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Editor: Leigh L. Butler
lbutler@odu.edu
Old Dominion University
Education Building Room 152
Norfolk, VA.23529
757-683-6448

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Enhancing Supervision with Video Blogging: A Model

Eric Grossman, Ed.D.
Emory and Henry College

Introduction

Just a few years ago digital technologies seemed to pose the age old problem in education of separating the haves from the have-nots. It was called the digital divide. We worried that computers would go only to wealthy schools and homes, further exacerbating the disparities in performance between students from differing socio-economic backgrounds.

As it turns out we were right to be concerned. The relevant educational technologies are internet social media. The disparities are not between social classes; however, they are between generations. Further, the students are in the generation of haves, while many teaching professionals are in the generation of have-nots. According to a recent report by the Pew Research Center, nearly all teens go online (95%), and two-thirds of them use social networking sites. Among those over fifty, 70%-80% go online, and only 10%-20% of those use social networking sites. (Jones & Fox, 2009)

Teens have embraced interactive online media in a way that has far outpaced adults. "The nature of conversation and communication is changing in a world in which young people are becoming very comfortable with expressing themselves through video and audio and mixing it together," said Mary Madden, a Pew senior research specialist and one of the report's authors. "That's a very different kind of expression. It's not as controlled. It's more chaotic. And that's difficult for adults to understand, how teens can navigate these spaces." (Bloom, 2008)

To date, the model for technology adoption among educators has been primarily about improving the delivery of instruction. For example, we have adopted the use of Powerpoint slides to illustrate our lectures. Some of us have learned to use the Smartboard to better manipulate words and images that we show to our students. Advanced users can

now post materials online for easy access by students. In the meantime, students sneak cell phones in to class and hold them below the desk, furiously thumbing text messages alerting others to meet in the restroom. At home they play World of Warcraft with other gamers across the globe. They assemble networks of friends on Facebook and follow each other day to day via short text updates. They upload pictures and videos of themselves, their friends, and their pets to You-Tube, where they also catch the latest item to "go viral." According to a 2007 Pew Research Center report:

> content creation by teenagers continues to grow, with 64% of online teenagers ages 12 to 17 engaging in at least one type of content creation, up from 57% of online teens in 2004. Girls continue to dominate most elements of content creation. Some 35% of all teen girls blog, compared with 20% of online boys, and 54% of wired girls post photos online compared with 40% of online boys. Boys, however, do dominate one area - posting of video content online. Online teen boys are nearly twice as likely as online girls (19% vs. 10%) to have posted a video online somewhere where someone else could see it. The survey found that content creation is not just about sharing creative output; it is also about participating in conversations fueled by that content. (Lenhart et al., 2007)

We have little choice but to change with the times. As supervisors and mentors for future teaching professionals, we are obligated to understand, embrace, and facilitate the responsible use of emergent social media.

Blogging for a constructivist field experience

In the spring of 2009, Emory & Henry College started a pilot video blog project for two student teachers. We asked them to use the blog in place of our traditional reflection journal. The students captured video of themselves as well as their students while engaged in classroom activities. They posted the videos to the blog where it was available for all of us to view and post responses. We believe this will serve as a model for our continued use of blogging as tool for supervision. What follows is a description of this model, beginning with a framework for understanding its conception.

The conceptual framework underpinning our goals for this project is constructivist – focused on the learning constructed by individuals. Constructivism, as developed from the ideas of Vygotsky (1978), Piaget (1928), and Bruner (1960), posits that learning is not transmitted, but created by learners as they construct their own mental models. Therefore, learning is best accomplished by engaging students in

constructing knowledge through acquiring, generating, analyzing, manipulating, and structuring information. (Alavi, 1994).

One extension of the constructivist model of learning is cognitive constructivism, which focuses on the cognitive aspects of learning, and posits that learning is a process which develops, tests, and refines mental models, and transfers new knowledge into long-term memory. (Shuell, 1986) An important implication of the cognitive constructivist model is the need for individualized instructional support and prompt feedback, since learners differ in terms of their learning style and prior knowledge.

Collaborative constructivism is also important to our conceptual framework, because it helps to make sense of the social aspects of learning. The collaborative learning model emphasizes sharing and interaction (Slavin, 1990). According to this model, learning emerges through shared understanding, and the construction of shared understanding through interaction with others. As suggested by Alavi, collaborative activities enhance learning by allowing individuals to exercise, verify, solidify, and improve their mental models through interacting with others and sharing their thoughts, ideas, and information (1994).

A constructivist framework provides clear rationales and expectations for the pedagogical use of video blogs. Students who engaged in video blogging to reflect on learning should acquire, generate, analyze, manipulate, and structure video clips with audio and/or text commentary for posting to the blog. Feedback from the supervisor should be individualized and prompt. Students should share posts among a community of learners for broader discussion and understanding. Given the model, and provided these expectations are met, we predict improved learning outcomes for our student teachers.

Although the opportunities for learning are very broadly construed here, we would like to narrow our analysis of the potential effectiveness of video blogging by focusing on how it can help with the omnipresent issue of classroom diversity. We suggest five ways that video blogging might enhance the supervision of student teachers:

- Respect individual differences among student teachers
- Document student teacher strategies to deal with diversity in the classroom
- Capture reflection by student-teachers targeted at specialized or idiosyncratic problems
- Model use of social media
- Allow distant placements

Respect individual differences among student teachers

Traditionally our student teachers have been required to reflect bi-weekly in a journal. In the past few years we have moved to allow students to post written reflections online. Emory & Henry adopted ANGEL as its learning management system beginning in 2004. The notebook that had been kept in a 3-ring binder was moved to an electronic form. This allowed for more immediate feedback by supervisors, but was otherwise simply a digitized medium for the same process.

Although strong literacy skills are requisite for teaching professionals, student teachers vary in their ability to express themselves through writing. Reflection is exceptionally important to the process of improving as a teacher, and as noted above, can be integral to a constructivist approach to learning. As supervisors we should aspire to create forums that facilitate the most authentic and meaningful reflection possible. For some students, writing may constrain reflection. Video adds the potential to include still and moving images as well as audio. Like writing, it allows for self-editing and self-presentation in ways that encourage introspection and reflection. Where creating a mental image and conveying an emotional state may be difficult for some to do with words, a video clip may open up that possibility.

Video blogging, then, honors the individual differences among our student teachers. Bloggers have a wide, and expanding, range of options for expressing themselves digitally. They may continue to use text, of course, while adding still images, video, narration, music, and/or ambient sound.

Document student teacher strategies to deal with diversity in the classroom

One of the biggest and most difficult tasks we give our student teachers is to strive toward recognizing and teaching to the diversity in their classrooms. To assess their progress toward this goal, and to encourage continued growth in this area, we have several tools. We can look at lesson plans for specific accommodations for differentiation. We can review written reflections documenting such efforts. We can also periodically observe class and judge for ourselves how fully engaged are all learners in the classroom. Each of these has its limits, of course. It is hard for a lesson plan to capture the subtle ways that teachers have to deal with diversity – especially for example in classroom discussions. Written reflections must by nature be highly selective, and may be hit or miss in capturing the effort to deal with diversity. They are also, frankly, the story that student teachers have chosen to share. An in-person observation can be very potent, but leaves open the question of the influence of the observer on classroom behavior.

A video blog doesn't ameliorate these concerns, but it does add another tool to the box for communicating valuable information about a student teacher's effort toward dealing with diversity. An appropriate assignment for a blog entry would be to document several strategies the teacher is working on in this area. The mentor teacher can be recruited to capture the student teacher on video while employing these strategies. Short clips can be edited over the course of several weeks to provide a more accurate, and empirical, view of progress.

Capture reflection by student-teachers who are responding to individual students or small groups of students

We require that our student teachers differentiate instruction for diverse learners, and many teach in inclusive classes that by definition include learners with identified learning disabilities. According to Tomlinson & Kalbfleisch (1998) differentiated classrooms are "responsive to students' varying readiness levels, varying interests, and varying learning profiles" (p. 54). Routine observations and reflections are useful for helping students navigate this challenge. A video blog post, however, may serve to shine a light more quickly and effectively than any of the more traditional tools. Not only so that the supervisor can get a better picture of the situation faced by the student teacher, but so that the student teacher can step out more quickly to a better perspective on it.

Consider a behavioral example familiar to experienced teachers: the student who "can't sit still." Student teachers often feel responsible for maintaining order. They can be easily frustrated by a student who is not constrained by standard classroom policies, and is not deterred by standard consequences for misbehavior. It may even create the perception, on the part of the student teacher, that the class is "out of control." This perception may cause the student teacher to overreact and exacerbate the problem. A few minutes of captured video may provide a new, and useful, way to reflect on this problem. The supervisor may recognize the problem as one that is more common than the student teacher supposed, and one with a reasonable remedy (such as giving the student jobs to do in the classroom). The student teacher may also be able to "see" in the video what was not so obvious at the time, such as that most of the class was actually on task, and not at all out of control.

A video blog could prove very useful as a way to reflect on and process these seemingly specialized situations. In so doing they will become more familiar, less threatening, and more manageable.

Model use of social media

The methods that our student teachers see us employ, especially in the semesters just prior to becoming teaching professionals themselves,

are likely to have a disproportionate impact on the methods they use themselves. If we are able to assign video blogging as a meaningful component of the reflection process during student teaching, we will be modeling a pedagogical tool that will almost surely be adopted in turn by our students in their own classrooms. It will have the same benefits to younger students that it has to our student teachers, namely, greater capacity to express oneself, to share, and to construct knowledge.

Internet based social media has, and will continue to be, expanded by digital natives, those born into the explosion of this technology. Educators can neither fight it nor get ahead of it. We can, however, cast it in our own terms for the purposes of instruction. That is, we can require our students to look at and think critically about the world they are creating, even if it seems to us a virtual one. And they in turn will require the same of their own students.

Allow distant placements

Emory & Henry College in particular has trouble serving the needs of students who would benefit from a diverse student teaching placement. Most of our students are placed in either Washington or Smyth County Virginia schools. These counties are rural and approximately 98% white. Although many of our education students are local and prefer to stay local, we do serve, and will likely expand our service to, students who will seek employment in more diverse school districts. Providing a student teaching experience that will help prepare these students will require placing students at a greater distance from our institution. Given our current model of supervision, which places a strong emphasis on frequent site visits, distance from the college can quickly become prohibitive. We can preserve our hands-on supervision practice, while expanding the range of our site placements, with multi-media communication technology, such as video blogging. In essence, we can reduce the number of site visits required and still maintain a good sense for how things are going at the site. Video blogging doesn't just allow students to document what is happening in their classrooms, it opens a dialogue between student teachers and supervisors that facilitates discussion, progress, and ultimately long-term learning.

Obstacles/conclusion

Video blogging requires access to technology, the skill to use it, and the input of time and energy by both student teacher and supervisor. Any teacher education program that launches a video blog requirement may expect some issues to arise. Expense, training, and confidentiality issues will likely top this list. Fortunately, video production has become both cheap and easy in the last few years. Most

cell phones are able to capture video. Many inexpensive point-and-shoot still cameras will also capture video. We provided inexpensive cameras to our students for this pilot project – but they were returned. Our students preferred to use the cameras they already owned, and with which they were already familiar.

Any recently purchased computer, whether Mac or PC, comes with video editing software. We conducted a brief review of the basic tools of Windows Movie Maker (included with the Windows operating system) – but found that our students learned the software quickly with a short trial-and-error process. Blogging sites (we used Blogger.com) are free and simple to use. With this technology we also began with a conventional "show and tell" lesson demonstrating how to post content. Students, however, acquired the skill by doing it themselves. Social networking technology has a way of emerging from the bottom up.

Confidentiality issues may require special attention. Because pictures and video of young people may be posted online, care needs to be taken for their safety. Access to blogs can be limited to a specific group of users. Student teachers will likely need to obtain permission for capturing pictures and video of students, with full disclosure about intended use. At Emory & Henry we have discussed this with our advisory board and are working out a "memorandum of understanding" with the school systems in which our students are placed. Once placed in schools, our students have the same rights and responsibilities as the employed professionals. Any policy the district has pertaining to pictures and videos of students applies to those captured by our students. In Washington County, for example, these policies forbid pictures to be accompanied by names in any publication. Our student teachers can go further and send forms home with students, asking permission to capture video for educational use.

These obstacles are at worst "low hurdles." The permeation of our work by new media is inevitable. While we don't want to embrace technology just because it is new or trendy, we cannot afford to become irrelevant because of our fear of change. We should expand our repertoire for supervising student teachers to include video blogging. We hope that this model will spur future research into the efficacy of blogging to improve the outcomes of practicum experiences.

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Similar Experiences, Different Outcomes: Preservice Teachers' Pedagogical Belief Development

Jennifer Steinberger Pease
James Madison University

Abstract
This article considers the pedagogical belief development of teacher candidates and their perceptions regarding influences on their beliefs about learning and teaching during a traditional teacher education program. Data collected during interviews with two elementary-level candidates reveal that belief change is a highly individualized and idiosyncratic process.

Introduction

In response to criticisms of teacher education and in light of new understandings about how people learn, teacher educators have endeavored to revise teacher education curricula. In particular, preservice teachers' pedagogical beliefs are receiving greater attention because of the relationship between belief systems and the decision-making, actions, and effectiveness of classroom teachers (Nespor, 1987; Pajares, 1992; Richardson, 1996). Considering how preparation programs can assist teacher candidates in shifting their beliefs so that they reflect research about effective teaching and learning has become an important line of inquiry in the field of teacher education.

This paper explores the belief development of two elementary-level candidates during the course of a traditional teacher education program. Data collected during interviews with these candidates demonstrate that the belief development process is highly individualized and idiosyncratic, even when preservice teachers have similar

experiences within the program. The remainder of this section clarifies the major concepts of the study, including teachers' pedagogical beliefs and influences on preservice teachers' belief development, both within and beyond preparation programs.

Teachers' Pedagogical Beliefs

Teachers' beliefs are notoriously difficult to define and pin down; in considering past studies related to teacher beliefs, labels such as "attitudes," "dispositions," and "values" have all been used interchangeably. Given the many proxies and competing terminologies used in discussions of teacher beliefs, a clear articulation of the conceptualization guiding this study is warranted. The conceptualization is rooted in and supported by literature related to teacher beliefs (Kagan, 1992; Lortie, 1975; Nespor, 1987; Pajares, 1992; Richardson, 1996; Rimm-Kaufman, Storm, Sawyer, Pianta, & LaParo, 2006). First, teachers' beliefs stem from personal values and may exist without evidentiary support. Second, beliefs serve as indicators of teachers' thinking and actions in the classroom. Third, teachers may not be aware of their own beliefs and how those beliefs may influence behaviors. Fourth, beliefs may stem from personal and professional experiences; as such, they are grounded in personal and cultural sources of knowledge. Fifth, teachers' beliefs stem from and are bolstered by continued teaching experience. Finally, teachers' beliefs are difficult to modify; because beliefs influence behaviors, teaching practices may also be resistant to change.

This study is primarily concerned with pedagogical beliefs (as described by Calderhead, 1996), meaning those beliefs related to learning and teaching, the processes themselves and the relationship between the two. A particular focus is granted to the distinction between teacher-directed and learner-centered approaches to instruction, the latter being supported by research as more efficacious in promoting pupil understanding (Bransford Brown, & Cocking, 2000).
Although teachers may not be consciously aware of their own beliefs, there is ample evidence connecting teacher beliefs with teaching practices. Thus, by exploring the development of preservice teachers' pedagogical beliefs, we can better understand how beginning teachers may approach their work upon entering classrooms and whether their instructional practices will be aligned with current research about how people learn. Additionally, examining the belief development process among candidates can provide valuable information to teacher educators who seek to understand how experiences prior to and during teacher education programs interact and influence preservice teachers' pedagogical beliefs.

Influences on Preservice Teachers' Beliefs

Teacher candidates' pedagogical beliefs are often well established by the time they enter preparation programs. The genesis of these beliefs has been well studied, described as the "apprenticeship of observation" (Lortie, 1975), a phenomenon by which future teachers intuitively learn about the teaching profession by observing their own teachers. Based on these observations, candidates may cultivate naïve visions of teaching and come to believe that teaching requires little more than delivering information to a class of students. Such transmissive and positivistic views are not compatible with current understandings about how people learn (Bransford et al., 2000), yet it seems many candidates envision teaching in this way (Brookhart & Freeman, 1992; Richardson, 2003).

Recognizing that preservice teachers' beliefs may reflect teacher-directed approaches to learning and teaching, teacher educators have endeavored to help candidates shift their beliefs to reflect an orientation that is more learner-centered and reflective of research on how people learn (Darling-Hammond & Bransford, 2005). Direct interventions during education coursework have resulted in belief change for preservice teachers (e.g., Joram & Gabriele, 1998). Field experiences, including student teaching, may "wash out" the impact of education coursework on preservice teachers' beliefs (e.g., Kagan, 1992; Zeichner & Tabachnick, 1981). The contextual demands of schools and classrooms, cooperating teachers, the need to address standardized curricula, concerns about classroom management, and perceptions of pupils can influence teacher candidates' pedagogical beliefs and actual teaching performance during field experiences (Haney & McArthur, 2002; Marks, 2007; Virta, 2002). Any or all of these factors can shape teacher candidates' beliefs and practices during school-based field experiences.

Methods

The purpose of this study was to investigate whether and how preservice teachers' prioritized pedagogical beliefs changed during the course of a teacher education program. Given this goal, the research endeavored to determine whether there was a difference between preservice teachers' prioritized beliefs upon entry to the teacher education program and their prioritized pedagogical beliefs at the conclusion of the program; and, among preservice teachers who demonstrated belief change, what the nature of that change was. Preservice teachers' perceptions of the belief change process and potential influences on that process were explored through semi-structured interviews.

Participants and Context

This paper utilizes data collected during the second phase of a two-phase study of preservice teachers' belief development. The study utilized both quantitative and qualitative measures to explore belief change and perceived influences on belief change among 18 teacher candidates from different program areas (elementary, secondary, and special education). All of the candidates in the study were enrolled in a five-year Bachelor of Arts/Master of Teacher program at a large state university in Virginia. The program is fully accredited by the Teacher Education Accreditation Council (TEAC) and has been regarded as a model for other preparation programs to follow (Darling-Hammond, 2006; Levine, 2006). Constructivist (or learner-centered) approaches to instruction are emphasized throughout the program. From the original 18 participants in the first phase of research, a smaller number of participants were identified and invited to participate in in-depth individual interviews, as described below.

Data Collection and Analysis

Each of the 18 participants in the larger study completed two administrations of the Teacher Belief Q-Sort (TBQ) (Rimm-Kaufman et al., 2006), one upon entry to the teacher education program and another at the conclusion of the student teaching semester. Using Q-Sort methodology, the TBQ examines teachers' prioritized beliefs about teaching by prompting them to rank statements according to five Likert-type anchor categories ranging from "least characteristic" to "most characteristic" of their beliefs about and approach to teaching.

Participants' scores on the factor "Teacher-Directed Instruction" (Decker & Rimm-Kaufman, 2008) were analyzed to determine variance between candidates' entry and exit beliefs about learning and teaching. Though no statistically significant conclusions could be drawn from the quantitative data, four individual cases were selected for follow-up study. The cases represented notable individual belief change in different directions (i.e., more teacher-directed pedagogical beliefs and less teacher-directed pedagogical beliefs).

The four participants in this second phase of research took part in a series of semi-structured individual interviews designed to elicit information regarding their beliefs and experiences within the teacher education program. Interviews were audio-recorded, transcribed, and submitted to participants for member checking.

Using data from both the first and second phases of data collection, individual case studies were generated to provide insight into individuals' pedagogical belief development, respective backgrounds, and experiences within the teacher education program. During the first

initial rounds of analysis, each case was approached individually to allow the researcher to fully uncover and reveal details of the candidates' experiences. Descriptive codes were developed using existing empirical and theoretical literature and continually revised throughout the coding process, as recommended by Miles & Huberman (1994).

The creation of case studies was followed by a comparative analysis of content, themes, and patterns across the cases. This analysis revealed that the two female candidates enrolled in the elementary education program differed greatly in their belief development trajectories, despite having similar experiences and receiving consistent messages within the program. The following section examines these two cases in greater detail to illuminate the individualized and idiosyncratic nature of belief development among teacher candidates.

Results

Sarah and Olivia (both pseudonyms) bear multiple similarities in terms of their backgrounds. Both grew up in households where a language other than English was spoken and education was highly valued. Prior to attending university, both attended large, suburban high schools where they experienced academic success. As students in the elementary-level teacher education program, the two were enrolled in the same education courses and completed their student teaching placements at the same elementary school. However, the candidates' prioritized beliefs about learning and teaching – as measured by the TBQ and reported in interviews – differed greatly.

Sarah is a self-described Korean female; she came to America with her family at the age of three. She struggled to learn English during her early years of schooling as Korean has always been the language spoken in her home. Upon beginning the program, Sarah's pedagogical beliefs represented a view of teaching and learning that was largely teacher-directed. She noted that she initially thought that teaching would be "simple" and perceived her future work as "the teacher standing up in front of the room talking." She acknowledged that her views changed dramatically throughout the teacher education program; Sarah gradually became more focused on learner-centered approaches to instruction. Her scores on the TBQ reflect this change: her entry score was 2.78 , higher than the mean of entry scores for all participants in the study ($x = 2.44$; $s = .62$), while her exit score was 1.56, well below the mean of other participants ($x = 2.59$; $s = .64$).

A Hispanic female, Olivia, grew up in a household where Spanish was spoken in addition to English. At the beginning of the teacher education program, Olivia's beliefs reflected a view of learning and

teaching that was predominantly learner-centered. Her entry TBQ score was 1.56, well below the mean entry score for all participants in the study. Yet during the course of the program, Olivia's beliefs shifted to become more teacher-directed in nature; her exit TBQ score was 2.89, much higher than most of her peers involved in the study and representing the greatest score change among any of the 18 participants.

While Sarah's pedagogical beliefs shifted to reflect a more student-centered view of learning and teaching, it appeared that Olivia's beliefs changed in the opposite direction in an equally dramatic fashion. Yet these two individuals had nearly parallel experiences during the teacher education program. What, then, accounts for these contrasting views and changes? Closer examination of the participants' descriptions of their experiences may yield a clearer understanding of pedagogical belief development among these teacher candidates, particularly their perceptions and attributions of belief change.

Perceptions of Belief Change

Sarah perceived a change in her beliefs during the course of the teacher education program. She recognized that her views about learning and teaching were much different as she reached the end of the teacher education program than they were when she began. Her earlier vision had been one in which the teacher delivered content to the students, a vision which Sarah later considered "simplistic." Towards the end of her time in the program, she noted, "…now I see [teaching] more as being a facilitator and really encouraging students to do their own work and come up with their own questions." She further elaborated:

> …the teacher's role would be … preparing everything in order to set up an environment, set up materials for the students to be able to, I guess, to pass the torch, you know… And I guess for the students, the responsibility would be to, after the initial engagement, following through with that…

The role of the teacher, then, seems to have shifted for Sarah. Sarah's beliefs about what students should be doing in the classroom changed as well. She explained that students must be active participants in learning. Sarah's beliefs at the end of the teacher education program closely mirror research findings about effective teaching and how people learn (Bransford et al., 2000). She acknowledged and talked freely about this shift and its implications for her future work.

By contrast, Olivia's description of her beliefs and how they changed during the course of the teacher education program was more complex. Olivia indicated that she was aware of a change in her prioritized beliefs, but pinpointing her specific beliefs about learning and teaching proved to be a challenging endeavor. Olivia's philosophy of teaching, she acknowledged, was in flux and constantly evolving. At the

time of the interviews, she was trying to determine what she considered to be instructional priorities. When asked to comment on the TBQ results demonstrating that her beliefs had become more teacher-directed in nature, Olivia was initially surprised but later explained that she does not believe instruction can always be learner-centered, especially in the lower grades. She commented, "…there are certain things that just are teacher-centered. You know, classroom management, the teacher has to run that to a certain extent."

When asked whether this view represented a change in her beliefs, Olivia responded:

> I don't know…I think that students should have a say in what's going on, and it's great to make a class constitution, but the teacher has to implement the system. The consequences and rewards come from the teacher. Or, are, you know, the teacher provides in some way…I've seen since I've been in the lower grades a lot, that the teacher provides, like emotional support and the relationship with the student…I mean, in a Kindergarten class, the world revolves around the teacher because the Kindergarteners are working to follow the rules, to do what they're supposed to do…they're not independent enough, especially at the beginning of the year, to know what they're supposed to do every minute of the day.

At other points in interviews, Olivia discussed the importance of creating a learner-centered environment in which the teacher acted as a "coach" and the students would be responsible for the work of learning. She cited several quotations that alluded to this same idea, including the following: "…the point of teaching is so that the teacher can watch the student exist without them, so that eventually they can get to the point where they can do it by themselves." Though the complexity of Olivia's pedagogical beliefs made it difficult to verify whether her prioritized beliefs had changed, she did acknowledge that she had grown as a teacher during her time in the program and that she thought about instruction differently. By contrast to Sarah's belief change process, which appeared to be straightforward, Olivia's development was more complicated as she struggled to solidify and articulate her pedagogical beliefs.

Attributions of Belief Change

Near the conclusion of the teacher education program, Sarah and Olivia seemed to hold very different beliefs about learning and teaching; in fact, their TBQ scores were on opposite ends of the range for this study. Yet there were similarities in the ways that Sarah and Olivia

described the development process and programmatic influences on their beliefs.

Both Sarah and Olivia noted that their teacher education coursework played a significant role in changing the ways they thought about learning and teaching. Sarah explained that her first class in the teacher education program led her to see teaching in a different light and even frightened her a bit: "…it really rocked my idea of what I think education is, because I thought it was very simple: go teach, end of story." She also confirmed that her coursework introduced her to elements of teaching she had never thought about, such as differentiated instruction and content teaching methods.

Olivia likewise indicated that her coursework prompted her to think about complex aspects of instruction. She alluded to learning about child development and different instructional models. Additionally, Olivia noted that certain assignments, such as writing a teaching metaphor and developing an imaginary model school forced her to reconsider her priorities and her vision of teaching. Rather than engendering a shift in her beliefs, however, such assignments prompted her to continuously reflect on and articulate her existing pedagogical beliefs.

Sarah and Olivia's descriptions of emerging awareness of their own beliefs and orientations toward learning and teaching are consistent with theoretical literature related to preservice teachers' pedagogical belief development (e.g., Bransford, Derry, Berliner, & Hammerness, 2005). Additionally, these results mirror recent research studies related to pedagogical belief development in methods courses (e.g., Joram & Gabriele, 1998).

In addition to being influenced by new ideas and concepts introduced during their teacher education coursework, both candidates also expressed that field experiences in elementary school classrooms triggered changes in their pedagogical thinking. Interestingly, though Sarah and Olivia completed their student teaching placements at the same school and worked with very similar student populations, such experiences prompted different outcomes for each candidate.

Placed at Davis Elementary, a school with a sizeable population of English Language Learners, Sarah worked in a second grade classroom while Olivia worked in a Kindergarten classroom. Both repeatedly noted the diversity of students in their classes. Sarah referred to her class as a "mini-United Nations" in which several of her students were refugees and only six spoke English as their native language. Olivia explained that the school was unlike anything she had experienced as a student:

> It was such a wake-up call to go to Davis on the first day of preservice week, and to have all these teachers be like, I love Davis, I know exactly what I'm getting myself into, I was dying to

> get to a school like this. And I'm like, school like this? I know exactly what I was getting myself into? What is going on? And then, everybody comes to school the first day, and there's two White kids in my class. And I was like, this is not like where I went to school. It totally put me outside my comfort zone in a good way. I mean, these students…are not having a school experience at all what mine was like.

In addition to the racial and cultural diversity present in their classrooms, Sarah and Olivia taught many children who qualified for free- and reduced-lunch and several who had unstable home lives. Both Sarah and Olivia also worked with Clinical Instructors (CIs) who they described as being "traditional" in their approach to teaching; that is, the candidates considered them to have a predominantly teacher-directed approach to instruction. Sarah noted that her CI's teaching style was very different than the style that Sarah herself sought to adopt, which initially caused some tension between them. However, Sarah's CI was frequently absent due to family issues, and Sarah often found herself assuming full responsibility for the class. Interestingly, her CI's absence may have played a role in Sarah's belief development. Faced with the immediate need to reach her students and help them learn, Sarah employed student-centered approaches to instruction she had learned about in her methods courses. She noted that she relied on trial and error and was gradually able to figure out which approaches worked:

> …when I had to kind of figure out how to teach ESL kids, and have them be able to access the same material as a kid who speaks English perfectly…I think that was an A-ha! moment. Trying to figure out, like, oh, this method doesn't work, let's try more visuals, let's try sounds, let's try…so I think that was an epiphany kind of moment.

Sarah explained that her work with students in the classroom greatly influenced her pedagogical beliefs. Their desire to learn despite coming from difficult backgrounds impressed Sarah and prompted her to play a larger role in facilitating their growth. These findings are consistent with the conceptualization guiding this study, which emphasizes that teachers' beliefs stem from and are bolstered by actual teaching experiences. It is possible that Sarah's beliefs were solidified and strengthened because she had many extended opportunities to enact instruction that reflected what she had learned in her methods courses.

Olivia also found that her work with students and her clinical instructor influenced her beliefs about learning and teaching, though in a different manner. Olivia often felt herself torn in two directions by pupils' needs. On one hand, she wanted to provide opportunities for her

students to be active and engaged learners. However, she also acknowledged that because her students lacked background knowledge, there were times when she was forced to adopt more teacher-directed approaches to learning and teaching. She explained the restrictions and pressure she felt while working in her placement classroom:

> I think that when you actually get out there, it's not as easy to make everything student-centered. I mean, not every lesson you teach is gonna be the most awesome, hands-on, interactive thing. There are certain parts of the day where you have to get something done to get it done.

In conveying this notion, Olivia adopted a tone of conflicted resignation; it was not fully clear that she was fully invested in what she was saying.

Olivia noted that much of her CI's teaching was based on "activities" as opposed to learning experiences. She described her CI as a "master teacher" and noted that she had been teaching Kindergarten for 36 years "and has just done it the same way every year." Olivia and her CI shared a desire to keep students busy, "to get them off the rug and moving." Overall, Olivia felt like she and her CI were similar in their approaches to teaching, though Olivia was unsure how much of an influence her CI had on her beliefs. She did indicate that she had gotten "a lot" of ideas about teaching and learning from her CI, particularly the notion that the classroom environment and how it is managed impacts students' learning and autonomy development. On the whole, though Olivia's explanations of her belief development process were still evolving, she seemed to draw predominantly from her own experiences as a learner and during her student teaching placement. Her descriptions conform to the conceptualization of beliefs utilized throughout this study: the beliefs Olivia holds seem to stem from both personal and professional sources of knowledge, but overall, Olivia does not seem to be fully aware of what her own beliefs about learning and teaching actually are and how such beliefs may influence her teaching.

In conclusion, these two individual cases highlight the "messiness" inherent in studying teachers' beliefs, and particularly the development of those beliefs during a teacher education program. Both Sarah and Olivia described changes to their pedagogical beliefs as gradual; neither could identify specific instances or experiences that led to such changes, yet change was clearly evident for each candidate. Potential explanations for the candidates' differing belief trajectories, as well as implications for teacher educators and programmatic recommendations, are considered in the subsequent section.

Discussion and Implications

Despite similarities in their backgrounds and experiences within the teacher education program, Sarah and Olivia expressed very different views about learning and teaching at the beginning and the conclusion of the program. The data analyzed for this study cannot definitively explain the discrepancies in Sarah and Olivia's belief development trajectories; however, some possible reasons for the differences are suggested in the following paragraphs.

One potential explanation for Sarah and Olivia's differing belief trajectories could be variation in each candidate's personality characteristics and habits of mind, such as persistence, locus of control, flexibility, ability to collaborate with colleagues, desire to please, self-confidence, and self-efficacy. The challenge of teaching a diverse group of pupils also likely forced the candidates to reconsider their pedagogical beliefs in order to respond to the situation. Additionally, Olivia explained that because Kindergarteners needed more direction, the age of her students might have prompted changes in her approach to learning and teaching. Although not verbalized, Sarah may have felt a sense of responsibility to meet her students' learning needs because of her own background as an English language learner, which in turn may have led her to espouse and use learner-centered instructional approaches.

Notably dissimilar experiences with Clinical Instructors may also account for differences in Olivia and Sarah's pedagogical beliefs. Although both considered their CIs to be "traditional" in their approaches to teaching, Sarah explained that her CI's absence in the classroom pushed her into a full-time teaching role sooner than she anticipated. Thus lacking a model on which she could base her emerging teaching practices and free to utilize approaches of her own choosing, Sarah relied predominantly on methods she learned in her teacher education coursework. She found such learner-centered methods to be successful with her pupils. Interestingly, this finding echoes results of an earlier study conducted by Marks (2007) in which a candidate was allowed "complete autonomy" during a field placement and proceeded to implement many methods and approaches she had learned during her education coursework. Certainly such an extreme approach is ill-desired by teacher educators, but it serves to highlight the deep need for recurrent and well-structured field-based opportunities during which candidates can practice using learner-centered approaches to instruction.

Multiple researchers have demonstrated that preservice teachers largely perceive field experiences (particularly student teaching) to be the most influential parts of their preparation programs (e.g., Clift & Brady, 2005). Teacher education programs must be cognizant of the

explicit and implicit ways school-based faculty influence preservice teachers' pedagogical beliefs and approaches to teaching. Ideally, clinical faculty members should be well-acquainted with and invested in the mission of the teacher education program so that they can reinforce rather than contradict ideas developed during pre-clinical coursework. Moreover, throughout all of their field experiences, preservice teachers should be encouraged to make explicit and confront the challenges they face in enacting learner-centered pedagogies. Peers and faculty members should serve as soundboards and reservoirs for ideas about overcoming these challenges while still respecting the classroom culture.

The data reported here are by no means fully comprehensive: there are limitations inherent in both the methods and the resultant findings. While the study sought to privilege the voices of teacher candidates, the self-report nature of both quantitative and qualitative data collection methods may not provided a sufficient portrait of the belief development process. Observational data about Sarah and Olivia's actual teaching practices were not collected and might have provided additional perspectives on their instructional approaches in the classroom and the environments in which they were working. Future research on preservice teachers' beliefs should include such data to possibly allow stronger assertions about the congruence of candidates' beliefs and teaching behaviors.

Collecting and analyzing micro-level contextual data may have provided additional insights into the potential influence of peer groups and specific instructor feedback provided during education coursework. Such information should be targeted in future studies. The "ecologies" of field placements should also be closely monitored: future research should more explicitly consider both the influence of pupil populations and the student teacher/CI relationship. To date, little attention has been paid to such naturalistic contextual factors that may influence preservice teachers' belief development.

Ultimately, this research describes the idiosyncratic belief development of two preservice teachers and raises important questions about whether and how teacher preparation programs can help teacher candidates' shift their pedagogical beliefs to reflect current research about how people learn. Although no definitive prescriptions for influencing preservice teachers' beliefs are offered, the study does highlight the need for preparation programs to look beyond educational coursework and to consider how they might mediate the contextual factors within classrooms and schools that influence candidates' pedagogical belief development.

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Factors That Influence Teachers' Views on Standardized Tests

Christine Schuette
Mervyn Wighting
Lucinda Spaulding
Michael Ponton
and
Anastasia Betts

Regent University

Abstract
The central aim of this study was to explore K-12 teachers' (N = 183) attitudes about standardized tests as a function of experience, instructional level, student population, and type of school. A questionnaire was developed to measure teachers' attitudes regarding the necessity of standardized tests and their influence on best practices. Findings from this study indicated that special education and inclusion teachers viewed standardized tests as more negatively influencing instruction than general education teachers.

The No Child Left Behind Act (NCLB, 2001) reignited the age-old debate initially fueled by a Nation at Risk (National Commission on Excellence in Education, 1983) over the use of standardized tests. With the accountability provisions of the NCLB legislation and the ensuing more stringent Adequate Yearly Progress requirements, there has been a wealth of research on the impact of these tests on teaching practices and student learning (e.g., Abrams & Madaus, 2003; Amrein & Berliner, 2002; Au, 2007) and how these tests are shaping today's standards of educational accountability (Horn, 2003; Kim & Sunderman, 2005; Schroeder, 2003). In many states such as Virginia, high stakes decisions concerning student retention and graduation, teacher promotion, and school funding have become associated with standardized tests (Abrams, Pedulla, & Madaus, 2003; Au, 2007; Berube, 2004) thereby adding another facet to the debate and a new and important factor to research on the effectiveness of standardized tests.

Urdan and Paris (1994) made a strong case for the need for continual research on teachers' views regarding standardized tests since this is paramount to understanding how the high stakes standards and the use of the tests influence the implementation of best practices and how this changes over time. According to their findings, teachers had negative feelings about standardized tests and their impact on classroom practices though their beliefs varied according to teaching experience and the achievement level of the student population. While the generalizability of their findings is limited since the subjects were all in Michigan and the study was conducted before the NCLB became law in 2001, this topic warrants further investigation particularly since there has been an increase in students' standardized tests scores in Virginia in the last several years (Berube, 2004) and some research has noted a positive shift in attitude over the last decade (Vogler, 2002; Wolf, 2007).

Pedulla et al. (2003) conducted a study similar to Urdan and Paris (1994) though their findings are more current and are based on a national survey of teachers. Overwhelmingly, they (Pedulla et al.) confirmed that the tests are having a profound impact on teachers' attitudes and made an appeal for "their voice[s] on this issue [to] be heard" (p. 9). Additionally, they expressed the hope that their research would "spur more teacher input in the future" (p. 9).

Research Purpose

The central aim of this research was to reexamine and further explore teachers' views about standardized tests as a function of experience, instructional level, student population, and type of school to determine what factors influence the perception of positive or negative consequences. We used a sample of teachers from Virginia since research has confirmed the Commonwealth to be in the category of a high-stakes state (Abrams, Pedulla, et al., 2003); the participants were teachers from public and independent schools.

We hypothesized that more experienced teachers would have more positive attitudes toward the use of standardized tests and their influence on best practices. This hypothesis was based on research findings indicating that new teachers tended to have more negative views toward standardized tests (Costigan, 2002) and teachers with over 5 years experience viewed standardized tests more positively (Urdan & Paris,1994).

We predicted that teachers' attitudes would differ significantly by instructional level and that elementary school teachers would have more negative views compared to middle and high school teachers. We derived this expectation from the research of Pedulla et al. (2003) and Urdan and Paris (1994) who found that elementary school teachers more

frequently focused on the negative consequences of standardized tests compared to middle and high school teachers.

Our third hypothesis was that teachers' feelings would vary as a function of student population (e.g., general education, special education, gifted, inclusion) with teachers in general education promoting more positive views compared to gifted resource or special education or inclusion teachers. This hypothesis was also grounded in the literature on the impact of standardized tests on gifted education (Mendoza, 2006) and on those children with special learning challenges (Horn, 2003; Orfield & Wald, 2000; Thomas & Bainbridge, 2001).

Finally, our fourth hypothesis concerned the comparison between public and independent schools. We predicted that there would be a difference between teachers' attitudes with independent schools favoring standardized tests as the use of mandated high-stakes testing with the results being reported to the public sector is only required for public schools (Horn, 2003). Whereas teachers in independent schools do employ standardized tests, such tests are not associated with a similar high–stakes assessment (Au, 2007).

Moreover, though we included an examination of the demographic variables of teacher educational level and gender, we did not have specific expectations about the influence of either since research on this topic to date has not established a consistent pattern.

Method

Participants

The participants were 183 teachers employed in public (62.6%) and independent schools (37.4%) in an urban area in southeast Virginia. Descriptive statistics are presented in Table 1. After receiving permission from the school district, we made a request to individual administrators to sample a pool of teachers during a faculty meeting and assured them that faculty participation was voluntary.

Procedure

We administered the surveys at five schools: a lower and upper level independent school and a public elementary, middle, and high school. At the public elementary and high schools, a school administrator distributed the surveys whereas at all of the other locations, one of the researchers was available to distribute the surveys. Unfortunately, due to the timing of the data collection (end of the school year), surveys were not returned from the elementary public school sample.

Table 1

Descriptive Statistics on Demographic Variables

Variable	*n*	%	Variable	*n*	%
Gender			School Type		
Male	39	21.3	Public	114	62.6
Female	144	78.7	Independent	68	37.4
Student Population			Teacher experience		
General Ed	104	58.1	< 4 years	50	27.8
Special Ed	15	8.4	5-10 years	44	24.4
Gifted	4	2.2	11-15 years	33	18.3
Inclusion	45	25.1	16-20 years	13	7.2
Other	11	6.1	> 20 years	40	22.2
Instructional Level			Teacher education		
Elementary[a]	24	15.8	Bachelor's	83	45.9
Middle[b]	65	42.8	Master's	87	48.1
High School[c]	63	1.4	C.A.G.S.	6	3.3
			Doctorate	5	2.8

Note: Frequency totals for all IVs do not equal 183 due to missing data.
[a] Grades K-5, [b] Grades 6-8, [c] Grades 9-12

Subjects were told that the purpose of the study was to explore teachers' attitudes toward standardized tests and explained that participation was voluntary. Teachers completed the survey in about 15 minutes, and one of the researchers was available (for the independent school sample and for the public middle school sample) in the event that there were any questions about the wording of survey items.

Measure

The Teacher's Views on Standardized Tests Questionnaire was developed by the first and second author of this study to assess teachers' views concerning the impact of standardized testing on practice. All survey items were intended to measure a facet of teachers' attitudes pertaining to the necessity of standardized tests and the influence of the test on instructional practices. This instrument was developed based on similar measures that have been used in previous research (Pedulla et al., 2003; Urdan & Paris, 1994) and was piloted with a sample of 30 teachers. Modifications were made based on information gained from the pilot sample (e.g., confusing or redundant questions were eliminated and the survey was shortened for administrative approval) with the final instrument consisting of 20 questions evaluating teachers' views on standardized testing. All items were coded on a 5-point Likert scale (1 = *strongly disagree,* 2 = *disagree,* 3 = *neutral,* 4 = *agree,* 5 = *strongly agree*). Sample items included statements such as "Standardized tests benefit teachers" and "More teachers 'teach to the test' as a result of the use of standardized tests in today's schools [reverse coded]."

For the purpose of statistical analysis, five of the items from the measure needed to be reverse coded prior to analysis. Values for items 5, 6, 8, 16, and 17 were negatively phrased, meaning higher scores reflected more negative attitudes toward standardized assessments than lower scores, which is inconsistent with the other 15 items on the measure. Consequently, values assigned to these items were recoded so that increasing means reflected more positive views toward standardized assessments and decreasing means reflected more negative views toward standardized assessments.

In order to identify a parsimonious number of factors for the purpose of later multivariate analysis, principal components analysis was used as an exploratory analysis of the 20-item instrument. Six factors were extracted based on eigenvalues greater than 1. However, because eigenvalues may not always yield accurate results (Green & Salkind, 2005) a scree plot was examined thereby revealing only four factors before values leveled off. Furthermore, a six-factor pattern matrix revealed multiple items that were cross-loaded or split across more than one factor as well as item groupings that were not consistent with items measuring similar constructs.

After multiple analyses, a four-factor model (see Table 2) using maximum likelihood extraction and oblique rotation (direct oblimin) was deemed the best fit for the model, $\chi 2\ (42.85) = 41$, $p = 0.39$. Items were considered for deletion from the measure if they were loading on more than one factor, their factor loadings were less than 0.30, or they were not associated with the other items loading on the factor. The final model retained 14 of the 20 original questions with the four factors accounting for 46.28% of the explained variance. Factor 1, overall positive consequences of standardized testing, accounted for 27.4% of the variance; Factor 2, negative influence on instruction, accounted for 8.9% of the variance; Factor 3, positive impact on student skills, accounted for 6.9% of the variance; and Factor 4, appropriateness of standards of learning, accounted for 3.1% of the variance. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy statistic of 0.82 suggested that the sample size was sufficient relative to the number of items on the revised scale. Bartlett's test of sphericity was significant ($p < .001$) thereby suggesting that the correlation matrix was not an identity matrix and the assumption for multivariate normality was tenable. The internal consistency estimates were .83, .63, .70, and .66 for Factors 1 through 4, respectively. Whereas Factors 2 and 4 were below the proposed criterion level of .70, the overall internal consistency of the composite measure was adequate, $\alpha = .81$.

Table 2

Component Loadings Associated with the Maximum Likelihood Factor Analysis

Item	*Factor	Item Content	Four Component Model			
			Factor 1	Factor 2	Factor 3	Factor 4
4	1	Standardized tests benefit students	**0.82**	0.05	-0.08	0.03
3	1	Standardized tests benefit teachers	**0.78**	-0.01	0.08	-0.04
1	1	Standardized tests are necessary for school accountability	**0.73**	0.01	-0.07	0.11
2	1	The results of standardized tests are used for educational reform	**0.58**	-0.02	0.14	-0.03
6	2	More teachers "teach to the test" as a result of the use of standardized tests in today's schools	0.17	**0.76**	-0.01	0.02
8	2	On average, teachers spend at least half of their instructional time (or more) preparing their students for standardized tests	0.04	**0.60**	-0.18	0.20
5	2	There are high stakes associated with standardized tests	-0.13	**0.47**	0.11	-0.09
16	2	Teachers use fewer hands-on activities as a result of standardized tests	0.11	**0.31**	0.16	0.12
11	3	The use of standardized tests has resulted in a decrease in students' test anxiety	0.01	0.09	**0.67**	0.01
10	3	Standardized tests have improved children's ability to be able to think critically	0.16	0.07	**0.59**	0.04
9	3	Children are becoming better test-takers as a result of standardized tests	-0.02	-0.12	**0.54**	0.23
15	4	Questions on the standardized tests are fair and unbiased	-0.05	0.13	0.01	**0.62**
12	4	Standardized tests are developmentally appropriate	0.11	-0.09	0.15	**0.62**
14	4	Teachers view standardized tests as an opportunity to learn what material the students have not mastered	0.14	-0.02	0.11	**0.43**

* Factor 1: Overall positive consequences of standardized testing
Factor 2: Negative influence on instruction
Factor 3: Positive impact on student skills
Factor 4: Appropriateness of standards of learning

Results

Multivariate analysis of variance (MANOVA) was conducted to determine if there were significant differences in teacher responses on each of the four factors by student population (general, special, gifted, inclusion, other), instructional level (elementary, middle, high school), type of school (public, independent), teacher experience (< 4 years, 5-10 years, 11-15 years, 16-20 years, > 20 years), teacher education level (Bachelors, Masters, CAGS, and Doctorate), and teacher gender. Descriptive statistics are presented in Table 3. Prior to analysis, test assumptions were evaluated. Boxplots were generated to screen the data for outliers; no extreme outliers were present. Assumptions for multivariate normality evaluated using the Kolmogorov-Smirnov (K-S) test ($n > 50$) and the Shapiro-Wilk test ($n < 50$) revealed some deviations from normality; however, MANOVA are robust to moderate violations as long as they are due to skewness rather than extreme outliers (Grimm & Yarnold, 1995; Tabachnick & Fidell, 2001).

The MANOVA for student population (general, special, gifted, inclusion, other) indicated a significant main effect, Pillai's Trace = .21, $F(16, 648) = 2.29$, $p < .01$, multivariate $\eta 2 = .05$. Assumptions for homogeneity of variances were evaluated using Levene's Test and were found untenable only for Factor 2 ($p = .04$). A significant main effect for student population differences was found for Factor 2, $F(4,162) = 4.25$, $p < .01$, partial $\eta 2 = .09$. Follow-up pairwise comparisons of Factor 2 indicated significant differences between general and special education teachers (mean difference = .58, $p = .01$) as well as between general and inclusion teachers (mean difference = .34, $p = .01$) with general education teachers having more positive views toward standardized tests than special education and inclusion teachers. That is, special education teachers and inclusion teachers more strongly agreed with statements about the negative influence of standardized tests on instruction (M = 1.75 and 1.99, respectively) than regular education teachers (M = 2.33; see Table 3); note that Factor 2 consists of reverse coded items and Table 3 presents descriptive statistics of recoded data.

Table 3

Descriptive Statistics by Factors

Demographic Variables	*Factor 1		*Factor 2		*Factor 3		*Factor 4		
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*n*
Student Population									
General Ed	3.3	0.9	2.33	0.8	2.5	0.85	3.01	0.8	96
Special Ed	3.6	1.02	1.75	0.53	2.5	1.05	3.18	1	13
Gifted	3.7	0.63	1.58	0.63	2.6	0.51	3.78	0.7	3
Inclusion	3	0.78	1.99	0.54	2.6	0.81	3.01	0.7	44
Other	3.7	0.54	1.82	0.55	2.8	0.82	3.06	0.7	11
Instructional Level									
Elementary	3.6	0.97	2.76	0.87	2.7	0.9	3.55	0.6	22
Middle	3.3	0.85	2.04	0.79	2.6	0.85	2.95	0.8	58
High School	3.2	0.84	2.11	0.57	2.5	0.86	2.93	0.7	61
School Type									
Public	3.3	0.81	1.94	0.57	2.6	0.86	2.97	0.8	105
Independent	3.3	0.96	2.47	0.84	2.5	0.82	3.14	0.8	64
Teacher experience									
< 4 years	3.3	0.8	1.97	0.47	2.5	0.75	2.99	0.7	47
5-10 years	3.2	1.03	2.4	0.85	2.5	0.96	3.07	0.8	42
11-15 years	3.2	0.87	2.23	0.71	2.5	0.94	2.89	0.7	33
16-20 years	3.3	0.94	1.8	0.58	2.5	0.89	3.42	0.8	11
> 20 years	3.5	0.75	2.1	0.85	2.7	0.75	3.06	0.8	35
Teacher education									
Bachelors	3.2	0.92	2.15	0.78	2.5	0.84	3.12	0.9	78
Masters	3.3	0.84	2.15	0.7	2.5	0.83	2.93	0.7	80
C.A.G.S.	3.8	0.69	2.15	0.63	3.1	0.72	3.4	0.5	5
Doctorate	3.7	0.68	2	0.64	2.9	0.99	3.13	0.8	5
Gender									
Male	3.4	0.84	2.23	0.59	2.7	0.92	3.21	0.7	38
Female	3.3	0.88	2.12	0.76	2.5	0.82	2.98	0.8	132

* Factor 1: Overall positive consequences of standardized testing
Factor 2: Negative influence on instruction
Factor 3: Positive impact on student skills
Factor 4: Appropriateness of standards of learning

Note 1: Due to pairwise deletion of cases with missing data, frequency totals for IVs may not correspond to Table 1 totals.

Note 2: Responses were based on a 5-point Likert scale, with 5 reflecting positive attitudes toward standardized tests and 1 reflecting negative attitudes.

The MANOVA for instructional level (elementary, middle, and high school) indicated a significant main effect, Pillai's Trace = .17, $F(8,272) = 3.06$, $p < .01$, multivariate $\eta 2 = .08$. Assumptions for homogeneity of variances were tenable across all four factors. A significant main effect for instructional level differences was found for Factor 2, $F(2,138) = 8.58$, $p < .001$, partial $\eta 2 = .11$, and Factor 4, $F(2,138) = 5.94$, $p < .001$, partial $\eta 2 = .08$. Follow-up pairwise comparisons indicated teachers' views on Factor 2 were significantly higher for elementary school teachers than for middle school teachers (mean difference = .72, $p < .001$) and high school teachers (mean difference = .65, $p < .001$). There were no significant differences between middle and high school teachers. As can be seen in Table 3, the mean scores for middle and high school teachers were lower indicating that these teachers were more likely than elementary teachers to agree that standardized tests have a negative influence on instruction.

Follow-up pairwise comparisons for Factor 4 were also significantly higher for elementary school teachers than for middle school teachers (mean difference = .60, $p < .01$) and high school teachers (mean difference = .62, $p < .01$). Whereas middle and high school teachers responded with a neutral reaction ($M = 2.95$ and 2.93, respectively) to the question about the need, fairness, and appropriateness of the standardized tests (Factor 4), elementary school teachers' responses represented a more favorable attitude statistically ($M = 3.55$).

The MANOVA for type of school (public or independent) indicated a significant main effect, Pillai's Trace = .15, $F(4, 164) = 7.33$, $p < .001$, multivariate $\eta 2 = .15$. Assumptions for homogeneity of variances were found untenable for Factor 2 ($p < .01$). A significant main effect for differences between type of school was found for Factor 2, $F(1,167) = 24.01$, $p < .001$, partial $\eta 2 = .13$. Follow-up pairwise comparisons indicated teachers' views on Factor 2 were significantly higher for teachers at independent schools than for teachers at public schools (mean difference = .53, $p < .001$). This finding indicates that teachers in public schools more strongly agreed with statements about the negative influence of standardized tests on instruction ($M = 1.94$) as compared to teachers in independent schools ($M = 2.47$).

The MANOVA tests for teacher experience, level of teacher education, and gender were not significant.

Discussion

Data analysis from this study examining teachers' reflections on the impact of standardized tests produced four significant findings: (a) special education and inclusion teachers viewed standardized tests as more negatively influencing instruction than general education teachers; (b)

middle and high school teachers viewed standardized tests as more negatively influencing instruction than elementary teachers; (c) teachers at public schools perceived standardized tests as having a more negative influence on instruction than teachers in independent schools; and (d) elementary school teachers felt the standards of learning were more appropriate than middle and high school teachers.

It is interesting to note that three of the four significant findings related to Factor 2, which dealt with negative influences of standardized assessments on instruction. With the exception of the fourth finding dealing with Factor 4 (appropriateness of standards of learning), teachers' views on Factors 1, 3, and 4 did not produce findings that were statistically significant when group comparisons of teachers were made according to student population, instructional level, type of school, teacher experience, teacher education level, and gender.

Four survey items grouped under Factor 2 provide an important context for the discussion of the results relating to teachers' negative views on the influence of standardized tests on instruction. Specifically, there were statements regarding teachers "teaching to the test," spending at least half of their instructional time on test preparation, the high stakes that have been associated with the tests, and teachers using fewer hands-on activities as a result of the tests. Whereas there were significant group differences by student population, instructional level, and school type, overwhelmingly, teachers at all levels agreed with the above-mentioned statements about the negative influence of standardized tests. The group differences reflect that there were variations in the extent to which they agreed.

The finding that special education and inclusion teachers had more negative views (i.e., agreed more strongly about the negative effect of standardized tests on instruction) than general education teachers was expected based upon the literature on performance differences between general education students and those with special learning needs on assessment tests (e.g., Horn, 2003; Orfield & Wald, 2000; Thomas & Bainbridge, 2001). Many other studies have documented that teachers feel pressured to raise test scores (e.g., Amrein & Berliner, 2002; Pedulla et al., 2003) and often revert to more traditional practices, such as direct instruction, to help prepare the students for the tests (Abrams & Madaus, 2003; Vogler, 2002). It is not surprising then that when students perform poorly on assessments, teachers feel the need to alter their instruction, perhaps contributing to more negative attitudes concerning the impact of the tests (Kim & Sunderman, 2005; Urdan & Paris, 1994).

The finding that middle and high school teachers viewed standardized tests as more negatively influencing instruction than elementary teachers was unexpected and inconsistent with previous research (Pedulla et al., 2003; Schroeder, 2003; Urdan & Paris, 1994). One

of the limitations of this study is that due to the negative return rate from the public elementary school sample, all of the elementary teachers surveyed were independent school teachers. The fact that all of the elementary teachers were teachers in a private school setting (where standardized tests do not carry the same "high-stakes" weight as in the public arena) may be a confounding factor in this case.

There was a difference, as hypothesized, between the attitudes of the public school sample and the independent school sample with public school educators having a more negative view about the tests' impact on instruction. Interestingly, the independent school educators more often responded in a neutral way to these survey items. Clearly, educators in an independent setting do not face the same pressures as those in the public sector (Abrams & Madaus, 2003; Abrams, Pedulla, et al., 2003; Au, 2007), which raises the question of whether the actual tests or the high stakes associated with the tests are influencing public educators' negative opinions. Future research that includes a qualitative component should explore this question to examine teachers' reasoning to this regard.

The fourth significant finding was related to Factor 4, which incorporated three survey items to assess the appropriateness of the standards of learning. These items included a statement about the fairness of the test questions, a statement that standardized tests are developmentally appropriate, and a statement about standardized tests as an opportunity for teachers to learn what material the students have not mastered. The significant difference was between elementary and the middle and high school teachers. The elementary teachers agreed more often with these statements compared to the middle and high school teachers whose responses were more often neutral. While it is important to consider the limitation previously mentioned about the singular composition of the sample of elementary teachers (all of whom taught in an independent school), the finding is still interesting because it reinforces the finding that teachers' views toward standardized tests vary by instruction level (Pedulla et al., 2003; Urdan & Paris, 1994). Additionally, the finding from Factor 2 that elementary teachers view standardized tests less negatively than others in terms of their effect on instruction is consonant with this finding that they are also more likely to agree that the standards of learning are appropriate.

We had expected to find differences in teachers' attitudes as a function of years of experience teaching (e.g., Urdan & Paris, 1994) but we did not. It may be that there is more uniformity in teachers' attitudes since nearly a decade has passed since NCLB was legislated, which would be another interesting direction for future research.

Concluding Remarks

This study provides another context through which we can understand teachers' views on high-stakes tests. Though the results are not generalizable to all schools due to the lack of random sampling, the findings point to the need for future research to determine the direction of educational reform. Furthermore, although this study was limited to examining teachers' attitudes toward standardized assessments, further research is necessary to explore the impact of these attitudes on student learning outcomes. Although it was outside the scope of this study to investigate whether teachers' views on standardized tests impact student learning, this is an important question for future research. If research continues to document that teachers perceive standardized tests have a negative influence on instruction, might we need to reconsider whether or not high-stakes tests should be the reality of the future?

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Preservice Second-Career Teachers in a Blended Online-Residential Preparation Program: Profiling Characteristics and Motivations

Samuel J. Smith
and
John J. Pantana

Liberty University

Abstract
This study examines preservice second-career teachers (SCTs), their motivations for switching careers, and their perceptions of the profession. Participants were graduate students in a blended online-residential Master of Arts in Teaching program (n=311). Profiles, characteristics, motivations, and perceptions were explored using the FIT-Choice (Factors Influencing Teaching Choice) Scale and focus groups.

In the mid-1980s, school administrators began experiencing a new phenomenon in the composition of their teaching staffs. Increasingly, their faculties consisted of second-career teachers (SCTs), individuals with bachelor's degrees in non-education related fields and with years of work experience in other occupations (Haselkorn & Hammerness, 2008). This trend persisted through the mid-1990s until SCTs became the fastest growing group in teacher training programs in the new millennium (Brooks & Hill, 2004), essential to fully staffing school faculties (Kaplan & Owings, 2002). Because of the recent economic recession and the resulting massive job losses, this trend has the potential to escalate as the work force retools to seek stable employment. This influx of life-experienced newcomers into the field holds a variety of implications for school administrators and how they supervise instruction. With the proliferation of online education, an additional consideration is that prospective SCTs are seeking an alternative to traditional preparation programs. This mode of delivery for teacher licensure raises questions about the degree of qualification these candidates possess compared to those prepared in a more traditional licensure program.

Review of the Literature

SCT Profiling Characteristics

Though the media tend to highlight stories of highly paid professionals sacrificing status and salary to become teachers, these stories do not reflect the norm. A significant percentage of United States SCTs receive pay raises when they move into teaching, indicating that these career switchers may not have held the kind of prestigious professional positions some imagine (Hasselkorn & Hammerness, 2008). Valued for their transferrable skills, maturity, self-confidence, and philosophy of learning, military personnel have been targeted as potential SCTs, especially through programs like Troops to Teachers. Some educators have voiced concerns about such a large number of troops entering the classroom because they tend to be a conservative force for maintaining the educational status quo and are less open to progressive methods than first career teachers are (Chambers, 2002). Australian studies have shown that SCTs there frequently come from entertainment, science, information technology, and fields holding a similar occupational status to that of education (Richardson & Watt, 2006; Watt & Richardson, 2008).

Kaplan and Owings' (2002) research revealed that administrators value a variety of qualities SCTs bring to schools. They bring maturity, life experience, good work habits, and both depth and breadth of content knowledge. They know how to apply their content knowledge to practical situations and are perceived as being determined individuals who collaborate with others to solve problems. Older entrants also have lower attrition rates than do younger ones. A potentially troublesome quality for faculty-administration relations, however, is that SCTs have a lower tolerance for extraneous bureaucratic paperwork that they believe interferes with their work with students.

A variety of studies reveal motives for individuals choosing to teach as an initial career, but it is worthwhile first to consider the reasons least likely for someone to make such a choice. While teachers in the 1960s commonly selected education as a fallback career (Richardson & Watt, 2006), this has become less common in recent years, especially among SCTs (Watt & Richardson, 2007). For those choosing to teach in the fields of science, technology, and math, the lowest rated motivation for doing so was to have a fallback career (Watt, Richardson, & Pietsch, 2009). Another motivation that rated consistently low was that of remuneration. Switchers to careers other than teaching rated a higher salary at the very top (Richardson, Watt, & Tysvaer, 2007), whereas switchers to teaching consistently rated it as a low motivating factor (Peter D. Hart Research Associates, 2008; Armour, 2003). Though written

before the current economic recession, Armour's 2003 statement resonates today:

> The tepid economy is giving rise to a new breed of career changer. Unlike the job hoppers of the late 1990s, who fled traditional businesses for uncertain dot-com riches, today's career switchers are professionals in search of a sure thing. Rattled by the economic turmoil of recent years, these beleaguered workers are leaving industries shaken by layoffs for careers where the prospects are more secure, even if the pay is not as generous. . . . Even owners of businesses in hard-hit industries, who once earned six-figure incomes are closing shop to become school teachers. (p. 32)

Nature of Preparation Programs

Once SCTs commit to prepare for their newly chosen profession, what types of preparation programs do they find? Unfortunately, the literature reveals that preparation programs for older entrants vary little from those for younger college-age preservice teachers. The most distinctive features tend to be in the delivery of the preparation and not in the content of the curriculum. For example, programs designed for SCTs tend to be more intense, flexible, and accelerated in order to accommodate the candidate's work and family schedule. However, program content and instructional methodology do not take into account the specific learning needs and life experiences of older learners (Holland, 2004). When surveyed, potential SCTs have conveyed that the most important aspect of a teacher training program is that it be tailored to build on the work experience of older entrants. One study found that this feature was more important for men than women and became more important the older SCTs were (Peter D. Hart Research Associates, 2008).

Transition into the Field

Studies on the transition of SCTs into the field have yielded three valuable insights for school administrators. First, supervisors' evaluations showed that SCTs consistently were rated higher than their first career counterparts in four main areas: 1) organization of content for student learning; 2) creating an environment for student learning; 3) teaching for student learning; and 4) professionalism (Haselkorn & Hammerness, 2008). Second, despite these desirable qualities, in Mayotte's study (2003) first career teachers showed evidence of an easier transition into the field than SCTs. This was attributed to younger teachers being more flexible and receiving more assistance from mentors and administrators who acknowledged them as newcomers in need of

guidance. The older SCTs were viewed as new to the school but were not offered as much assistance because of their perceived life experience and expertise. Third, when SCTs failed, there were some interesting gender differences to note. Older males had a somewhat higher incidence of failure than females and younger males. Zagor (2006) speculated that this was because they were leaving a male-dominated work environment and entering one that was overwhelmingly dominated by younger females. Initially, men received more positive reinforcement from colleagues, but that soon waned and turned to skepticism about their motives for leaving their previous line of work to become a teacher. Over time, men struggled more than did women with role conflict. If they failed to conquer the challenges faced in the transition, some became ambivalent while others adapted a façade of confidence that blocked the reception of feedback from mentors. Failure among women, Zagor noted, was more likely for those who had held high-powered positions and who struggled in the transition with the loss of power and prestige. This was manifested most commonly in strained relationships with peers.

The Present Study

The purpose of the present study is to explore the profiling characteristics, motivations, and perceptions of preservice SCTs who choose to pursue their preparation in a blended online-residential master of arts in teaching (MAT) program. It is distinct from studies cited in the literature review in that it focuses specifically on those choosing a teacher licensure program that is 75% online with the remaining coursework required residentially in three one-week intensive courses. Both quantitative and qualitative data were collected using the FIT-Choice (Factors Influencing Teaching Choice) Scale and focus groups. The findings provide a profile of these late entrants to the field, addressing their demographic characteristics, motivations, perceptions, and career commitment/satisfaction. Also considered is the role the option of a blended online-residential program played in their decision to switch careers to teaching.

Method

Sample and setting.

The population (*N*=721) consisted of candidates enrolled in a blended online-residential MAT program at a private religiously-affiliated university in Virginia. They were seeking an initial teaching license in elementary, secondary, or special education. Though candidates were enrolled through an online program, as part of the

licensure requirement they were compelled to attend three residential one-week courses referred to as one-week intensives. Prior to arriving on campus for summer intensives, candidates received an email link to an online version of the survey. Participants (*n*=311) in the quantitative aspect of the study were those who responded. The qualitative aspect involved six focus groups of four to six members each. A total of 32, a subgroup of those who had already taken the online survey, volunteered to participate in these one-hour focus groups.

Quantitative instrument.

The FIT-Choice Scale determines the degree of influence for a variety of motivations from individuals choosing teaching as a career and is based on the conceptual framework of Expectancy-Value theory, a comprehensive model for explaining academic and career choices. The scale includes 61 items that ask participants about influential factors, beliefs about teaching, and their decision to become a teacher (See Table 4). Responses are reported on a 7-point Likert scale from "not at all important" to "extremely important." Validated in a study by Watt and Richardson (2007), the scale was shown to have a Cronbach's alpha of internal consistency ranging from .90 to .97. Strong convergent and divergent construct validity was evidenced with a median .87 pattern coefficient.

An introductory section was added to the FIT-Choice Scale in order to collect demographic data and some open-ended responses. Participants were asked their gender, age, ethnicity, level of education, and previous major areas of study. Open-ended items were as follows:

- In what occupations have you worked since graduating with your bachelor's degree?
- Briefly state your main reason(s) for choosing to switch your career to become a teacher.
- Briefly state your main reason(s) for choosing a blended online-residential teacher preparation program.
- If your only option for teacher preparation had been a traditional residential program, would you still have pursued the career change? Explain your answer to the previous question.

Qualitative instrument.

The qualitative element of the study served both to validate and enrich the quantitative results with stories of personal life experiences. Focus group interviews, conducted by the primary author of this study, were in-depth and minimally structured. Certain questions were emphasized with some participants more so than with others, and

additional probing questions were interjected as needed. The interviewer recorded responses in field notes and conducted a content analysis to identify prominent themes. The following questions served as the interviewer's guide:

1. When you chose your undergraduate major and/or previous graduate degrees, did you consider teaching as a career at all? What were your thoughts about teaching at that time?
2. What work or other experiences (in or outside the home) did you pursue following your bachelor's and/or graduate degree(s)? Why?
3. What caused you to leave your first career?
4. At what point in your life did you decide to become a teacher?
5. Did some person or event encourage you to become a teacher? Describe.
6. What do you see yourself doing in five to ten years?
7. What caused you to choose a blended online-residential program for your teacher preparation?
8. Was enrolling in a predominantly online program your only option for undertaking a teacher education program?
9. Do you believe this program to be sufficient to prepare you for teaching compared to other types of preparation programs?
10. Should you become a teacher, what might cause you to abandon teaching as a career?

Procedure.

A mixed method was implemented to gather and analyze data. Surveys were delivered online in late spring 2009 via SurveyMonkey to all MAT students who were enrolled for summer week-long residential courses. After students arrived on campus, 32 volunteers met in focus groups of four to six students each.

Results

Who chooses teaching as a second career? Demographics.

Participants (n=311) in the survey reported a mean age of 35 years, with 77% of them being women and 15% earning their second master's degree. Undergraduate degrees were predominantly in business or psychology. These fields were likewise represented in those with master's degrees. Two of the participants reported having already earned doctorates in psychology. The top prior career categories held before deciding to switch to teaching included business, social work / health, finance, and school support staff. Participants identified

themselves ethnically as 76% White, 18% African American, 4% Latino, 1% Asian, and 1% other. See Table 1 for a summary of demographic data.

Table 1

Demographics		*n=311*
Gender	Female	77%
	Male	23%
Mean Age		35 Years
Ethnicity	White	76%
	African American	18%
	Latino	4%
	Asian	1%
	Other	1%
Educational Level	BS/BA	100%
	Master's	15%
	Doctorate	0.6%
Previous Career Categories		
Business, Sales, Management		23%
Social Work, Health, Medical, Counseling		19%
Finance, Accounting, Bookkeeping, Banking		12%
School Support Staff, Paraprofessionals		10%
Ministry, Missions, Non-Profit		7%
Technology, Communications, Broadcasting		5%
Engineering, Mechanics, Architecture		4%
Military		4%
Sports, Athletic/Personal Trainer, Coach		4%
Law Enforcement, Firefighting, Correctional Officer		3%
Service Industry, Waitress, Receptionist, Seamstress		2%
Other: Government, Design, Science, Transportation, Homemaker, Performer, etc.		7%

Reasons for switching.

In their open-ended replies to the question "Please briefly state your main reason(s) for choosing to switch your career to become a teacher," 23% of respondents offered the top reason as their love for children and desire to make a difference in their lives. The second most commonly provided answer related to their ability to teach and their enjoyment of it. Interestingly, the third most common response, given by 12% of participants, identified dissatisfaction with their previous career as their main reason for switching to teaching. The same percentage of respondents identified the sense of calling as their main reason. Noteworthy is the 10% who mentioned the economic recession. See Table 2.

Table 2

Reasons for Switching Careers to Teaching	*n=311*
Love children, want to make difference	23%
Love teaching, gifted to teach	16%
Dissatisfied with previous career	12%
Called by God, led by the Lord	12%
Economy, needed stability, lost job	10%
Family time, schedule	8%
Compatible with other interests (coaching, travel, ministry, etc.)	5%
Love for school environment, content area, learning process	5%
Involvement with my own children in schools	4%
An event (retirement, loss of spouse, health, grown children, etc.)	4%
Better myself, personal enrichment	1%

Choice of blended online-residential preparation.

Since all participants were enrolled in a blended online-residential preparation program in which 75% of the program was delivered online, they were asked to comment on their main reasons for selecting such a program and to state whether they still would have entered a teacher preparation program if the only option available were a traditional residential program. See Table 3 for a categorical summary of responses.

Nearly half (48%) stated that they would not have switched careers if such an online option were not available. Representative statements included the following:

- "There is no way I would have had the time to drive to a college and spend countless hours away from my family."
- "I could not have gone to school if I had to quit my present job before getting my education degree."

Statements representative of those 52% who still would have switched careers even without the option of the online-residential option were as follows:

- "It would have had to wait, and probably a long time, but I would have done it."
- "I would have gone to school, but it would have taken a big toll on us financially."

Table 3

Reasons for Choosing a Blended Online-Residential Program	*n=311*
Convenience, flexibility, need to travel because of military or work	37%
Family responsibilities, children, single mom	28%
Work responsibilities, must continue working full time	23%
Preferred this specific university	9%
Preferred online, needed online	3%

Why choose teaching?

The FIT-Choice Scale is divided into three parts that measure 1) influential factors for deciding to teach as a career, 2) beliefs about the profession, and 3) satisfaction level of the decision. For a comprehensive summary of factors measured by the FIT-Choice Scale, see Table 4.

Influential factors for teaching.

Likert scale responses for factors influencing teacher choice (Figure 1) aligned closely with participants' open-ended responses on the online survey as summarized above. The highest three ratings fell under the Expectancy-Value Theory category of Social Utility Value: 1) Shape Future of Children/Adolescents, 2) Work with Children/Adolescents, and 3) Make Social Contribution. The lowest ratings were for selecting teaching as a fallback career and for "bludging." Australian researchers and developers of the FIT-Choice Scale, Watt and Richardson (2007), explain that the term "bludging" is an Australian colloquialism that

> relates to people's adopting the laziest approach possible and choosing what they think will be an easy option. In the context of teaching, bludging could be based on people's perceptions about the length of the teacher's working day, as well as school holidays. (p. 173)

Table 4

FIT-Choice Scale Results *n=311*

Factors		**Item**	
Mean Ratings	**Influential Factors**	**Stem: "I chose to become a teacher because…"** 1 *(not at all important)* to 7 *(extremely important)*	
6.16	**Ability**	B.5	I have the qualities of a good teacher.
		B.18	I have good teaching skills.
		B.34	Teaching is a career suited to my abilities.

5.98	**Intrinsic Career Value**	B.1 B.7 B.12 B.38	I am interested in teaching. I've always wanted to be a teacher. I like teaching. Teaching is a fulfilling career.
1.79	**Fallback Career**	B.11 B.28 B.36	I was unsure of what career I wanted. I was not accepted into my first-choice career. I chose teaching as a last-resort career.
5.19	**Job Security** Higher Order Factor: Personal Utility Value	B.14 B.24 B.31	Teaching will offer a steady career path. Teaching will provide a reliable income. Teaching will be a secure job.
4.85	**Time for Family**	B.2 B.15 B.25	Part-time teaching could allow more family time. Teaching hours will fit with the responsibilities of having a family. School holidays will fit in with family commitments.
3.89	**Job Transferability**	B.8 B.20 B.35	Teaching will be a useful job for me to have when traveling. A teaching qualification is recognized everywhere. A teaching job will allow me to choose where I wish to live.
3.22	**Bludging**	B.4 B.17	As a teacher I will have lengthy holidays. As a teacher I will have a short working day.
6.44	**Shape Future of Children/Adolescents** Higher Order Factor: Social Utility Value	B.9 B.21 B.39	Teaching will allow me to shape child/adolescent values. Teaching will allow me to influence the next generation. Teaching will allow me to have an impact on children/adolescents.
5.76	**Enhance Social Equity**	B.29 B.37 B.40	Teaching will allow me to raise the ambitions of underprivileged youth. Teaching will allow me to benefit the socially disadvantaged. Teaching will allow me to work against social disadvantage.
6.21	**Make Social Contribution**	B.6 B.19 B.27	Teaching allows me to provide a service to society. Teachers make a worthwhile social contribution. Teaching enables me to 'give back' to society.

6.28	**Work with Children /Adolescents**	B.10	I want to help children/adolescents learn.
		B.13	I want a job that involves working with children/adolescents.
		B.23	I want to work in a child/adolescent - centered environment.
		B.30	I like working with children / adolescents.
5.49	**Prior Teaching & Learning Experiences**	B.16	I have had inspirational teachers.
		B.26	I have had good teachers as role-models.
		B.32	I have had positive learning experiences.
3.75	**Social Influences**	B.3	My friends think I should become a teacher.
		B.22	My family thinks I should become a teacher.
		B.33	People I've worked with think I should become a teacher.
Beliefs About Teaching		1 *(not at all)* to 7 *(extremely)*	
5.82	**Expert Career** Higher Order Factor: Task Demand	C.6	Do you think teaching is a highly skilled occupation?
		C.10	Do you think teaching requires high levels of expert knowledge?
		C.14	Do you think teachers need high levels of technical knowledge?
		C.15	Do you think teachers need highly specialized knowledge?
6.19	**High Demand**	C.2	Do you think teachers have a heavy workload?
		C.7	Do you think teaching is emotionally demanding?
		C.11	Do you think teaching is hard work?
4.63	**Social Status** Higher Order Factor: Task Return	C.4	Do you believe teachers are perceived as professionals?
		C.8	Do you believe teaching is perceived as a high-status occupation?
		C.12	Do you believe teaching is a well-respected career?
4.34	**Teacher Morale**	C.5	Do you think teachers have high morale?
		C.9	Do you think teachers feel valued by society?
		C.13	Do you think teachers feel their occupation has high social status?

3.31	**Good Salary**	C.1 C.3	Do you think teaching is well paid? Do you think teachers earn a good salary?
Your Decision to Become a Teacher			1 *(not at all)* to 7 *(extremely)*
3.54	**Social Dissuasion**	D.2 D.4 D.6	Were you encouraged to pursue careers other than teaching? Did others tell you teaching was not a good career choice? Did others influence you to consider careers other than teaching?
6.46	**Satisfaction with Choice**	D.1 D.3 D.5	How carefully have you thought about becoming a teacher? How satisfied are you with your choice of becoming a teacher? How happy are you with your decision to become a teacher?

Beliefs about the profession.

Generally, participants perceived teaching as a career that is high in demand and low in return. They rated teaching as a highly demanding career requiring a heavy workload and making high emotional demands. They also considered it a highly expert career entailing specialized knowledge and abilities. At the same time, participants generally viewed teaching as relatively low in social status and as paying a low salary (Figure 2).

Career choice satisfaction.

SCTs reported moderate experiences of social dissuasion from a teaching career. Regardless of this and of their perceptions of teaching as a career high in demand and low in return, the mean satisfaction rating for their choice to switch careers was high (See Table 4).

Focus group results.

The in-depth focus group interviews confirmed many of the survey responses above. However, the purpose of these interviews was to probe the individual stories, to identify recurring themes in those stories, and to gain a greater understanding of the profile of SCTs. Many of the focus group members explained that they did not initially choose teaching because others swayed them against it, often their parents. One in particular spoke of how her parents convinced her to earn a bachelor's degree in business because she would be more marketable, able to obtain a job in a variety of fields. "Ironically, I think the degree hindered me in pursuing anything specific," she said, "and I regretted not having

Figure 1
Influential Factors for Choosing to Teach

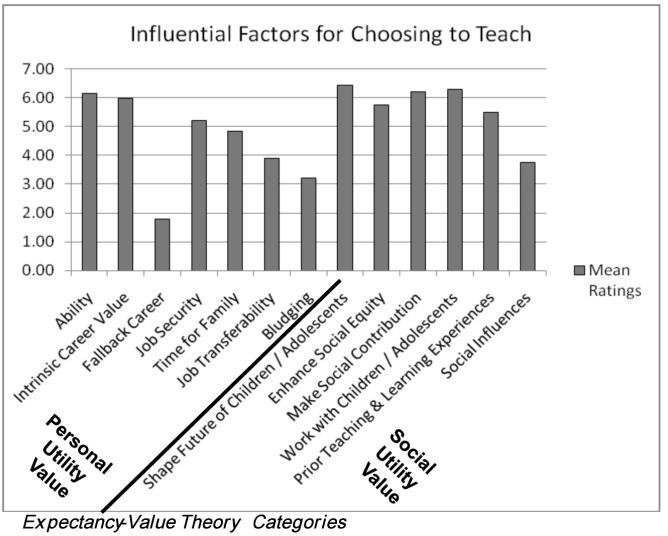
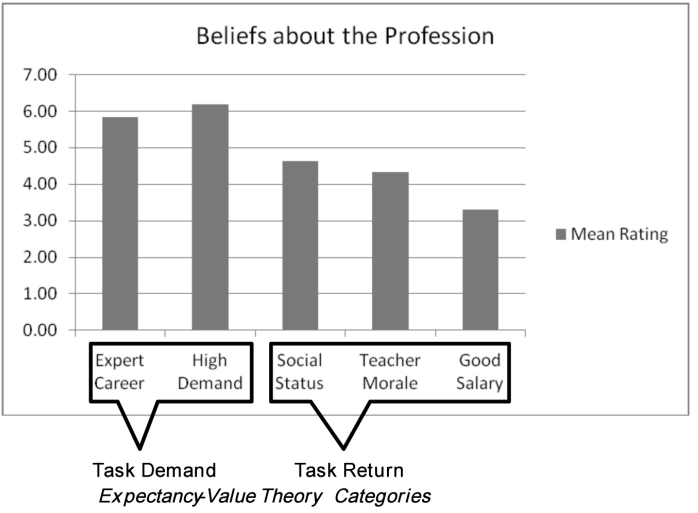


Figure 2
Beliefs about the Profession



pursued teacher education like I wanted to in the first place." Others confessed that they considered education as an undergraduate major but instead chose other degrees in hopes of earning more money.

Motives for choosing to switch careers to teaching aligned closely with survey results. By far, altruistic themes of making a difference in the lives of young people prevailed. However, the stories of job losses, failed businesses, and drained industries were consistently mentioned in each of the six focus groups and brought the most probing responses from listeners. A researcher for a prominent pharmaceutical corporation told of how much she enjoyed her work but that economic cutbacks necessitated the closing of her branch of the department. This forced her to consider other options, and teaching seemed to be a stable job where she could apply her love for science. Another spoke of how her real estate business began to provide an inconsistent income for her family as the market dried up. This led her to consider teaching, which would provide her a lower income but a more dependable one.

Another theme relating to motivating factors for changing careers had to do with the participants observing their own children's experiences in schools. Some were so pleased with how the schools dealt with their own children's special learning needs that they were drawn to special education as a means to "pay it forward." On the other hand, there were parents of children with special learning needs who were so disappointed with the services the schools provided them that they were motivated to enter special education to improve the experience of other families.

One question asked participants to speculate what they would be doing five to ten years in the future. The prevailing theme was that they wanted to be enjoying success in the classroom. There were, however, a variety of responses that did not include the careers they were preparing for presently. Responses included the following: children's author, principal, school counselor, and starting a private school. Possibly one of the most telling responses was, "Ten years from now, I'd like to be retired." This comment came from a 61-year-old career switcher. Though the average age of participants in the FIT-Choice Scale was 35, there were several in their 50s and even early 60s.

The question of the sufficiency of a blended online-residential program to prepare candidates to be effective teachers brought out a defense of the value of life experience. While only a few commented on the importance of micro-teaching opportunities residential courses can provide, many others stated that they believed the program to be sufficient considering the variety of life experiences older preservice teachers bring from their previous careers. As one interviewee put it, "I would much rather my child be in a classroom with a 40 year old who had earned a master's online, had children of her own, and had run her

own business for years than to be in a classroom with a 22 year old who got her teaching training in a traditional program."

Discussion

As an increasing number of career switchers enter the ranks of school faculties, many of them will be doing so with different motives and preparation experiences than have been typical of second-career teachers of the past. While those of the present and past share common altruistic desires to work with children and to make a difference in their lives, the recent recession has drawn many to switch to teaching who would not have done so otherwise. The results of this study found that 12% were motivated to switch to teaching out of dissatisfaction with their previous occupation, and 10% cited the economic recession. Although previous studies reveal high performance levels and qualities of SCTs valued by school administrators, this new influx of SCTs may bring new challenges to instructional supervisors. Whatever their reasons for switching, SCTs anticipate a higher task demand than return and a higher utility value to society than to themselves. These expectations and their rich diversity of life experiences will likely enhance their ability to impact student achievement.

A key finding of this study was that nearly half (48%) of the 311 participants claimed that they would not have chosen to switch careers without an online preparation option. With the teacher shortage growing in severity, online preparation programs may provide the flexibility potential teachers need to finalize their decision to pursue a career switch. However, the question remains whether teachers prepared in programs that are predominantly online will be as qualified as those prepared in traditional universities or face-to-face alternative licensure programs. The need exists for studies to examine the performance levels of SCTs in the field who were prepared in predominately online programs and also those who chose teaching mainly for economic reasons. Are they as effective as typical first-career teachers? How do their longevity rates compare? Do they have special induction and supervision needs?

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