program.

Analysis of ELA standards in the *Common Core* document revealed that nearly 40% of the teaching objectives for an ELA teacher relate to writing and language use (National Governors, 2010). With writing instruction playing a prominent role in ELA instruction, how should teachers work towards improving student achievement? Research indicated that efficacious writing instruction incorporates feedback (Nelson & Schunn, 2009) and direct instruction in self-regulated strategy development (SRSD) (Harris, Santangelo, & Graham, 2008). Both meta-cognition and self-verbalization/self-questioning are components in the SRSD process as growing writers develop knowledge about writing and work towards mastery of the writing process.

In addition to their intersection with ELA instructional objectives, feedback, meta-cognition and self-verbalization/self-questioning also fall into various subcategories in Huitt et al.'s (2009) systems-based framework. Feedback is categorized as a teaching event, meta-

cognitive strategies as a teaching strategy, and self-verbalization/self-questioning as a student behavior. Assigning variables in different subcategories is an intentional part of the proposal design, for Huitt, et al., posited that if school improvement is approached through a systems-based framework, then "small, but important, changes in a number of related factors can result in a large change in school functioning and performance" (p. 10), particularly if multiple modifications are made simultaneously.

Why Microteaching?

In the 1960's, Dwight Allen and his colleagues from the Stanford University created microteaching as a training program for improving the verbal and nonverbal aspects of teachers' delivery and performance (Gavriliovic, Ostojic, Sambunjak, Kirschfink, Steiner, & Stritmatter, 2009). Since then, the microteaching has been implemented as a learner-centered model to assist novice teachers in developing an array of skills in the pre-service context (Abdurrahman, 2010). According to Fisher and Burrel (2011), the aim of microteaching is to

> prepare beginning teachers for actual classroom teaching by strengthening their approach to teaching, identifying their personal strengths, assisting with developing empathic understanding of students as learners, enhancing the student teacher's teaching style, and improving the student teacher's ability to receive feedback (p. 90-91).

Abdurrahman highlighted other benefits of the pedagogy, including engendering self-confidence, receiving immediate feedback, targeting shortcomings, and viewing multiple examples of teaching competency.

What Does Microteaching Look Like? In Allen's original model in the 1960s, teachers engaged in three phases: teach, review and reflect, and re-teach (Gavriliovic et al., 2009). This basic pattern has been preserved, but others have added to it. For example, Fisher and Burrell

(2011) suggested that teachers plan instruction, teach in front of a small cohort of peers and instructors, receive feedback, re-plan, re-teach, and receive more feedback. Often, videotaping is involved so that both the practicing teacher and the cohort may easily review the performance. Gavrilovic et al. (2009) developed an even more precise format for the microteaching session: 1) the teacher presents a 10-minute instructional segment that is videotaped, 2) the supervisory team of 3-5 participants makes notes on the performance, 3) the teacher immediately views the videotape in another location to self-assess his/her performance, 4) the team discusses the performance, and 5) the teacher returns to present self-feedback on the lesson and to receive feedback from the team. This is essentially an instructivistic approach to teaching and learning (Huitt, Monetti, & Hummel, 2009). Lee and Wu (2006) added an asynchronous element to the pedagogy. Rather than sharing the teaching demonstration in live time with their cohorts, student teachers uploaded video of themselves to the Internet. The videos were archived in a computer-mediated communication system with software that allowed for peers and instructors to type comments about the demonstration, as well as teaching experts outside of the university classroom.

In this proposal, all three methods of microteaching advocated by Fisher and Burrell (2011), Gavrilovic, et al. (2009) and Lee and Wu (2006) will be utilized to help pre-service teachers develop their skills.

Plan for Implementing Microteaching and Tracking Data

Hattie and Timperley (2007) provided insight into the purpose of education: "A major aim of the educative process is to assist in identifying…gaps and to provide remediation in the form of alternative or other steps" (p. 102). In light of this, education is a type of intervention that attempts to close a gap, and examining data allows educators to determine whether their

interventions are closing the gap between what is hoped to be achieved and what is actually being achieved. Considering the disillusionment with the efficacy of university-based teacher-training programs that Levine (2011) noted—in tandem with the projected teacher shortage (Martinez, et al., 2010)—monitoring student progress in mastering teaching competencies is a paramount consideration of pre-service programs. Data collection and analysis allows for tracking the development of novice teachers in the final year of their programs. I have selected the last year because it typically includes two phases of development that might be monitored through microteaching: a semester of coursework in methods of teaching and a semester of practicum as a student teacher.

Developing Teaching Skills in Meta-Cognitive Strategies. During the ELA methods course, teachers will experience the microteaching process according to Gavrilovic, et al.'s (2009) and Fisher and Burell's (2011) formats. Students will prepare three lessons aimed at direct instruction of a meta-cogntive strategy related to writing skill development. Each lesson will be approximately 10 minutes in length and will be presented to classmates and the instructor at the beginning, middle, and end of the term. Students will work in cohorts of three to five participants. On presentation day, lessons will be videotaped and audience members will take notes to provide feedback, focusing on effective instruction of metacognition. Immediately after the demonstration, the presenter will view the video in a different location to self-assess performance while the cohort discusses their feedback. Finally, the presenter will return to share his or her perceptions of the performance and to receive feedback from the cohort. Following Fisher and Burrell's (2011) model, the teacher may decide to re-teach the same lesson at mid-term to refine pedagogy, or may opt to teach on a new topic related to metacognitive strategies in

writing. Gavrilovic, et al.'s (2009) sequence will continue to be followed at the mid-term and final week of the term.

As instructor of this course, I would monitor teacher progress as part of the cohort, offering feedback on skill development and mastery related to metacognitive instruction in writing strategies. Analysis of videotapes from the beginning, middle, and end will provide data of student progress. In addition, teacher candidates will write a self-assessment of skill development by reviewing all three videotapes the final week of the course. Lee and Wu (2006) noted the importance of acquiring skills in reflection during pre-service training. Providing a course requirement of self-assessment helps novice teachers to develop skills in order to "recognize the limitations of their personal assumptions, acknowledge other perspectives, consider the moral and ethical consequences of choices, and clarify the reasoning process involved in making and evaluating decisions" (Harrington & Hathaway, 1994, as cited in Lee & Wu, 2006, p. 370).

Developing Teaching Skills in Fostering Self-Verbalization/Self-Questioning. During the practicum experience, student teachers are dispersed in various school districts to complete their student teaching. Contact with peers and the instructor becomes less frequent due to significantly less time spent on campus in the classroom and more time spent in the field learning the daily professional duties of a teacher. Typically, students receive feedback on their teaching performance at the student teaching site a handful of times when the supervisor visits. However, Reid (2011) argued that this is not enough to allow the student teacher to study the practice of teaching to enable "acquisition of skill over time, with an instructor, and with direct teaching and coaching to improve their performance" (p. 305). Utilizing microteaching via web-based videos, as Lee and Wu (2006) implemented, provides the student teacher with asynchronous feedback

that is sustained throughout the practicum experience. In Lee and Wu's model, a computer-mediated, communication software enables the posting of video with a text feature where peers, instructors, and outside teaching experts might leave comments. I propose that student teachers be required to post video of themselves teaching at their practicum sites every two weeks and respond to videos of classmates weekly. Classmates who critique the videos will follow an assessment checklist, including notation of evidence of the student teacher implementing procedures that encourage self-verbalization/self-questioning among the high school learners. Furthermore, video documentation will capture whether learners are actually implementing the strategies during work time. A simple system of tallying observations related to this variable could track progress for how the student teacher develops this strategy in his or her teaching repertoire.

Developing Teaching Skill in Feedback on Writing. A large part of the job of an ELA teacher is offering feedback on writing, but as Hattie and Timperley (2007) noted, not all feedback is created equal. In their meta-analyses, across more than 7,000 studies, Hattie and Timperley discovered that the most effective forms of feedback "provide cues or reinforcement to learners; are in the form of video-, audio-, or computer-assisted instructional feedback; and/or relate to goals" (p.84). In particular, feedback is effective when it provides information about how to proceed, thus enhancing deeper learning. These facts about feedback become particularly relevant in the ELA classroom as teachers review students' written work and offer comments.

During the practicum experience, student teachers have the opportunity to practice offering feedback on high school writing samples, often for the very first time. Through software like Google Docs (docs.google.com), high school learners might submit their work to the student teacher for review. The student teacher would then use the comments tracking

feature to make notes on the draft, paying particular attention to feedback that addresses the process of writing, offers specific examples to reinforce effective techniques, and encourages the learner to connect revisions to their personal goals. Documents in electronic format and stored in Google Docs not only provides the high school learners with easy access to comments, but also enables the student teacher to share feedback examples with their university cohort to allow for another microteaching experience. Peers and the instructor might review examples of competency in offering feedback and offer suggestions for improvement. I propose that these feedback samples be collected at the beginning, middle, and end of the term to track student teacher progress in mastering this variable.

Conclusion

The strength of our nation's schools rests on the quality of our nation's teachers, and pre-service training programs will be increasingly scrutinized in coming days if teacher attrition continues at its present rates (Darling-Hammond & Sykes, 2003). Instructors of teacher education programs need a research-based understanding of student achievement in K-12 schools in order to design curricula that effectively develop competencies in novice teachers (Huitt, et al., 2009). By aligning student achievement variables relevant to a content area (such as English Language Arts)—with opportunities to rehearse teaching skills in a microteaching context—education programs create a learning environment that promotes mastery through repeated practice and reflection. Reid (2011) noted the criticality of practice and reflection in teacher development: not only do pre-service teachers become equipped for their first jobs, but they also become "prepared for the risk taking and effort that will allow them to try out new pedagogical and relational practices and see themselves as 'novices,' as learners, again and again" (p. 308).

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