TEACHER EDUCATION & DEVELOPMENT | RESEARCH ARTICLE

Experiencing the needs and challenges of ELLs: Improving knowledge and efficacy of pre-service teachers through the use of a language immersion simulation

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Abstract: Pre-service teachers need to understand how to support ELLs in their future classrooms, yet evidence suggests that pre-service ELL training may not be as effective as we need it to be. One promising strategy for increasing pre-service teachers’ efficacy and knowledge around teaching ELLs is through a shock-and-show simulation. This strategy incorporates a Swedish-language immersion experience that simulates what it may like to be an ELL and the strategies that can help support these students. There were two phases: a lesson with limited scaffolding (shock) and an extensively scaffolded lesson (show). Our participants included 87 pre-service teachers who filled out pre- and post-surveys, including closed- and open-ended questions. t-Tests were used to determine whether differences in the scores from the two surveys were significant. We analyzed qualitative data using an interpretive approach to the development of codes, categories, and themes, which we triangulated with descriptive statistics to describe the frequency of the emergent

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PUBLIC INTEREST STATEMENT

We recognize that teachers often struggle to connect to students who are unlike themselves. In particular, for many English-only pre-service and in-service teachers, it is difficult to grasp why English Language Learners (ELLs) require so much support. This lack of understanding on the part of new teachers may lead them to discard the kinds of teaching practices—learned in their teacher education programs—that are helpful to ELLs, but which also require greater effort on the part of the teacher. In turn, teachers sometimes also blame ELLs for their failures, claiming that they are not trying sufficiently or don’t care about their learning. The shock-and-show language immersion simulation may help teachers to recognize the nature of the challenges facing their EL students, while also seeing firsthand how the strategies they are learning about impact their own learning as they try to navigate a lesson in an unfamiliar language.
codes. Our findings suggest that shock-and-show experiences may benefit pre-service teachers’ knowledge and efficacy around ELL instruction. We theorize that the emotional component of the experience connected to the cognitive aspects may help foster greater learning among pre-service teachers concerning the difficulties and needs of ELLs.

Subjects: Bilingualism / ESL; Initial Teacher Training; Teacher Training; Teachers & Teacher Education; Teaching & Learning

Keywords: ELLs; simulation; language immersion; pre-service teacher training; empathy; emotional learning; SIOP strategies; teacher beliefs; experiential learning; teacher efficacy

1. Introduction

Open almost any journal or textbook on education and it does not take long to find the statistics highlighting the struggles of English language learners (ELLs) in our classrooms. With the percentage of ELLs in a classroom climbing faster than the English-only (EO) population at 51% vs. 7.2% (Education Week, 2011), the need for improved pedagogy is clear. While professors can espouse the need for visuals, building background knowledge, and sentence frames, pre-service teachers do not always internalize such strategies or fully understand their helpfulness for ELLs.

In order to address this concern, we developed a shock-and-show simulation activity that we then implemented in a colleague’s classroom. This simulation, which immersed pre-service teachers in a lesson in an unfamiliar language, was designed to impact their orientations and improve their knowledge resources related to ELL instruction. In this paper, we report on our initial findings that reveal changes in pre-service teachers’ perceptions around teaching and learning with ELLs, their perceived understanding of ELLs’ experiences, and their confidence in teaching ELLs.

2. Theoretical support

Schoenfeld (2011) put forth the theoretical proposition that teachers’ behaviors could be understood in terms of their orientations, goals, and resources. In using the term orientations, Schoenfeld attempted to bypass the conceptual morass that typically has tried to separate beliefs (confidently held ideas), attitudes (mental or behavioral tendencies toward particular phenomena), dispositions (frames of mind), values (the weight and desirability of certain ideas), and other related concepts. On the contrary, he argued that each of these concepts interact to create propensities within the individual to act in a particular manner or to be oriented in a certain way. Goals was the most straightforward of his concepts; he argued that goals were “something that an individual wants to achieve, even if simply in the service of other goals” (p. 20). Finally, resources enabled teachers to act upon the goals and put into action the orientations they held. Importantly, Schoenfeld argued that knowledge is a particularly relevant resource to bringing one’s goals into action. Without the knowledge with which to bring one’s goals into reality, he argued, it was unlikely that they would succeed; more likely, teachers would fail and abandon those goals for more readily achievable aims. This finding remains particularly relevant for pre-service and novice teachers who may lack the relevant knowledge to enable them to work effectively with ELLs.

Our study attended to two features of Schoenfeld’s framework; specifically, we attempted to address pre-service teachers’ orientations around teaching ELLs (i.e. that it is important, that it is readily accomplishable) and around ELLs themselves (e.g. challenging deficit perspectives and realizing that students can learn despite linguistic challenges, and empathizing with the experiences of ELLs). Further, it aimed to provide these teachers with experiential evidence that the use of specific Sheltered Instruction Observation Protocol (SIOP) strategies (Echevarria, Vogt, & Short, 2007) fundamentally impacts ELLs’ capacity to learn and provide teachers with resources to facilitate this learning. The SIOP model is an empirically validated mode of ELL instruction (Short, 2013), intended as a “school-wide, comprehensive intervention in an effort to support
ELLS across the core content areas” (Echevarria & Short, 2011, p. 1). The observation protocol seeks to identify the degree to which teachers employ 30 instructional practices, broken down into eight sections: lesson preparation, building background, comprehensible input, strategies, interaction, practice and application, lesson delivery, and review and assessment (Echevarria, Vogt, & Short, 2014).

Although goals, as defined by Schoenfeld, were not specifically addressed in our study, we argue that by providing the means to materially impact both pre-service teachers’ orientations around the needs of language learners and means to enact pedagogical practices that effectively attend to the needs of language learners, we open up the possibility that pre-service teachers will establish the goals that lead them to do so when they enter the profession.

3. Related literature

3.1. Teacher preparation

There has been an increased awareness of the need for teacher education programs to improve their preparation of pre-service teachers to meet the needs of ELLs (Hutchinson, 2013; Jimenez-Silva, Olson, & Jimenez Hernandez, 2012; Levine, Howard, & Moss, 2014; Pettit, 2011) since, generally speaking, teachers have been underprepared to work with ELLs (Echevarria et al., 2007). Pettit (2011) argued that there was a “poverty of language learning” in teacher education, meaning that teachers completed their certification/endorsements without adequate knowledge of second-language acquisition, multicultural education, or appropriate pedagogy for ELLs. Pettit also contended that since many in-service teachers had not learned a second language, they were unaware of how difficult it can be to be a language learner. Furthermore, because most pre-service teachers have not shared the social, cultural, economic, and academic experiences of ELLs, it could have been difficult for these teachers to relate to the experiences of ELLs (Jimenez-Silva et al., 2012).

Hutchinson (2013) argued that teacher preparation programs are the best time to help teachers develop the skills and understanding needed to support ELLs. According to her, hands-on experiences and engagement in best practices were more effective than lectures for pre-service education. In a study by Jimenez-Silva and colleagues (2012), they found that interactive instructional strategies contributed to their students’ confidence at the “very much” level for 79% of the students. Group activities rated 70%, and lectures only 36%. Like for many learners of all ages, learning by experiencing has been highly effective.

Beyond preparedness, researchers have found that many secondary teachers, while generally welcoming of ELLs, are ambivalent about implementing extensive scaffolding and engaging in professional development, and struggle with their ability to challenge ELLs without discouraging their efforts (Gándara, Maxwell-Jolly, & Driscoll, 2005; Reeves, 2006). Moreover, teachers have often worked “under misconceptions of how second languages are learned” (Reeves, 2006, p. 137). Cho and Reich (2008) identified a number of challenges perceived by social studies teachers including ELLs’ lack of background knowledge, lack of motivation, and the existence of language as a barrier to learning. Further still, given text-driven curricula (Cruz & Thornton, 2009; Short, 1998) and a deficiency in adequate training and support, teachers working with ELLs may exacerbate these challenges (O’Brien, 2011).

Classroom teachers need to be able to scaffold the learning for ELLs. In order to do this, they need “familiarity with the students’ linguistic and academic backgrounds; an understanding of the language demands inherent in the learning tasks that students are expected to carry out in class; and skills for using appropriate scaffolding so that ELLs can participate successfully in those tasks” (Lucas, Villegas, & Freedson-Gonzalez, 2008, p. 366). Levine et al. (2014) took a more expansive stance, arguing that appropriate preparation of all teachers to work effectively with ELLs “can hasten the contributions we expect from the latest newcomers to the US while strengthening the fabric
of our diverse society” (p. 6). They argued further that this need to train teachers was not unique to the US or even the developed world, but to far-reaching places across the globe where people have moved or been displaced from their linguistic homes.

3.2. Teacher orientations

It has been difficult for scholars to agree upon a definition of teacher beliefs, and the idea of beliefs remains a “messy construct” (Pajares, 1992, p. 327). Schoenfeld’s (2011) conceptualization of orientations as a constellation of terms helps to bypass some of the conceptual messiness associated with trying to differentiate belief from disposition, values, etc., when these selfsame concepts are often used in concert to attend to the same phenomena. Although Nespor (1987) and Ruys, Van Keer, and Aelterman (2010) framed their ideas in terms of beliefs, their work served to bolster Schoenfeld’s conceptual definition. Nespor (1987) argued in his seminal study on teacher beliefs that beliefs are “conceptual systems” used to explain a “domain of activity,” and may serve to include or exclude information belonging to the domain in question (p. 326). Ruys et al. (2010), in turn, defined teacher beliefs as “a set of representations guiding their [teachers’] concept of learning and instruction and their role in that process” (p. 539). These sets of representations may not, as Schoenfeld (2011) explained, always be expressed explicitly as beliefs, and may instead manifest as dispositions, values, preferences, etc. As such, orientations is a more appropriate term to describe the constellation of concepts teachers may use to explain and direct their teaching practice.

It is clear that teacher beliefs play a key role in the development of teachers’ actual practice (Nespor, 1987; Sackett, 2006). Teachers’ beliefs about their students may play a significant role in the formation of their professional orientations, which in turn, have significant effects on student learning (Helm, 2007) and student achievement (Bean, 2009; Cline & Necochea, 2006; Shanahan & Beck, 2006; Toll, 2005). Since teachers’ orientations are so central to their practice, it is essential that they be founded on accurate understandings of the students that they serve.

Because teachers generally lack exposure to minority communities and the lived experiences of people within them, some teachers have or develop negative attitudes toward ELLs, and hold stereotypical views of students who come from non-majority backgrounds (Cho & Reich, 2008; Pettit, 2011; Zeichner, 2003; Zygmunt-Fillwalk & Leitze, 2006). Without appropriately scaffolded instruction and guided experiences, it is little wonder that teachers form beliefs around preexisting outsider perceptions, often based around stereotypes. Thus, one of the main purposes of teacher education is to positively shape the beliefs and attitudes of pre-service teachers. Teacher educators hope to do this by helping to bring about change in attitude, cognition, and inquiry (Toll, 2005), because “… although beliefs are highly resistant to change, depending on how beliefs are defined, it is possible to change them through effective professional development or coursework so that ELLs will have greater success in mainstream classrooms” (Pettit, 2011, p. 123).

3.3. Teacher efficacy

Jimenez-Silva et al. (2012) defined teacher efficacy as “teachers’ beliefs about their own capacities as teachers” (p. 11) and Klassen, Tze, Betts, and Gordon (2011) similarly defined teacher efficacy as “the confidence teachers hold about their individual and collective capability to influence student learning” (p. 21). They argued that efficacy influences teachers’ practices and student learning outcomes. This has been echoed by others such as Ross (1992), who found that history teachers’ personal teaching efficacy was related to higher student achievement. Additionally, teacher efficacy has been associated with other aspects of teachers’ practices, including persistence and commitment (Tschannen-Moran & Hoy, 2001), which we argue are necessary qualities for teachers to address the persistent challenges they face in their classrooms, including providing quality instruction to ELLs. Moreover, not enough is yet known about how domain-specific teacher efficacy plays out (Klassen et al., 2011), but it is possible that teachers who may be confident in their own subject area
may lack efficacy to teach ELLs effectively. Thus, teacher efficacy specific to teaching ELLs is essential to teachers’ actual implementation of curricula that effectively supports ELLs (Jimenez-Silva et al., 2012).

3.4. Policy shift
Although there are classrooms, schools, districts, and states that insist on an “English only” policy, there is an increase in educational research and policies that support linguistic diversity in the classroom. Under the No Child Left Behind Act (NCLB) of 2002 section entitled Improving Language Instruction Educational Program For Academic Achievement Act, school personnel are expected to support ELLs in meeting content and academic achievement standards by a variety of measures including, “developing language skills and multicultural understanding” and “developing the English proficiency of limited English proficient children and, to the extent possible, the native language skills of such children” (US Department of Education, 2002, p. 45). Other parts of NCLB support using materials in students’ first language as well. In other words, NCLB does not support restricting classroom language use to English only, even while some states have instituted this monolingual policy. In the context of this study, however, Connecticut policy documents allow and encourage the use of language learners’ first languages as they strive to learn both content and a new language in ESL classes delivered in English (Connecticut State Board of Education, 2010).

3.5. Immersion studies
Here we define immersion as activities—regardless of their duration—in which pre-service teachers are given the opportunity to experience what it is like to lack an understanding of the language necessary to succeed in a given context.

3.5.1. Long-term immersion
Although immersion experiences for practicing or pre-service teachers have not been well researched, the existing research has focused more on the extended immersion experiences, such as month-long experiences in a country where citizens speak a language other than English (e.g. Nero, 2009). Emerging research has supported these experiences in that they do challenge teachers in their conceptions about language ability and learning processes, increase empathy for second-language learners, support their understanding that culture and identity is complex, and finally, highlight the need for culturally responsive curriculum (Nero, 2009). The emotions involved with immersion and language learning could help teachers and future teachers understand the needs and feelings of ELLs better (Gutiérrez & Hunter, 2012). Urban Semester Programs, which are long-term immersions off-campus, but still in the US, provide students with positive modeling and have also been demonstrated to have positive impacts upon students’ perceptions of diverse student populations, which include ELLs (Zygmunt-Fillwalk & Clark, 2007; Zygmunt-Fillwalk & Leitze, 2006). Both study abroad and off-campus programs are beneficial. However, the reality of time and/or money makes such experiences unfeasible for many pre-service teachers.

3.5.2. Language-shock experiences
A language-shock activity is one where an instructor provides instruction in another language in a context where students would normally expect to use the dominant language of instruction. The existence of research on implementing short immersion experiences and activities is similarly scant. The only article we could find was a practitioner’s account of the activity and her perceptions of student learning. In her article, Washburn (2008) reflected positively upon her use of a language-shock activity where she made her students try to read an elementary Chinese workbook to understand how to write numbers in Chinese. She described her students’ sense of frustration and isolation, which helped to give them a sense of what it may be like to be a language learner. In a recently published volume regarding the preparation of teachers to support ELLs, the authors reported that participants raised language-shock activity as one of the most helpful practices in their preparation (Wright-Maley, Levine, & Gonzalez, 2014). Our intervention provided students with both a language-shock activity and a model lesson from which to learn strategies to support the learning of ELLs; we have therefore labeled such an experience as shock-and-show simulation.
4. Research design

4.1. Participants and setting
The selection of our site and participants was based on a convenience sampling, insofar as a former colleague taught several sections of a class on ELL instruction for mainstream teachers. We conducted our study at a large urban university in Connecticut. Our sample included a total of 87 pre-service teachers who were not specializing in ELL instruction. Rather, these participants specialized in a variety content-specific disciplines (e.g. social studies, physical education, English, science, etc.). They were enrolled in one of three sections of a course on second-language acquisition and teaching ELLs that was a degree requirement. This population was targeted because it is of growing importance to prepare all teachers across each of the major content areas to work effectively with ELLs (Levine et al., 2014). In addition, Connecticut State Board of Education (2010) has emphasized that it “believes that research-based instructional practices that support ELLs in general education classrooms are essential while they are acquiring English and well after they have exited the intensive programs” (p. 1). The selection of this population reflects this official position.

The participants were 79% female, 21% male; and 93% were native English speakers, and the remaining indicated that English was not their first language. These demographics were not considered in the selection of participants. t-Tests confirmed that there were not significant differences between females and males.

4.2. Intervention
In designing our intervention, we considered both the impact that language-shock activities may have on pre-service teachers’ orientations as well as their need to have the tools to teach ELLs effectively. As such, we created an experience that would do both—the shock-and-show experience.

4.2.1. Language and content
In creating an immersion experience that attempted to simulate the experience of ELLs, we had to consider both the language and the content. Swedish was selected as the language of instruction, both for convenience (one of the researchers spoke Swedish) and because we could be assured that few, if any, students spoke any Swedish or related languages. As for content, we wanted to teach information that would be new so that students would experience learning content through an unfamiliar language, just like ELLs need to do, since “language is both the content and the medium for student learning” (Coady, Harper, & de Jong, 2011, p. 226). The content compared the structures of three governments: the US, the UK, and Sweden. The lesson and all related materials were entirely in Swedish, while the debriefings were done in English. The lesson has two phases—a version with limited scaffolding (shock) and a longer, extensively scaffolded version (show).

4.2.2. Language shock
The immersion experience started with the researcher passing out a reading in Swedish with questions on the bottom and a list of vocabulary words with definitions on the back. Directions were given in Swedish. Students were shushed if they tried to work with a neighbor and told in Swedish that they were to speak Swedish only. Enough time was given for students to exhaust their efforts to answer the questions (also written in Swedish). The instructors did not ask content questions during this first phase, given the lack of success students typically experience during this part of the lesson. Following this brief activity, students were asked in English about their feelings, the challenges the activity presented, and the strategies they used to try to succeed.

4.2.3. Show (model lesson)
In the second phase of the immersion experience, students were guided through the content in Swedish using a variety of instructional strategies, derived, in part, from the SIOP model (see Echevarria et al., 2007), including visuals with associated vocabulary and content. Using each feature (makeup of government, leaders, buildings, number of representatives, etc.), the researcher stopped to make comparisons between governments using sentence stems using the vocabulary
such as (translated from Swedish) *The United States has a president, but Sweden has a prime minister. Great Britain and the US have two chambers.* These sentence structures (using and and but) were modeled by the researcher and practiced by the students multiple times using different content vocabulary.¹

Following the whole-class instruction, students were encouraged to work with partners to complete sentence frames together, which some then shared with the whole class. Students were allowed to use English to communicate with their partners. The rationale for this was to demonstrate how helpful it is to allow L1 communication in classrooms (which is, anecdotally, frequently discouraged by teachers). However, the researcher used only Swedish when speaking with students. Finally, students were given the reading from the first phase again. This time, the reading was scaffolded—questions followed immediately after the relevant information in the reading, key vocabulary was bolded, and the vocabulary list included visuals to clarify the meaning of the words when the written definition alone proved unhelpful. A few students then shared their answers in Swedish.

Finally, the second version of the lesson was debriefed in English. Students were again asked about their feelings, how the second phase differed from the first (in terms of their ability to make use of the content), and to think metacognitively about why the scaffolds used helped them to understand the material more effectively.

5. Methods and analysis
Pre- and post-survey data were used to document changes in student thinking. Informal observations were not included in the research design. The survey was informed by one developed by Levine et al. (2014) for use with pre-service teachers at their institution to collect data on teacher self-efficacy at five time-points throughout the three-year integrated bachelor/master’s program to document changes in efficacy over time. The pre-survey, given just prior to the immersion experience, included 26 statements on a six-point Likert scale, ranging from *Strongly Disagree* (1) to *Strongly Agree* (6). These statements focused on dispositions, efficacy, and knowledge of strategies, the purpose of which was to determine whether there were significant changes in students’ thinking in these three domains. The post-survey was given at the next class, the following week. In addition to the same statements from the pre-survey, the post-survey also included qualitative, open-ended questions for students to answer such as *How, if at all, did your thinking about teaching ELLs change as a result of the demonstration lesson?*, and demographic information.

We utilized a paired t-test to determine if the scores from the pre-survey to the post-survey were significantly different. First, a research assistant entered in the survey data, and a second reader checked 10% of the entries. No errors were found. Then, mean scores were computed for each question in the pre- and post-survey along with the differences in those scores using SPSS. Paired t-tests were used since the scores were repeated measures (Leech, Barrett, & Morgan, 2011).

We utilized an interpretive approach to our qualitative analysis, that was borrowed from the method that Merriam (2009) described as “basic qualitative research” (p. 21), and from thematic analysis (Alhojailan, 2012), which employs the use of data tabulation, contextual statements, and reduction of the data into themes. In Merriam’s approach to data analysis, she advised that the researcher begins with the identification of data segments that reflect possible answers to the research questions. During this process, it is necessary to allow themes and trends to emerge from the data (Thomas, 2006). Following from this initial identification of codes, we began forming tentative categories using analytical coding (Merriam, 2009), used to combine codes that are interpreted to be related in terms of meaning. The tentative categories were then evaluated to ensure that they helped to organize data in ways that answered the research questions, were distinct, thorough, and complete, informed potential readers of the codes contained within them, and that each reflected the “same level of abstraction” (Merriam, 2009, p. 186), and that they were representative of the data as a whole (Alhojailan, 2012).
In order to do this, we captured key words that participants used in their open-ended responses such as “frustrating,” “exhausting,” “challenging,” etc. and grouped them together in clusters with words that shared those meanings. For example, “challenging” was clustered with words such as “difficult,” “hard,” “burden.” Responses were kept in context so as not to lose the participants’ intended meanings and to ensure that unique responses that included multiple words in the same cluster were not double-counted. After these clusters were established, a second reader was again used to ensure the validity of these clusters, by challenging the intended meanings of the coded key words within them based on the context provided by the respondents. Additionally, we employed descriptive statistics to describe the frequency of the words positioned in categorized clusters. Participants’ written responses were edited for grammar and spelling without changing the meaning of the responses.

6. Limitations of design
This study was designed as an exploratory investigation that was intended to determine whether further research was warranted. Because of the nature of this study, we opted to forgo the use of a control group. For the sake of transparency, we have chosen to include our quantitative findings, but we caution readers not to draw decisive conclusions from these data without pursuing this research further; however, the results discussed in this paper may help to draw attention to an area of research that has received little attention to date. Téllez and Waxman (2006) argued that pre-service teacher education around the instruction of ELLs has been ineffective for a number of reasons, including the devaluation of the home language and the singular focus on skills. We believe therefore, that any of the changes suggested by the findings of this study offer insight into practices that warrant further investigation. Further, in reporting the findings of this study, we have chosen to emphasize the qualitative findings, which reveal substantive responses from the participants that are indicative of their changing views on ELLs and the practices that support them.

7. Findings
Among our findings, one area did not show significant change; whereas two major themes emerged. First, statements that tested specific value statements around ELLs and the factors that determined their success, or lack thereof, did not demonstrate change from the pre- to post-survey responses. The two major themes that emerged as both quantitatively significant and qualitatively substantive centered on understanding what ELLs experience in the classroom and an increase in confidence in being able to teach ELLs effectively, reflective both of pre-service teachers orientations and perceptions of their newly acquired knowledge resources. We will look at each in detail.

7.1. Value statements
We put a number of value statements about ELLs on the survey as well to determine whether a short intervention would impact certain values that pre-service teachers might hold about ELLs. Statements included those such as “ELLs struggle because they don’t have enough support at home,” and “Expecting teachers to cater more to ELLs takes away from the learning of native-English speaking students.” Only one of these items, “It is reasonable for teachers to be held responsible for the achievement of their ELL students,” showed a significant increase (p < .004). Every other value statement showed no significant change (p < .05).

Although our intervention did not show any significant changes in this domain, there were qualitative data that suggest it may be possible to nudge participants’ beliefs over time, even if those changes may not manifest significantly in the short term. Take for instance, the statement “ELLs struggle because they don’t care as much about school as much as mainstream students do.” Several statements offered by participants revealed that the intervention may have given them pause. One discussed that he or she was now sure ELLs’ struggles were “not about lack of effort, but rather it is completely overwhelming and stressful.” Another explained, “It increased my awareness of ...why they would or could become discouraged.” A third participant revealed, “It became quite apparent how detrimental my preconceived notions of ELLs can affect their success and function in our society.” Thus, while the quantitative measure of this domain did not capture any significant shifts, the qualitative data hint that such changes in belief may yet be present.
7.2. Language learner experience

The largest change in our survey was for the question “I understand what it is like to be a second language learner” with a dramatic 2.41 point change (p < .001) on a six-point scale, moving from a mean of 2.73 (2 = disagree; 3 = slightly disagree) to a mean of 5.14 (5 = Agree). The statement “I am confident I can describe challenges many ELLs face as they learn concepts and skills in the specific subject(s) I teach” showed a gain of 1.37 points (p < .001), from slightly disagree to slightly agree.

Table 1 shows the shifts in the different levels. For example, in statement 7, there were 31 participants who selected strongly disagreed and 19 who selected disagree that they understood what it was like to be a second-language learner prior to the immersion experience. In the post-survey, no one strongly disagreed or disagreed. Although the numbers were not as large in statements 15 and 29, there was a similar pattern with no strongly disagree or disagree scores in the post-survey.

These findings are supported by the qualitative responses as well. The first two qualitative questions on the post-survey asked participants to comment on what insights they had gained “into the experiences of ELLs” and how their “thinking about ELLs” may have changed. The most common responses to these two questions highlighted participants’ perception that they now better understood what it must be like to be an ELL or how ELLs must feel (67 responses), this was followed by their experience that the learning process is difficult for ELLs (35 responses), that the experience is frustrating (19), distressing (15), taxing (10), discouraging or demotivating (9), and that the experience led some participants to disengage from learning task (9). These insights will be further elucidated below.

7.2.1. Increased understanding

In terms of participants’ understanding of the ELL experience, we coded for “understanding” only when the participant explicitly indicated that they were more understanding or sympathetic of the ELLs or their experiences. For example, one student commented, “this lesson was a reality check for how ELLs feel.” Another explained, “I never fully understood how it felt [to be immersed in a different language], what it felt like to react, and what kinds of challenges I would be faced with. This gave me a whole new perspective!” A third noted that it “made me sympathize with them [ELLs] and understand why they do what they do.” Still another wrote, that they now “have a point of reference for the emotions of students in the same situation.” This last comment was further reinforced by the sentiment that teachers should be more sensitive and patient with their ELLs as revealed by 13 students’ responses to the question “What would you say was the most important lesson you learned?” These finding are reflected in the survey question responses with difference in pre- and post-survey scores showing significance such as “I have an understanding of the challenges associated with learning a new language,” at the p < .001 level. As stated earlier, students’ responses to the prompt, “I understand what it is like to be a second language learner,” demonstrated the largest growth in score means (2.40 points).
7.2.2. Difficulty
Our second most salient finding regarding the experiences of ELLs from participants was how challenging it was to operate in a foreign language. Many of our participants commented simply that “it’s really difficult to be an ELL,” while others elaborated in greater detail. For instance, one participant stated, “it just gave me a first-hand experience into the burden it can be to be an ELL student. Aside from the cognitive issues, I am more aware of the social/emotional ones as well.” Another wrote that it was “a great opportunity to pretend or see what it’s like to be in an ELL’s shoes. How difficult it must be to concentrate and to focus. It must also be challenging in many more ways that [I] previously thought.”

7.2.3. Frustration
Some students found “the frustration of not being able to speak” memorable. Some stated that it was frustrating when “you don’t understand” the language of instruction or “if the teacher does not try to modify the lesson.” One explained that the first part of the lesson (the typical lesson) was “extremely frustrating … I wanted to understand so badly in the 1st version, but I couldn’t because I didn’t have the tools to.” Perhaps most interesting was one student’s insight about the difference between learning a language in formal and informal settings: “I’ve been in settings where I didn’t know the native language, but it was typically when travelling—not an academic setting. It [the lesson] was highly frustrating.”

7.2.4. Distress
For some students, the activity was “emotionally distressing.” Other students highlighted their distress as a prominent feature of their experience. “It is completely overwhelming and stressful—not in the least bit easy.” Another stated, “I became more aware of the emotional distress the learner feels.” Still others made the connection between their distress and the pedagogical choices teachers make: “It’s really hard and stressful if the material is presented in the wrong way.” Further another student explained that although the experience was “overwhelming,” our instructional choices helped the participant cope “by breaking down the language into key terms and visuals, I was able to decode what was being asked of me.”

7.2.5. Exhaustion
Some students described the experience as “tiring,” “absolutely exhausting,” and “draining.” Further, others noted that ELLs “have to try much harder than the typical student. A teacher should keep that in mind. ELLs are in an unfamiliar environment and cognitively have a lot to process.” Another explained, “It is a challenge and exhausting to stay so attentive and try to follow along.” We ask the reader to keep in mind that these feelings of exhaustion occurred within a single period of instruction.

7.2.6. Discouragement and demotivation
A number of participants described that they now understood “why they would or could become discouraged,” or that it “was very easy for students to become discouraged” unless the teacher makes the effort to modify curriculum and encourage their students. “Without communication, interactive engagement and support from peers,” wrote one participant, “it can be frustrating and [cause students to be] less motivated.” One participant’s insight into motivation came veiled as a critique of his peers, noting that “the motivation of students as well as their attitudes really seemed to have the biggest effect on what they got out of the lesson.” But others insisted that the lack of motivation wasn’t “about lack of effort.”

7.2.7. Disengagement
A few students also described how they had difficulty staying engaged in the lesson, noting that they felt bored, found it difficult to focus, and tuned out or zoned out. In each of these cases, the participant attributed their disengagement as resulting from their lack of understanding. As one explained, “I learned why students seem to be bored in class, it’s because they don’t understand
what’s going on so they stop trying to understand because it’s hard.” Another echoed this sentiment with their experience as the measure: “Being talked at and not understanding is very difficult and boring. I understand why it is so easy to tune out others when it is difficult to understand them.”

7.3. Increased confidence with strategies
The second theme that emerged was participants’ confidence in strategies and their ability to work successfully with ELLs. One of our qualitative survey questions asked participants to describe how their level of confidence changed as a result of the intervention; 54 participants stated that their confidence had increased with some indicating a significant increase (8), moderate increase (29), and slight increase (17). The “moderate” increase included those who simply stated that their confidence “changed” without giving it a level of intensity. Several participants noted being more confident, but still being “nervous” or “scared” (4) about working with ELLs. The increase in confidence noted in participants’ written responses was similarly reflected in the quantitative results of the survey.

There were five statements referencing participants’ confidence in describing strategies or required language skills, six statements related to confidence in the ability to implement strategies and draw upon students’ strengths, and one statement, “I feel prepared to teach ELLs.” In all 12 statements, participants’ responses demonstrated significant \( p < .001 \) changes in confidence and perception of knowhow. The largest change in mean among this cluster of responses was for the statement “I feel prepared to teach ELLs” with a mean shift of 1.57 points from disagree to slightly agree. The next two largest changes were 1.37 for “I am confident I can describe pedagogical strategies that help ELLs learn concepts and skills for the subject(s) I teach” from mean of 3.01 (3 = slightly disagree) to a mean of 4.39 (4 = slightly agree); and 1.37 for “I am confident I can effectively implement strategies that help ELLs learn the content for the subject(s) I teach” from a mean of 3.23 (3 = slightly disagree) to a mean of 4.6 (5 = agree). Table 2 highlights three examples of the shifts in scores.

The immersion experience did not affect the level of confidence of 21 participants, who reported, “It did not change.” This qualitative statement did not align with their reported scores on the 12 statements referencing confidence in teaching. In a paired t-test, only one statement was not significant at \( p < .05 \) level and seven of the 12 statements were significant at the \( p < .005 \) level for these 21 participants. This reflects a similar finding with the participants as a whole.

When asked to name one lesson, they would take away from the intervention and how their thinking about teaching ELLs had changed, the most common response (37) from students was that they

<table>
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<th>Table 2. Sample survey statements on confidence</th>
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<td><strong>Confidence in teaching (sample statements)</strong></td>
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<td>20. I am confident I can describe pedagogical</td>
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<tr>
<td>strategies that help ELLs learn concepts and</td>
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<td>skills for the subject(s) I teach</td>
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<td>21. I am confident I can effectively imple-</td>
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<td>ment strategies that help ELLs acquire more</td>
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<td>sophisticated English language vocabulary and</td>
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<td>grammatical structures</td>
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<td>31. I feel prepared to teach ELLs</td>
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Notes: SD: strongly disagree (1); D: disagree (2); SID: slightly disagree (3); SIA: slightly agree (4); A: agree (5); SA: strongly agree (6); M: mean.

*Significant at the \( p < .001 \) level.
had learned “many strategies that can be used to make content more understandable,” and now understood “how to use the strategies to get through to ELLs.” Connected to this insight was the notion that how you modify your instruction for ELLs “can make all the difference” (24) and that “teaching ELLs is completely possible” (22).

Our participants also named strategies that were salient to their experiences. These strategies were discussed by multiple participants and coded across each of the open-ended questions. The most remarked upon strategies included “visuals” (47), “grouping”/“interactivity” (22), “background knowledge” (17), “graphic organizers” (16), “context cues” (15), “repetition” (12), “body language”/“gestures” (9), and “models” (7). Several students (13) mentioned using multiple strategies, without naming any in particular.

8. Discussion
Our findings resonate with the description Washburn provided about her classes’ reactions to a language-shock simulation conducted in Mandarin (2008), in which she described her students’ sense of frustration and confusion. Further, our findings reveal some of the dispositional shifts described by Zygmunt-Fillwalk and Clark (2007) and Zygmunt-Fillwalk and Leitze (2006) in their more extensive immersion interventions. The pre-service teachers in our study indicated that they had a deeper understanding of what it is like to be an ELL in a classroom setting. Importantly, our research indicates that such an experience may positively impact the self-efficacy of the pre-service teachers who are not bilingual or ELL specialists. The participants were able to identify multiple strategies to help support ELLs and felt more confident that they could address the needs of EL students in their classrooms. These increases of efficacy may be necessary to ensure that teachers implement such strategies (Jimenez-Silva et al., 2012) and remain persistent with their efforts and resilient in the face of the many challenges that teaching ELLs presents (Tschannen-Moran & Hoy, 2001).

The first goal of this study was to see if a language immersion simulation could impact pre-service teachers’ beliefs about ELLs; the intervention appeared to have little effect on existing beliefs. The exception was a significant change in relation to the statement, “it is reasonable for teachers to be held responsible for the achievement of their ELL students.” This shift may be connected to increases in efficacy among participants. It seems logical to us that teachers would feel less reticent to be held accountable when they feel more confident in their abilities to teach ELLs competently; and thus more prepared to bear that responsibility.

The apparent lack of change in participants’ responses to value statements was not surprising to us. It is likely that any significant changes in participants’ values could require more extensive training and shifts in participants’ worldviews that require more time and resources than the time allotted to our hour-long intervention. Given that our qualitative data suggest that there may be undercurrents of change that our quantitative instruments were not able to capture, there may be promise in pursuing this line of investigation further. We suggest that it might be possible to capture such changes with staged interventions over a longer time horizon that incorporates the shock-and-show technique.

Significant changes both in our participants’ perceived understanding of ELLs and in their efficacy around addressing ELLs’ instructional needs effectively may be reflective of the multifaceted nature of the activity (i.e. the pairing of a language shock activity with a model lesson). Based on our findings, we have created a model that visualizes how the immersion experience might impact pre-service teachers, which includes three factors: participants’ emotional reaction, unfamiliar content input, and firsthand experience with a model lesson. Although there are many factors that go into any classroom experience, the features discussed in the model below influence and interact with each other in a synergistic manner to influence pre-service teachers’ perspectives about what it is like to be an ELL as well as their confidence to teach these students effectively. That is to say, the shock-and-show experience allowed participants to engage in multiple facets of experience at once, ones that cannot easily be separated from each other (Figure 1).
8.1. Emotional reaction

The first major component of the experience is the participants’ emotional reaction. While many participants acknowledged being frustrated and exhausted, others discussed how they gained an appreciation of the “social and emotional issues” of ELLs. The dissonance between their initial perceptions of what it is like to be an ELL and their experience as a language learner may have enabled participants to glimpse “what it is like to be in their [ELLs’] shoes.” McAllister and Irvine (2002) illustrated the extent to which teachers see empathy as an important capacity that they use to improve many different facets of practices such as positive, supportive, and student-centered classrooms that can in turn help students to be more empathetic. They called for more efforts in teacher education to help foster teacher empathy in preparation for teaching in culturally diverse classrooms. It is interesting to note, that they used a cross-cultural simulation as a means by which to prepare the teachers who participated in their study. The incorporation of an emotion-triggering experience may find additional support in the field of neurobiology.

Immordino-Yang and Damasio (2007) discussed research into decision-making of patients who have lost the use of the emotional centers of the brain, which revealed that while these people were able to make logical and ethical decisions in a laboratory setting, they were unable to do so in real-world settings. This transfer problem, they argued, suggested that emotion plays a “critical role ... in bringing previously acquired knowledge to inform real-world decision-making in social contexts, [these findings] suggest the intriguing possibility that emotional processes are required for the skills and knowledge acquired in school to transfer to novel situations and to real life” (p. 5). The implications of Immordino-Yang’s and Damasio’s research may, therefore, account for why ELL teacher education may, in some cases, be an ineffective intervention (Téllez & Waxman, 2006); the lack of emotional resonance of a skills-based approach may make it difficult for pre-service teachers to transfer their learning into their classrooms. The current study may reveal one way in which teacher educators might embed the emotional component within their curriculum to facilitate this process. It is, however, beyond the scope of this research to speculate upon how such an intervention may impact teachers’ classroom practices, or to suggest that the emotional impact of this simulation has any lasting effect on teachers’ knowledge and confidence regarding the teaching of ELLs.
8.2. Unfamiliar content
Our decision to select a content area and topic that was likely to be unknown to most participants (the Swedish government) was purposeful in that participants could not just use their own background knowledge to make sense of the readings and related questions. Rather, the lesson required participants to stay focused on the lesson led by the second author, and to participate both in the whole-class activity and in work with their partners. Some participants mentioned that the use of unfamiliar content helped them realize that if students do not understand the content, it is not because they are not intelligent, but rather that the language barrier prevents students from achieving full clarity in relation to the content.

One student mentioned that she/he was made to “feel like you’re not smart.” Not knowing the language or the content prevented him/her from engaging in the lesson. The use of unfamiliar content and an unfamiliar language highlighted the importance of thoughtful and appropriate strategies, because “language is the medium through which students gain access to the curriculum and through which they display—and are assessed for—what they learned” (Lucas et al., 2008, p. 362). As teacher educators, we often remind students about the content/language connection, but experiencing it themselves may prove to be more impactful than simply telling them that this is so. The paucity of research in this area speaks to the need to more fully explore this concept.

8.3. Experiencing a model lesson
Another goal of this immersion experience was to model strategies that support ELLs in the classroom, specifically SIOP strategies (Echevarria et al., 2007). Participants reported an increase in change \((p < .001)\) in their confidence in describing and implementing strategies to help ELL on all seven questions that incorporated the word “strategy.” Importantly, our research indicates that the model lesson following from a language-shock activity may positively impact the self-efficacy of the pre-service teachers as it did for participants in this study. The participants were able to identify multiple strategies and felt more confident in their abilities to teach ELLs more effectively. Though it is beyond the scope of this study to suggest that the changes we documented will have long-lasting effects, the work of Jimenez-Silva et al. (2012) suggested that such increases in efficacy could make it more likely that these teachers will implement such strategies in their future classrooms. It is also possible that an increased sense of efficacy could lead them to be more persistent in their efforts in the face of the many challenges that teaching ELLs presents (Tschannen-Moran & Hoy, 2001).

Many participants commented on the difference between the first and second lessons. As one person stated, “it’s extremely frustrating (1st version). I wanted to understand so badly in the 1st version, but I couldn’t because I didn’t have the tools to! The second lesson was much easier to understand. The info was more accessible.” Comments such as “it is possible” and “… that the use of hand signals/gestures, body language, use of pictures and overall attitude of the teacher REALLY helps,” demonstrate the effect that the experience had on the participants.

8.4. Real and perceived value
It is possible experiencing a lesson that created cognitive dissonance in participants through an emotional experience, challenged them with unfamiliar content, and demonstrated the effective use of pedagogical strategies was impactful for these pre-service teachers. Specifically, the shock-and-show simulation led to significant positive changes in participants’ self-reported levels of empathy for the challenges that ELLs face and their confidence in how to help ELLs be successful in the classroom.

Participants’ responses also highlighted their perceptions that the activity had value for them. One student commented that, “this was a very effective opportunity. All teachers should experience a demonstration like this!” Others remarked, “The lesson was wonderful. Thank you for this experience. I really enjoyed it,” and “very beneficial experience, a real eye-opener, makes me eager to teach ELLs effectively.” Comments such as these point out that while there was some initial discomfort with not understanding Swedish, the participants saw the value in the activity and were able to draw out important lessons from it.
9. Implications and limitations

It is clear that even a short immersion activity can impact the beliefs pre-service teachers have about ELLs’ experiences and the strategies that help them to succeed, when it is followed immediately by a model lesson; however, the scope of this study centers around the short-term impact of the intervention. It is therefore unclear as to whether pre-service teachers’ new understandings and sense of efficacy will have the staying power to impact their practice following their departure from their teacher education programs. As such, we believe that it is too early to suggest that interventions of this kind should supplant other existing strategies used in pre-service teacher education, but rather, it could enhance existing efforts to train pre-service teachers to work with ELLs. Given the short-term boost in pre-service teachers’ perceived understanding of ELLs and increased sense of efficacy that were a result of this activity, we suggest that it may be an effective, formative experience which could open pre-service teachers to learning about ELLs and ELL instruction, early in their programs of instruction, before practicum experiences have the chance to reify any existing stereotypes they may have about ELLs (Burant & Kirby, 2002; Pollack, 2012).

We also recognize that many methods instructors do not possess a working knowledge of a second language with which to create the experiences described in this paper, much less a language such as Swedish that their students are likely to be completely unfamiliar with; however, collaboration between methods instructors and language specialists should make such activities accessible at most institutions. It is interesting to note that in the time we have been engaged in this research, the first author, who spoke no Swedish prior to his participation in this study, has learned enough of the language to replicate the simulation in his own classes in a believable fashion.

Given the limitations of this study, further research is necessary to follow up with the findings reported herein. The present study does, however, serve to draw attention to a pedagogical device that may have value to the community of teacher educators working to improve teachers’ practices with ELLs. Our results suggest that including a shock-and-show language immersion experience into methods or second-language acquisition courses in teacher preparation programs could help pre-service teachers develop more positive orientations toward ELLs, set goals that support ELLs in the classroom, and give teachers the resources (skills, knowledge, and confidence) to help them do so more effectively. At minimum, we believe that immersion activities such as this may help pre-service teachers become more open to learning about ELLs, their needs, and the strategies that most effectively facilitate ELL learning. More ambitiously, this activity may help contribute to the efforts of scholars and teacher educators in the field in their efforts to reshape the misconceptions about language acquisition under which many teachers work (Reeves, 2006) and to contribute to empowering teachers to attend effectively to the needs of ELLs through the process of emotional connection with the needs, challenges, and supports of and for these students.

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Note

1. Please note, that documents, sentence frames, readings, questions, and support materials were all conducted in Swedish. Students were asked to respond in Swedish as well.

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