Purpose: The purpose of this study was to evaluate students’ academic and civic learning, with particular interest in cultural competence, gained through participation in the Speech, Language, and Hearing Sciences in Zambia study-abroad program.

Method: Twelve female students participated in the program. Quantitative data collected included pre- and postprogram administration of the Public Affairs Scale (Levesque-Bristol & Cornelius-White, 2012) to measure changes in participants’ civic learning. Qualitative data included journals, end-of-program reflection papers, videos, and researcher field notes. Feedback was also obtained from community-partner organizations via a questionnaire and rating scale.

Results: Comparison of the pre- and postprogram Public Affairs Scale data showed a significant increase in cultural competence and a marginal increase in community engagement at the conclusion of the program. Qualitative data showed that participants’ cultural awareness was increased, they benefited from hands-on learning, and they experienced a variety of emotions and emotional and personal growth.

Conclusions: Results show that a short-term study-abroad program with a service-learning component can be a mechanism for students to enhance academic and civic learning, specifically cultural competence and clinical skills. Sustainability of programs is a challenge that needs to be addressed.

Study-abroad programs related specifically to the professions of audiology and speech-language pathology are not common, although they have been gradually emerging over the past few years. Literature regarding such programs, particularly program outcomes, is also scarce. Speech, Language, and Hearing Sciences (SLHS) in Zambia is a faculty-led study-abroad program that was developed by clinical faculty in audiology at Purdue University over the course of a year and a half, starting in the fall of 2011, with the inaugural program occurring in the summer of 2013. The program was started with the help of funds obtained from the university in the form of a Study Abroad and International Learning grant, which served to help develop the program and continues to subsidize program costs. The program is the first study-abroad program offered by the Department of SLHS at Purdue University. The initial goals of the program were for students to experience and learn about Zambian culture, learn about (hearing) health care services in Zambia, participate in clinical service delivery, and think critically about global challenges in (hearing) health care.

The American Speech-Language-Hearing Association (ASHA) recognizes cultural competence as an important skill and requires clinical programs in speech-language pathology and audiology to include instruction in this area. However, ASHA offers no guidelines or consensus about how programs should incorporate instruction regarding cultural competence in their curricula. Stockman, Boult, and Robinson (2008) surveyed accredited speech and hearing programs in the United States regarding their instructional strategies related to multiculturalism and multilingualism. They reported that the most common instructional model was to infuse multiculturalism throughout the curriculum, but also concluded that instruction may not be optimal and that programs face many challenges to meet the ASHA requirement. There have been a few reports of courses dedicated to teaching cultural competence. Undergraduate students’ attitudes improved, with significant gains in the recognition of white privilege, after completion of a course on cultural diversity in communication (Preis, 2008). A foundational course on multicultural issues has also been suggested as a means of facilitating cultural competence (Horton-Ikard, Munoz, Thomas-Tate, & Keller-Bell, 2009). Goldberg (2007) reported on an undergraduate course in
communication sciences and disorders that used service-learning (SL) as a tool to facilitate cultural competence; the authors have no knowledge of any other published reports linking SL and cultural competence in SLHS.

Reports of international programs and collaborations in speech-language pathology and audiology are also beginning to emerge, with ASHA taking the lead in starting collaborations with the Pan American Health Organization and being one of the founding organizations of the newly developed International Communication Project (Battle, Martinez, Pietranton, & Madrid, 2014). Other reports have described specific international programs (e.g., Williams et al., 2013), with some relating specifically to speech-language pathology (e.g., Crowley & Baigorri, 2011, 2012). McBride and Belus (2014) reported on an international audiology program with a humanitarian focus, but no published studies have provided an examination of an SL program focused on the development of cultural competence. In this clinical focus article, we draw upon the results of qualitative and quantitative data analyses in examining the outcomes related to participation in the SLHS in Zambia program. We begin by situating the program within the larger body of literature related to SL.

**SL in College Courses**

SL is a form of experiential learning (Dewey, 1938) in which students engage in hands-on community service while also pursuing academic learning goals (Bringle & Hatcher, 1996). To be more specific, SL can be defined as “a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development” (Jacoby, 1996, p. 5). SL is often integrated into the formal structure of an academic course and requires the development of a mutually beneficial relationship between those who are being served and the students engaged in the service. Bringle and Hatcher (1996) discussed three key elements of effective SL programs: relevant and meaningful community service, enhanced academic learning, and purposive civic learning. Thus, in order to be effective, SL must address an actual need in the community while also helping students progress toward stated academic learning goals and enhancing their awareness of public needs and social concerns (Domangue & Carson, 2008). Reflection is also a critical component of SL, and evidence indicates that reflecting on their experiences can help students challenge social inequalities and deconstruct preconceived notions relative to the group being served (Baldwin, Buchanan, & Rudisill, 2007).

Whereas other experiential learning activities, such as clinical and field-based learning experiences, also get students active within the community, what separates SL is the focus on service and civic learning (Richards, Eberline, Padaruth, & Templin, 2015). Levesque-Bristol and Cornelius-White (2012) noted that civic learning occurs across three interrelated dimensions: Community Engagement, Cultural Competence, and Ethical Leadership. Community engagement relates to the process of working collaboratively with individuals to address issues that affect quality of life. Cultural competence is the ability to have meaningful interactions with individuals of diverse backgrounds, perspectives, and abilities. Ethical leadership refers to the ability to lead through consensus building, collaboration, and communication. Prior research has demonstrated that all three dimensions of civic learning can be enhanced through SL programming (Levesque & Strong, 2010; Richards et al., 2015). However, Levesque-Bristol, Knapp, and Fisher (2010) found that when students are not asked to reflect, and SL is not meaningfully integrated into the course experiences, students are less likely to experience civic learning gains.

Evidence also indicates that SL can result in meaningful academic learning outcomes such as higher course grades, enhanced understanding of course concepts, and development of problem-solving and critical thinking skills (Billig, 2000; Youniss & Yates, 1997). In addition, personal, social, and career development have been cited as outcomes of SL (Eyler & Giles, 1999). College faculty have expressed satisfaction with SL and recognized the positive influence it has on their students’ development and progression toward course objectives (Domangue & Carson, 2008).

Despite the widespread use of SL pedagogies in post-secondary education, literature related to SL in the professions of audiology and speech-language pathology is still limited. The handful of studies that have been conducted have reported encouraging results relative to students’ perspectives on and learning through SL (e.g., Cokely & Thibodeau, 2011; Kaf, 2012; Kaf & Strong, 2011; Pakulska, 2011). However, most of these studies have focused on integrating SL into graduate-level coursework. Fewer studies related to the incorporation of SL into undergraduate coursework in speech-language pathology and audiology are available. Peters (2011) found that undergraduate students developed more positive attitudes toward the people served following a SL program. In another study, Kaf, Barboa, Fisher, and Snively (2011) included both speech-language pathology and audiology students. They compared students in an SL experience with students in a control group and found that, at the end of the semester, the students engaged in SL expressed more positive attitudes toward the people served than did their peers. Although limited, the results of the available SL studies in the speech-language pathology and audiology literature are encouraging and indicate positive outcomes. Given that only limited evidence is available related to the outcomes of SL programming in speech-language pathology and audiology, the purpose of this study was to evaluate students’ academic and civic learning, with particular interest in the cultural competence gained through participation in the SLHS in Zambia study-abroad program. To be specific, we were interested in evaluating the following research questions:

1. How does participating in the SLHS in Zambia program affect participants’ civic learning?
2. Do participants in the SLHS in Zambia program describe the experience in relation to academic and civic learning?

Method

SLHS in Zambia Study-Abroad SL Program

The SLHS in Zambia program was developed through a partnership between the SLHS department at Purdue University and the only audiologist currently working in Zambia. The goals of the program were for participants to increase their cultural competence, improve their clinical skills by participating in hearing screenings and assessments, and think critically about global challenges in (hearing) health care. The program had four components:

1. Spring semester: two informative class sessions
2. Summer session: one week of intensive daily classes and lab activities focused on gaining knowledge about Zambia and practicing skills related to hearing screenings and assessments
3. Two weeks of program activities in Zambia working at multiple sites with different community-partner organizations
4. Two debriefing meetings upon return from Zambia

During the first component, participants were partnered with students in special education at the University of Zambia and began corresponding via e-mail with those partners, whom they later met in Zambia.

The second component included daily instruction and discussion about Zambia in class. Class activities and assignments included a book discussion and assignments related to the history, geography, culture, languages, government, economy, health care system, education system, and wildlife of Zambia. The participants also learned about health care issues common in Zambia, such as hydrocephalus, clubfoot, malaria, and HIV/AIDS. Lab activities focused on having the participants who had no prior clinical experiences learn to perform otoscopy, pure-tone hearing screening and threshold testing, otoacoustic emission screening, and listening and electroacoustic checks of hearing aids.

The third component took place in Zambia, where the participants had daily scheduled activities at various community-partner organizations including two schools for the Deaf, a primary school, an early intervention clinic, two nonprofit organizations that serve children with disabilities, the University of Zambia, and some cultural excursions. An important aspect of these 2 weeks was the nightly debriefing sessions, in which participants reflected on the day’s activities and shared their observations and feelings. The final component of the program, upon return from Zambia, was two debriefing sessions in which participants led the discussions and faculty facilitated their reflections encompassing the entire program.

Participants

Twelve female students participated in the program. As with most programs in speech-language pathology and audiology across the United States, there are very few male students in our program, and no male students applied for the program in 2013. The participants comprised eight undergraduate students majoring in SLHS and four graduate students. There were one freshman, one sophomore, five juniors, one senior, one first year master’s student in speech-language pathology, two students in the second year of the doctor of audiology program, and one PhD student in engineering education. The average age of the participants was 21.75 years (SD = 1.74). Ten of the participants were White, one was African American, and one was Filipino American.

Research Procedures and Data Collection

Recognizing the unique nature of this SL study-abroad experience, the two course instructors initiated a study to examine program outcomes. The instructors partnered with the university’s center for teaching and learning in the design of the course and coordinated the collection of participant data throughout the semester in which the course was taught. Human subjects approval was obtained from the university institutional review board to use the data gathered as part of the course requirements. At the conclusion of the semester and after all participant records had been deidentified, the course instructors partnered with a researcher from the center for teaching and learning to analyze the data and interpret results. This researcher had experience with SL pedagogy but was not involved in the SLHS in Zambia course. This provided an outsider’s perspective to balance against the instructors’ insider perspectives.

Both quantitative and qualitative data were collected from the participants in the program. Quantitative data were derived from pre- and postprogram administration of the Public Affairs Scale (PAS; Levesque-Bristol & Cornelius-White, 2012) to measure changes in participants’ civic learning through program participation. Qualitative data comprised daily journaling, end-of-program reflection papers, videos, and researcher field notes from daily debriefing meetings.

PAS

Participants completed the 40-item PAS prior to and after completion of the program. The PAS measures civic learning in three areas: Community Engagement (15 items), Cultural Competence (10 items), and Ethical Leadership (15 items). All 12 participants completed the preprogram survey, but only 11 returned completed postprogram survey forms. As a result, only data from the 11 complete cases were used in the analyses. Participants responded to items on a 5-point Likert-type scale ranging from strongly disagree (1) to strongly agree (5). Example questions include “Volunteering will help me succeed in my own profession” (Community Engagement), “I am able to communicate
effectively with people from different cultures” (Cultural Competence), and “When working in groups, I try to assure everyone’s voice is heard before a decision is reached” (Ethical Leadership). Internal consistency for the PAS has been previously established (Levesque-Bristol & Cornelius-White, 2012), and ranged in the current study from adequate to excellent (Cronbach’s α ranged from .77 to .90).

Journals
All participants were required to write daily entries in their International Service Learning Reflection Journals (Sass, 2013). These journals posed daily reflection prompts related to international SL and also provided space for open reflection. Prior to leaving for Zambia, participants completed preprogram reflections in their journals. Daily entries began on the first day participants arrived in Zambia and concluded on the last day of the trip (15 total entries). After returning from Zambia, participants completed a re-entry reflection to document their transition back into U.S. culture. These final entries were completed within 2 days after returning. Journals were collected at the conclusion of the course and transcribed for analysis.

Reflection Papers
Following the completion of the program, participants were asked to write reflection papers reacting to their experiences in Zambia. The prompts for the final paper were from the International SL Reflection Journals (Sass, 2013), and the purpose of the paper was for participants to reflect on and connect the SL projects with the course objectives and content, and to discuss how these projects helped them understand the course material better. Electronic versions of these papers were collected from participants for inclusion in the data set.

Videos
As a final activity in Zambia, a coleader of the program and the 12 participants put together a video to remember the experience. Participants were asked to identify what activity they were most thankful they had the opportunity to experience during the time spent in Zambia. Videos were short (~ 1 min) and attempted to capture critical elements of the Zambia trip from the perspective of the participants. At the end of the semester, videos were transcribed to text, and the transcripts were included in the data set for analysis.

Researcher Field Notes
Throughout the SL experience in Zambia, participants met with the course instructors at the end of each day to debrief. These open-ended discussions provided participants an opportunity to express their emotions related to the day’s experiences and connect with one another. Topics for discussions were not prepared, and the discussions were primarily participant led. The two course instructors were present during all debriefing sessions and took detailed field notes documenting participants’ perspectives on and reactions to their service activities in Zambia. These field notes were transcribed and included in the data set.

Data Analysis and Trustworthiness
The analysis of quantitative data began with standard procedures for data screening recommended for inferential statistics (Tabachnick & Fidell, 2007). Through this process, it was determined that the data met the basic assumptions associated with inferential statistics (scores on the dependent variable approximate an interval level of measurement, scores on the dependent variable are normally distributed, observations are independent, variance is homogeneous). Paired-samples t tests were used to examine changes in each of the PAS subscales from pre- to postprogram. Given the small sample size, the Wilcoxon signed-rank test, which is the nonparametric version of a paired-samples t test, was also examined. The results of the two tests were then compared. Following the recommendation of Smith (2003), if both tests resulted in the same interpretation, the parametric test was chosen due to greater ease in interpretation. However, if the results of the parametric test led to a different interpretation than those of the nonparametric test, the nonparametric test was selected because it is less sensitive to sample size. Cohen’s d was used as a measure of effect size (Warner, 2012). A Cohen’s d value below 0.20 is associated with a small effect, between 0.20 and 0.50 with a medium effect, and above 0.80 with a large effect.

Qualitative data collected from journals, reflection papers, videos, and researcher field notes were analyzed by the three-person research team in a multiphase process. The first phase involved open and axial coding (Glaser & Strauss, 1967). The researchers read through multiple transcripts from different data sources individually, wrote research memos, and identified emerging patterns in the data. These memos were then discussed during weekly meetings. Following these initial research memos, the researchers independently coded additional transcripts and began to formulate coding categories. These categories were developed into a codebook during subsequent research meetings and used to code data in the second phase of analysis.

During the second phase of analysis, the team used a combination of inductive analysis and the constant comparative method (Patton, 2002). Through inductive analysis, the researchers independently coded the entire data set and met regularly to discuss the coding process. During these meetings, the researchers discussed each individually coded participant quotation along with the emerging theme into which they had coded the quotations. When classification disagreements occurred, the research team discussed until at least two of the three members agreed on the coding decision. Constant comparison (Glaser & Strauss, 1967; Patton, 2002) was used as the researchers made modifications to the codebook on the basis of newly coded data. After all of the data had been coded, the research team reviewed the coding structure, made modifications, and finalized the themes and associated subthemes.
When drawing from qualitative data sources, researchers seek to enhance the trustworthiness of the research design through a series of methodological decisions (Patton, 2002). In the current study, trustworthiness was enhanced through researcher triangulation, data triangulation, and an audit trail (Lincoln & Guba, 1985). Research triangulation was achieved through the use of multiple coders in the qualitative data-analysis process. Data triangulation was facilitated through the collection of multiple, diverse data sources: the PAS, journals, reflection papers, videos, and researcher field notes. As a final step, an audit trail was constructed through the cataloging of all steps involved in the data-analysis process from initial research memos through the final thematic structure. This audit trail helped maintain transparency by documenting the progress the research team made toward completion of the analyses.

Results

In general, the results of the investigation support the impact of the Zambia SL experience on participants’ cultural and emotional awareness, and highlight the importance of hands-on learning. Statistical analysis of the PAS data will be presented, followed by themes derived from the qualitative data analysis.

Quantitative Changes in Participants’ Civic Learning

Table 1 displays the descriptive statistics for the three subscales of the PAS prior to and after the study-abroad experience. Participants’ perceptions of all three study variables increased from pre- to postprogram surveys, as depicted in Figure 1. Paired-samples t tests and Wilcoxon signed-rank tests were used to determine whether the changes noted in Table 1 were statistically significant. Given that the interpretations were the same for both sets of tests, only the paired-samples t test results are discussed. For Community Engagement, the t test was marginally significant, \( t(10) = 1.90, p = .087 \). Although the test was not significant at the conventional \( \alpha = .05 \) level, the difference was associated with a large effect size, \( d = 0.85 \). Relative to Cultural Competence, the paired-samples t test was statistically significant, \( t(10) = 2.98, p = .014 \), and associated with a very large effect size, \( d = 1.33 \). The paired-samples t test to evaluate the change in ethical leadership was not significant, \( t(10) = 0.82, p = .432 \), but was associated with a small effect size, \( d = 0.37 \).

Qualitative Data

The thematic structure included three first-order themes that were supported by various second-order themes (see Figure 2). The first-order themes are cultural awareness, the benefits of hands-on learning, and emotional experiences. Quotations from the data set will be presented in support of each theme, and the participant associated with each quotation identified using a pseudonym. The data sources from which quotations are drawn are identified in parentheses.

Theme One: Cultural Awareness

One of the goals of the SLHS in Zambia program was to help the participants develop a greater understanding of and appreciation for cultures other than their own, with a particular focus on the country of Zambia. Qualitative data from multiple sources confirmed that participants developed a greater sense of cultural awareness through participation in the program. Comments such as “the most important thing I learned is my new expanded view of Africa” (April, journal) were common. Samantha explained the way in which she felt immersed in cultural learning while participating in the program: “In everything we did throughout this trip I was constantly learning about the culture in Zambia, whether it was simply by interacting with the people and learning about their lives, or by visiting the national museum” (reflection). Researcher field notes confirmed that the participants focused on cultural awareness throughout the experience: “They again discussed cultural differences [such as] how the pace of life is different (slower) here than in the US” (5/28/2013). Although the participants discussed cultural awareness generally, their comments were also categorized into three subthemes: health

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Preprogram M</th>
<th>SD</th>
<th>Postprogram M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Engagement*</td>
<td>4.60</td>
<td>0.37</td>
<td>4.70</td>
<td>0.28</td>
</tr>
<tr>
<td>Cultural Competence**</td>
<td>4.08</td>
<td>0.53</td>
<td>4.55</td>
<td>0.25</td>
</tr>
<tr>
<td>Ethical Leadership</td>
<td>4.76</td>
<td>0.31</td>
<td>4.80</td>
<td>0.23</td>
</tr>
</tbody>
</table>

*Note. Probability notes indicate significance of the differences between pre- and postprogram results.
* \( p < .10 \). ** \( p < .05 \).
care in Zambia, the perception of disability, and educational opportunities for children with disabilities.

Health care in Zambia. Central to the service activities conducted while in Zambia, several participants reflected on the health care system operating in the country and the ways in which it is different from the U.S. model. Comments such as “I learned how different healthcare is in Zambia compared to home” (Amanda, journal) are representative of the participants’ perspectives. April reflected that “some social concerns about Zambia would deal with accessibility of medical care. … This is a huge problem in the country, but the sad truth is I don’t know how one would solve such a widespread problem” (journal). Other participants shared the concern over access to affordable, quality health care. Ellie noted instances in which this access could have prevented some of the health problems with which she was confronted: “If repeated ear infections had been treated, or alternative and non-ototoxic medications had been used, many of these children would have grown up with normal hearing” (reflection).

In addition to problems with accessing health care services, several participants noted that many Zambians either lacked appropriate education related to health care or held misconceptions about effective treatments. Julia described an interaction with a hospital employee who told her that belief in “witch doctors is still common today and can cause difficulties with treatment” (journal). In a similar vein, Lindsey “learned how cultural norms can pose challenges to developing [quality] programs” (journal). In response to these traditional, culturally informed views of health care, Samantha asserted, “The people just need education. Education about illness, prevention, assessment, and training in the medical field” (journal).

The perception of disability. Many of the individuals with whom participants interacted throughout the trip had some form of disability. Some had hearing loss, but many also experienced other physical impairments or cognitive delays. The cultural perception of disability was something that many of the participants noted in their journals and reflective papers. In general, participants found that Zambians had negative views of individuals with disabilities. Samantha drew a connection between cultural beliefs and the ways in which individuals with disabilities are treated: “Many people in Zambia have a stigma toward children with disabilities. They believe they are cursed. Therefore, people who have children with disabilities often do not take them out in public” (journal). In her reflection, Meghan explained:

Individuals with hearing loss and other disabilities are often treated unkindly and unfairly. Zambia is still a developing country and they have not yet fully integrated individuals with disabilities into their society. It has taken time in the United States to work toward equality and will also take time in Zambia.

Researcher field notes confirmed that participants were aware of the stigma toward children with disabilities: “[Students] discussed how wealthy families refused hearing aids for their children. Attitudes are still developing and the hope is that they will change over the years, as they have in the western world” (6/1/2013).

Whereas the participants expressed concern related to the ways in which individuals with disabilities were viewed in Zambian culture, they also recognized that the community partners with whom they worked were making progress toward change. Julia observed that “[the community partner] is trying to have [individuals with disabilities] be more included and the people in the program are starting that change from within” (journal). In some ways, the organization was viewed as a safe haven for individuals with disabilities. In reference to the community partner, April said, “It’s really nice to know that the kids with disabilities have a place to go and a support group. That’s not seen much in Africa and I was really inspired by it” (video). During a debriefing session, researcher field notes captured participant perspectives on how the efforts of the community partner could lead to cultural shifts: “Because [the organization] involves parents in the care of their own...
children with disabilities ... gradually over time they may help change the stigma against children with disabilities in Zambia” (5/22/2013).

Educational opportunities for children with disabilities. In addition to how individuals with disabilities were viewed in Zambian culture, participants discussed the lack of educational opportunities available to children with disabilities. Participants noted that, in the United States, children with disabilities are provided accommodations and adaptations for learning. Often they are integrated into general education classes, and learning is adapted to meet their needs. In Zambia, however, participants observed that children with disabilities were in segregated classes or schools and that the quality of education was, at times, lacking. Spending time at schools for children who are Deaf, Sandy was surprised by “how difficult the environment at the schools is for children to learn, especially since they have to deal with a hearing loss” (journal). Amanda explained, “[It was] hard for me to watch the kids try to communicate with not only us, but each other, and that made me sad. I think it is great that Deaf schools exist, but I wish the level of education was the same [as in the United States]” (journal).

Ellie noted the way in which the limited educational opportunities for children who are Deaf had implications for the lives of individuals with disabilities. She explained that “[there are] only four Deaf schools in the country [and] there is not further Deaf education” (journal). Sandy was “surprised to learn that many Deaf children can only hope to be teachers to other Deaf classes” (journal). The participants’ perspectives reflect how education for children with disabilities is a result of the view of disability within Zambian culture. This frustrated many participants, including Julia, who expressed an appreciation for Zambian culture except the customs that disadvantaged individuals with disabilities: “I think traditions should be kept, expect the ones that go against basic human rights. For example, hiding someone away or providing a less than ideal education because they are disabled shouldn’t be common” (journal).

Theme Two: Benefits of Hands-On Learning

Another focus of the study-abroad program was the provision of clinical services at various community-partner sites while in Zambia, primarily hearing screenings and assessments. Of the 12 participants, nine had their first opportunity for hands-on clinical service delivery while in Zambia. Overall, all participants commented in a variety of ways on the benefits of hands-on learning. Comments such as “doing hands-on audiology services helped me take information I learned in the classroom out into the field” (Felicia, journal) were common. Several undergraduate participants commented on the fact that they would not have these types of hands-on clinical opportunities in the United States: “Without going on this trip, I never would have gotten to work directly with patients or see the things I did as an undergraduate student” (Chantal, reflection). Dawn shared a similar sentiment: “The experience that I had during the past two weeks is one that is typically unheard of for an undergrad. We received basically two weeks of clinical practice” (reflection).

Several participants reflected on how such hands-on learning was more beneficial than just classroom learning, making comments such as “I had no idea going into this how much more meaningful this type of education is than just sitting in a classroom. I truly believe that in the past two weeks I have learned and gained more than any semester in college.” (Alicia, reflection) and “In these past two weeks I’ve seen so much and done so much more than I could have ever dreamed. I’ve probably seen more and done different things in the past two weeks than in the past two years [of college] combined” (Amanda, video). In addition to general reflections, participant comments regarding hands-on learning were categorized into three subthemes: connections to coursework, building confidence, and learning to interact with clients.

Connections to coursework. Participants noted that they were able to make connections between the SLHS in Zambia program and the classroom-based experience that preceded it, as well as other courses they had taken. The majority of the participants had not had any prior clinical experiences and had not been out of the United States prior to this study-abroad trip. Therefore, the trip preparation was particularly important. Meghan summed it up in her reflection by saying:

The course work and training preceding our trip to Zambia was vital to the success of our program.... At times we faced challenges that we were not able to directly simulate in class but we were able to combine our knowledge of Zambian culture, clinical training and experience working with children to accurately carry out services for a great deal of children throughout our two week program.

To be more specific, participants commented positively on the relevance of both the didactic content and the lab activities of the course prior to departing for Zambia. Lindsey said in her reflection:

There were many children who were there to have shunts placed to treat their hydrocephalus and to have orthopedic surgery to correct their clubfeet. If I had not read the papers pertaining to these particular disorders I would not have known what these conditions were and that they are a common problem in Zambia.

Some participants also related their hands-on experiences to other classes they had taken. Samantha mentioned how her experiences related to an audiology course, saying, “I was able to use what I had learned in my Introduction to Audiology class as well. I was able to see the disorders and hearing losses we learned about in real life” (reflection). Chantal made a connection between learning American Sign Language in classes and being able to use it with children in Zambia, saying, “my favorite part has definitely been going to the Deaf schools. I was
able to use sign language for the first time outside of a classroom” (video).

Building confidence. After participating in hearing screening and assessment activities throughout the program, many participants commented on how they gained confidence in their clinical skills. “I know with this awesome hands-on experience we’re getting, there is no doubt that I am getting better and better each day,” said April, adding, “It’s been a little over a week of practice and I can say I really think I’ve gotten the hang of things, and that I am really fulfilling what this course and trip is set up to teach us” (journal). Dawn spoke more specifically, saying, “By the end of the two weeks I was quickly able to recognize if the eardrum was impacted with cerumen, perforated, perfectly clear, or had something else wrong with it” (reflection). Samantha spoke not only about her increased confidence but also about the variety of experiences: “Not only did we receive clinical experience we never would have been able to experience to such a degree inside a classroom, … through practicing these clinical tasks each day we were able to gain confidence in our work as clinicians” (reflection). The sentiment of increased confidence in clinical skills was also discussed during nightly debriefing sessions, as summarized in the following field note: “[student] confidence really increased. In [previous classes] we saw PowerPoint slides, but seeing it in person made it all real” (6/4/2013).

Not only did participants indicate that their confidence in their clinical skills increased, but several related this to their future career and spoke about increased confidence in their career choice. Dawn summed up this sentiment, saying, “The amount of knowledge and practice that I was able to gain for audiology is something that I will be forever thankful for. … It was also reassuring that I know I have chosen the right career path for myself” (reflection). Other participants had similar experiences, saying, “This hands-on conditioning experience was great because … it’s what real life audiologists deal with on a day to day basis. This type of undergrad experience is unreal, unheard of, yet so valuable!” (April, journal).

Learning to interact with clients. The final subtheme of hands-on learning related to participants having the opportunity and learning to interact with a variety of individuals. Several participants reflected on their interactions with children at the schools for children who are Deaf: “I learned so much about interacting with Deaf children and picked up some Zambian sign language as well,” said April (reflection). This was reiterated in the debriefing session after the day’s activities: “[Participants] enjoyed using their sign language skills, and really liked the interactions they were able to have with the Deaf kids at the school; they liked thinking on their feet to use signs” (field notes, 5/21/2013).

At a school where the participants screened typically developing first graders who did not speak or understand English, many took away lessons about interacting with and testing children. For example, Meghan wrote, “Today was helpful in finding effective strategies to overcome language barriers. When screening, it is important to make sure the child understands the task and I gained much patience today” (journal). Meghan added, “I also felt a sense of success from overcoming language barriers and cultural differences while enjoying the afternoon with such sweet children” (reflection). Dawn spoke more generally in her reflection about screening a variety of children and what she learned:

I learned the approachable way to instruct the child on what to do during the test. Whether the child was Deaf, intellectually disabled, or typically developing, a big smile, simple instructions, and lots of praise seemed the key to success for most of the children we tested.

Some participants also commented on the challenges of communicating, while keeping in mind the lessons learned: “Today I learned how frustrating not having clear communication can be. It was hard to tell if participants understood me because they don’t know English or what I was signing. … However I felt these challenges will make me a better clinician” (Julia, journal).

Theme Three: Emotional Experiences

Throughout the SL study-abroad experience, participants all commented on the emotional engagement they felt working with families and children, experiencing the health care system, and reflecting on their own personal growth. Participants experienced a variety of emotions ranging from elation through angst and depression. General comments showing the range of emotional experiences included “the bright kids I met today really made me feel joyful” (Julia, journal), and “today was an extremely overwhelming day. Decided to just take some time to myself” (Alicia, journal). Besides the general comments regarding emotions, participants revealed emotional experiences that were challenging and positive and led to personal growth.

Emotional challenges. Participants discussed feeling stressed, anxious, exhausted, and nervous (among other emotions) during their time in Zambia. Chantal reflected in her journal on a morning when she conducted hearing screenings at a school:

This morning was exhausting. The students were overly excited by our presence and swarmed us. They were hard to test because, as first graders, they didn’t know much English yet. Also, they seemed nervous. So it was a little bit of a frustrating morning.

Participants were also challenged emotionally by the medical and living conditions they witnessed. Felicia shared, “I was overwhelmed with the amount of babies and children that I saw with hydrocephalus” (journal), and April explained that “it was challenging and heart breaking to see the conditions the children were in and the difficult environment they lived in” (journal). Another emotional challenge the participants faced related to the perceived unfairness of the circumstances they witnessed while working
in Zambia. Participants commented many times about situations that didn’t seem fair. Chantal shared in her reflection the story of a teacher at the school for children who are Deaf that she found to be particularly troubling:

Some things were hard to grasp and made me sad, such as the teacher who lost his hearing after taking ototoxic medicine for malaria as a child. His speech was near perfect, and he would be a great candidate for cochlear implants. Unfortunately, he doesn’t have access to that technology, and he knows that he would need to come to the US if he were to have a chance at getting them. He knows this isn’t financially possible and explained that to us using sign language. It took an emotional toll on me because I feel that everyone should have equal access to hearing healthcare, but this is simply not reality.

Several participants discussed the emotional challenges associated with witnessing a health care system that differed so markedly from the one in the United States.

“The hardest part was seeing the older children with obvious brain damage and they are just now receiving help,” said Dawn (journal). Amanda commented, “Some of the stories seemed unreal because they are so sad. And it’s hard to realize what goes on in the world” (journal). Participants interacted with many children while in Zambia, but the story of one little girl in the children’s ward, her hardships, and difficult family circumstances affected all of them deeply. April shared, “I felt sadness towards the patients, especially [the girl] who really struck my heart” (journal). At the end of the experience, Alicia reflected again on this girl’s particularly difficult situation and how Alicia did not get the closure she had hoped that she would by seeing her one last time. She explained, “[I] had a rough morning. I went to see [the girl] and she had been discharged” (journal).

Positive emotional experiences. Although the emotional challenges associated with the SLHS in Zambia experience affected the participants in a very real way, the participants also shared many positive emotions that they experienced throughout the trip. They discussed being inspired, valued, appreciated, rewarded, and uplifted, among other things. Several participants shared how they were inspired by the nonprofit organizations with whom they had the opportunity to work. Referring to the founder of one organization, Amanda made the following note in her journal: “Hearing what he wants to do and how he wants to do things is inspiring because he is showing that one person can make a difference.” April agreed, sharing, “Being at the staff discussion was really inspirational! It was amazing how motivated, selfless, and also inspiring the founders are, and made me really appreciate and look up to these people for the hard work they are putting in” (journal). Amanda commented about the children with physical disabilities at another community-partner organization, saying, “I was really impressed when they all seemed to buddy up and help each other get around” (journal).

Participants also noted positive emotional reactions in reflecting upon their experiences serving in Zambia. Alicia shared, “I felt really good about myself today! We had a great morning, and I felt like we really helped [our community partner]” (journal). April commented, “Today was a really successful and self-fulfilling day I truly enjoyed” (journal). Meghan and April had positive experiences with children, sharing, “I also felt a sense of success from overcoming language barriers and cultural differences while enjoying the afternoon with such sweet children” (Meghan, reflection) and “I loved how happy the kids got when we signed with them and got to know them. It was really rewarding to see how much they enjoyed us and vice versa” (April, journal). These quotations document the connection between emotional responses and the confidence and experience participants gained while on the trip.

Emotional and personal growth. Another aspect that participants commented on was how their experiences led to personal growth. Participants made general comments, such as Lindsey, who said, “This trip has expanded not only my experience as a clinician, but so much more as a person” (reflection); and Julia summed it up by saying, “The journey I have been on has been more educational, thought-provoking, and life changing than I ever imagined” (reflection). Other participants, such as Chantal, were more specific about their personal growth, saying, “It’s good to go outside your comfort zone because that’s when you will learn the most. I learned that different can be amazing—many things in Zambia were different than the US, but that’s what made it so great” (journal). Felicia recalled her time spent with a teenager with cerebral palsy who used a wheelchair: “It just shows that you shouldn’t judge someone by what they look or sound like, because your opinion isn’t always right” (journal).

Several participants commented that they learned the importance of being patient while working in a clinical environment with children. “Today definitely taught me a big lesson in patience as well as creativity,” said Dawn (journal), and Meghan added, “Today made me realize how much patience can help you make it through difficult situations” (journal). Julia shared how she grew through the experience: “Today I felt overwhelmed at times and had to learn some leadership” (journal), and “the self-assurance I gained and the relationships I made are priceless and will be carried with me the rest of my life” (reflection). Field notes also documented this personal growth. Referring to what she had learned about approaching other cultures, one of the participants said, “Don’t generalize. Talk about problems, but also successes. Be thoughtful and choose words very carefully, set them in context. Be careful not to categorize. Culture is common, but individuals are different” (field notes, 6/1/2013).

Discussion
The primary aim of this study was to evaluate participants’ academic and civic learning, with particular focus on the development of cultural competence, through
participation in the SLHS in Zambia SL study-abroad program. Overall, findings were positive, indicating that participants increased their level of Cultural Competence and Community Engagement as measured via the PAS. Qualitative analyses expanded upon this civic learning and shed light on academic learning as participants discussed cultural awareness, the benefits of hands-on learning, and the various emotions they experienced while working in Zambia.

The results of this study both complement and extend the literature base related to SL, particularly that with a focus on speech-language pathology and audiology. SL that includes meaningful community involvement via a mutually beneficial relationship (Bringle & Hatcher, 1996) and reflection (Baldwin et al., 2007; Levesque-Bristol et al., 2010) has been shown to enhance both academic (Billig, 2000; Youniss & Yates, 1997) and civic learning (Levesque & Strong, 2010). In the following sections we relate the participants’ experiences to the pillars of SL as described by Bringle and Hatcher (1996): meaningful and relevant community engagement, academic learning, and civic learning.

Meaningful Community Involvement

Meaningful community involvement and engagement is one of the three key elements of an SL program (Bringle & Hatcher, 1996). The two course instructors developed the SLHS in Zambia SL program after an initial preparatory trip to Zambia. During this trip, they met with various community partners and had discussions regarding the needs in the community and whether the program could meet some of those needs while also focusing on participant learning. This set the stage for meaningful community involvement during the course of the program.

Participant comments shared in the qualitative results support the impact of meaningful community involvement. Participants commented on increased cultural awareness via their engagement with the community-partner organizations, and experienced many positive emotions seeing the work being done by these organizations. Community partners were also asked to complete a brief questionnaire (see Appendix A) regarding the experience they had with the participants, using a 5-point scale ranging from strongly disagree (1) to strongly agree (5). Five community-partner organizations returned the questionnaire, and results were overwhelmingly positive, with mean ratings ranging from 4 to 5 ($SD = 0$ to $0.83$) on all questions, confirming the mutually beneficial relationship between the program and the community partners. All community-partner organizations indicated that they would like the team to return, with representative comments including “It was a fruitful day and time well spent. We hope to continue partnering with you as we continue helping the children with disabilities by lessening the burden of disability” and “Overall the students were a huge help and we really appreciated them. All our staff begged that the Purdue students return.”

Previous work in the professions of speech-language pathology and audiology has also shown that SL improved participants’ level of community engagement. Kaf and Strong (2011) reported that 85% of the graduate participants in their pediatric audiology course with an SL component improved their level of civic and community engagement, and 92% of parents were willing to receive student services again. Cokely and Thibodeau (2011) reported a mutually beneficial program, with all their community partners in agreement that the project goals were achieved. Pakulski (2011) reported overwhelmingly positive responses from the families that students worked with. Overall, the results of this study are consistent with previous work and add to the existing body of literature in this area.

Enhanced Academic Learning

A second key component of an SL program is enhanced academic learning. Two specific academic goals of the SLHS in Zambia program were for participants to increase their cultural competence and gain clinical skills. Although ASHA requires academic programs to teach students cultural competence, instructional models to incorporate teaching cultural competence in SLHS curricula vary considerably (Stockman et al., 2008). The results of this study document that a study-abroad program with an SL focus, despite a short duration, is a model that can increase participants’ cultural competence. Participant quotes from the themes of cultural awareness and emotional growth show that they gained not only a general understanding of cultural differences and similarities but also a deeper understanding about differences in the perception of disability, and that these learning opportunities led to emotional and personal growth.

Participant quotes from the theme of hands-on learning overwhelmingly support improved learning of course content and clinical skills in the SL context outside the classroom, connecting the classroom to the clinic and increasing participants’ confidence in their clinical skills. These findings are also in agreement with previous work that supports improved academic learning among graduate students using an SL program (Kaf, 2012; Kaf & Strong, 2011). Cokely and Thibodeau (2011) reported that the majority of their graduate students indicated that the projects strengthened learning of core concepts. The only report of SL in an undergraduate student context (Peters, 2011) also supports the proposition that the SL project enriched academic learning.

Purposive Civic Learning

The third key component of an SL program is purposive civic learning, which incorporates the three dimensions of Community Engagement, Cultural Competence, and Ethical Leadership (Levesque-Bristol & Cornelius-White, 2012). The results of this study show that participants showed a modest increase in the Community Engagement subscale of the PAS after the program, which was marginally significant. All participants rated Community Engagement between 4 and 5 on the 5-point scale on the pretrip survey, indicating that ceiling effects may have played a
role in the modest increase seen. It is also possible that by virtue of the sample of participants who elected to major in a helping profession such as SLHS, they were predisposed to be engaged with the communities, given their desire to be future clinicians.

Results of the PAS also show that participants had a significant increase in the Cultural Competence subscale after the conclusion of the program. This is of particular importance given the short duration of the program (2 weeks in Zambia). Quantitative data regarding ways to enhance cultural competence are lacking in the speech-language pathology and audiology literature, and the results of this study are among the first to report this. Other reports of international programs have been primarily descriptive (Crowley & Baigorri, 2011, 2012; McBride & Belus, 2014; Williams et al., 2013). Additional reports are needed to support the findings of this study.

Key components of the program that facilitated this civic learning included both raising awareness of social and cultural issues in Zambia in preparation for the program and intensive reflection throughout the program. Levesque-Bristol et al. (2010) reported that students are less likely to experience civic learning gains when they are not asked to reflect and SL is not meaningfully integrated into the course experiences. Reflection was a key component of the SLHS in Zambia program in multiple ways: daily journaling, final reflection papers, instructor-facilitated discussions after each day’s activities, and final debriefings at the conclusion of the program. Additional support of participant quotes on civic learning (from their journals and reflection papers) was obtained from field notes. These data are also consistent with previous reports (Kaf & Strong, 2011) but additionally showcase the benefits of guided reflection, which has been noted as an important element for success in SL programs (Levesque-Bristol et al., 2010), and specifically in audiology student learning (Cokely & Thibodeau, 2011). To the authors’ knowledge, this is the first report of quantitative data regarding civic learning outcomes in the SLHS professions in an international SL context.

Conclusions

The implications of these findings are that short-term study-abroad programs can be a mechanism to enhance student learning, including in the area of cultural competence, which is an important knowledge and skill as recognized by ASHA. Such programs can also provide a means for undergraduate students in speech-language pathology and audiology to receive valuable clinical training, which is often lacking in undergraduate curricula in the United States (e.g., Lorio & Abendroth, 2011). Two potential limitations of this study are the small number of participants and their diversity in terms of training level (ranging from first-year college students to graduate-level students). However, study-abroad experiences almost always involve a small number of participants, so this study accurately reflects involvement in a program of this nature. In addition, given the positive findings of the study, it can be argued that the diversity in training levels of the participants strengthens the outcomes.

As a final matter, some important considerations need to be addressed in order to ensure a quality short-term study-abroad program. Concerns have been raised regarding the ethics of “voluntourism” in short-term programs that are not sustained (Crowley & Baigorri, 2011, 2012; Hickey, McKenna, Woods, & Archibald, 2012). These are real concerns, and it is critical to keep these issues in mind as more and more international programs develop. Nevertheless, the findings of this study show that even a short-term study-abroad program, with the right preparation, can have a significant positive impact on academic and civic learning.

After the conclusion of the inaugural SLHS in Zambia program in 2013, a new team of participants returned in the summers of 2014 and 2015. Communication with community partners continues and community partners’ needs continue to be identified. Program objectives have evolved on the basis of these needs and now include a speech-language pathologist as part of the team, as well as training of local personnel to continue and sustain services. As our primary community partner stated when asked about concerns regarding the short-term nature of program: We now have a cohort of young individuals who will become professionals in the field of speech-language pathology and audiology, who will have a more realistic view of the world, and specifically of Africa, who can “be ambassadors and dispel erroneous images of Africa and provide a clearer image of Zambia” (field notes, 5/31/2013)—and that is a positive outcome.

Acknowledgments

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References


Appendix

Community Partner Evaluation Form

Name:________________________________________________________________________
Organization:__________________________________________________________________

This short survey provides us with valuable feedback on our student team. Please select a number to rate our team’s performance on a scale from 5 (strongly agree) to 1 (strongly disagree). Thank you for your input.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree (5)</th>
<th>Agree (4)</th>
<th>Neutral (3)</th>
<th>Disagree (2)</th>
<th>Strongly Disagree (1)</th>
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<tr>
<td>1. The students demonstrated an understanding of our organization and its needs.</td>
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<td>2. The students demonstrated professionalism in their behavior, attitude, and appearance.</td>
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<td>3. The students communicated well with organization staff members.</td>
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<td>4. The students were co-operative, willing to work and worked well with our organization’s staff.</td>
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<td>5. The students were courteous and dependable.</td>
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<td>6. The students took the initiative to help wherever needed.</td>
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<td>7. The students’ work met or exceeded our expectations.</td>
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<td>8. Overall, we were very satisfied with the performance of the students.</td>
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<td>9. We would like the team to return next year.</td>
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<td>10. We would recommend the use of the student team to other organizations.</td>
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Additional comments, questions, concerns, suggestions: