

**Evaluating an AAC training for special education teachers based in a low-resource country**  
**Long Abstract**

**Introduction**

It is estimated that globally 1.1-1.9% of the population experiences severe communication difficulties or has complex communication needs (CCN) (Bunning, Gona, Newton, & Hartley, 2014). An estimated 85% of children with disabilities live in low- and middle-income (LAMI) countries (Helander, 1993).

Children with CCN require assistance from their communication partners to learn how to communicate effectively using AAC (Binger, Kent-Walsh, Ewing, & Taylor, 2010). It is concerning that professionals such as teachers and paraeducators who work closely with children with CCN often lack the knowledge and skills required to implement appropriate AAC interventions with these children (e.g., Douglas, 2012). However, studies have documented that providing AAC training to communication partners can equip them with strategies that can facilitate increasing both the frequency and quality of communication interactions with children with CCN (Bornman, Alant, & Lloyd, 2007).

Most research on partner training in AAC has been conducted in developed countries. As a result, these findings may not be applicable in LAMI countries where there are significant differences in culture, economy, education, healthcare and technology. Two significant barriers in a large array of challenges to providing communication services in LAMI countries are the limited number of trained professionals and the lack of sufficient university training programs (Fuller, Gray, Warrick, Blackstone, & Pressman, 2009). In the United States, the number of speech-language pathologists (SLPs) serving the population in 2012 was a ratio of 43.5 SLPs per 100,000 people (ASHA, 2014). In stark contrast, a review of the number of SLPs across four countries in Africa in 2012 showed a dismal ratio of only one SLP serving 2 to 4 million people (Wylie et al., 2012 as cited in Wylie, McAllister, Davidson, & Marshall, 2013). In countries where there are a limited number of SLPs, the number of skilled professionals specializing in AAC is extremely small (Fuller et al., 2009). Therefore, the responsibility of providing AAC supports often falls on the individuals' communication partners. To date, the field has only a limited understanding of how best to support the development of knowledge and skills of individuals who provide AAC supports in LAMI countries (e.g., Bunning et al., 2014).

**Aim**

The objective of the current study was to investigate the effectiveness of an AAC training model for special education teachers living in Sri Lanka, a LAMI country.

**Method**

This study used an interrupted time-series quasi-experimental design (Shadish, Cook, & Campbell, 2002). The independent variable was the provision of AAC training to special education teachers living in a LAMI country, specifically Sri Lanka. The primary dependent variable was the number of evocative communication opportunities

provided by special education teachers during a naturalistic 10-min interaction. Evocative communication opportunities allow the child to take a more active role in an interaction. The secondary dependent variable was the number of communication turns taken by the students during a 10-min interaction. Nine special education teachers and nine students with CCN participated in the study.

The study consisted of four phases: pre-training, training, post-training and maintenance. Each session within the pre-training, post-training and maintenance phases lasted approximately 10 min and all these were videotaped. Sessions took place two to three times per week in the teachers' and students' schools.

## **Results**

Teachers provided a statistically significant higher number of evocative communication opportunities in the post-training and maintenance conditions as compared to the pre-training condition. During the three pre-training sessions teachers provided a mean of 2.07 evocative communication opportunities per 10 min session (range 0 to 16). During the post-training sessions this increased to a mean of 13.85 (range 5 to 28) evocative communication opportunities, and a mean of 15.05 (range 8 to 38) during the maintenance sessions. This indicates that the teachers increased their provision of evocative communication opportunities from pre-training to post-training. Additionally, these increases appear to be maintained during the two maintenance sessions.

Students took a statistically significant higher number of communication turns in the post-training and maintenance conditions as compared to the pre-training condition. During the three pre-training sessions students with CCN took a mean of 10.07 communication turns per session (range from 0 to 26). During the post-training sessions turns increased to a mean of 28.11 (range from 12 to 53) and to a mean of 28.16 (range from 14 to 47) during the maintenance sessions. Therefore, the students increased the number of communication turns they took from pre-training to post-training.

## **Conclusion**

The current study contributes valuable information on evaluating the effectiveness of an AAC training program on the number of evocative communication opportunities provided by special education teachers living in a low-resource LAMI country. Results of this investigation provided preliminary evidence that the training was effective in increasing the number of evocative communication opportunities offered by teachers to students with CCN. In addition, the training also positively benefited the students with CCN by resulting in an increase in their communication participation during naturalistic interactions with teachers. These results indicate that this training model may be beneficial for other LAMI countries with similar contexts. This investigation adds to the limited research base on AAC in LAMI countries. The poster presentation will describe the research methods used in the study, full results and discussion.

The authors disclose they have no financial or other interest in objects or entities mentioned in this paper.

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