

# Teaching Language Skills to an Adolescent with Autism Using Language for Learning

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## Background

Direct instruction (DI) programs based on language have been useful for educators working with students who have language delays that are associated with autism spectrum disorder (ASD) (Frampton et al., 2020). Using DI programs, such as Language for Learning (LL), have shown particular promise for children with ASD to gain language skills (Frampton et al., 2020). This DI program can have a similar impact on individuals with ASD who use augmentative and alternative communication devices, such as Proloquo2Go, a speech-generating device (SGD).

There has been very little published research on the use of Direct Instruction language programs with individuals who use AAC. The current study aims to contribute meaningfully to this body of research.

In this study, a non-vocal teenager with ASD was taught to increase his expressive language skills using Proloquo2Go. The student used a combination of symbols and the keyboard in the SGD to communicate responses during sessions. Pre and post-test data was collected and data was collected on the number of exercises completed firm per session.

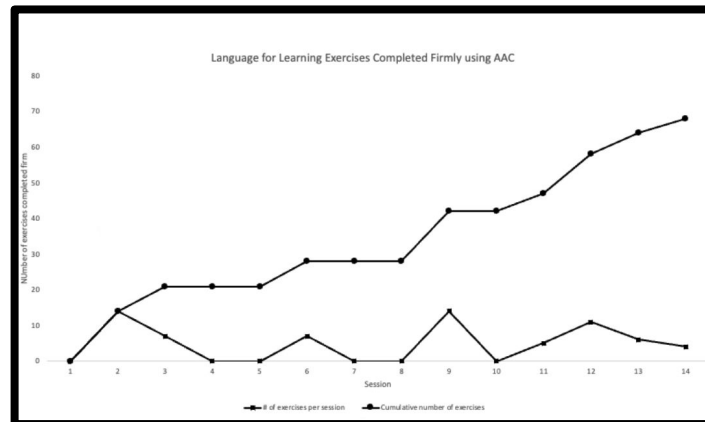
## Purpose

The goal of this intervention is to evaluate the effectiveness of using DI-LL with a non-vocal teenager with ASD to progress through the DI-LL lessons using modified techniques on the SGD to respond during lessons. Our team hopes to use this intervention to contribute to the expansion of the student's language repertoire and to provide the significance of using DI-LL with non-vocal students with ASD.

## Results

The student was able to complete DI-LL exercises using his AAC device, expanding his expressive language repertoire. There was a steady increase in the cumulative number of DI-LL exercises that were completed firmly by the participant using his SGD each session. On average, the participant was able to complete 5 exercises firmly per session. There was an improvement in the Language for Learning lesson 10 assessment score from 53% correct responses at pre-test to 88% at post-test. Results indicated that the student was able to complete DI-LL exercises as the session progressed, expand his expressive language repertoire, using his SGD and made significant improvement in post-test performance from pre-test.

## Graph



## Discussion & Limitations

Teaching DI-LL to non-vocal students who use SGDs to communicate is possible with some modifications. Setting up the SGD to include buttons that corresponded to responses in the first few lessons (e.g., Teacher asks, "What are you doing", Student responds with button saying, "Standing up"), supported responding on the device. As the lessons moved on, there was a combination of using buttons in different folders, and the keyboard to give full sentences as the responses, (e.g., I (button) am (keyboard) standing up (button).

Generalization was seen in responding to questions that were asked outside of programming, such as "What is that?" (student responded with "a bottle", which was one of the targets in the LL lessons), and answering "What is your name?" (student gave full name). Generalization across therapists was also readily observed.

Due to barriers with practicing using the SGD outside of the sessions, generalization outside of the sessions was not observed.

Currently, the use of the SGD is being generalized outside of the session, at school and with family members. Strategies to further increase and expand on expressive language using the SGD using DI-LL and Natural Environment Teaching are being utilized.

## References

Frampton, S. E., Shillingsburg, M. A., Simeone, P. J. (2020). Feasibility and preliminary efficacy of direct instruction for individuals with autism utilizing speech-generating devices. *Behaviour Analysis in Practice*, 13(3), 648-658.  
<https://doi.org/10.1007/s40617-020-00412-3>