10th Congress of Baltic States SLTs'

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Enhancing Preposition and Conjunction Acquisition through Remote Interactive learning: A Case Study

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SHORT INTRODUCTION

The study involved a 6-year-old latvian speaking boy, living abroad, receiving therapy entirely via a remote platform.

The 3-week intervention utilized a novel and complex technological realization - specific flow of events, what consisted of 4 main elements delivered all together. This technological realization was created and developed by the author.

The intervention targeted the **acquisition of complex grammatical structures—specifically prepositions and conjunctions—in a child with auditory processing disorder and language development** delay who previously struggled with these concepts.

OBJECTIVE[S] AND METHODS

OBJECTIVES:

Primary Goal: The primary objective of this study was to evaluate the efficacy of a fully remote language intervention utilizing interactive video lessons and moving visualizations*

Second goal: To determine if audiovisual stimulation delivered through a device, not in person, can provide the necessary language stimulus.

METHODS:

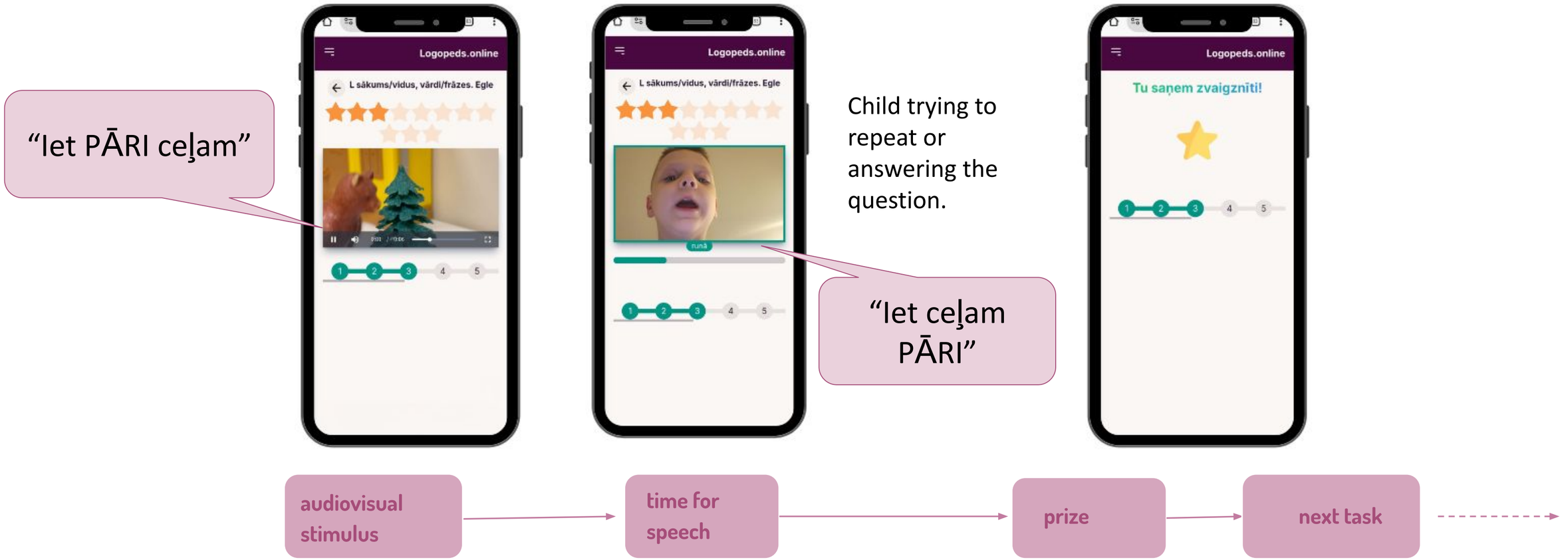
- **Moving visual support:** These lessons featured "moving visualizations" created by filming real-world toys and everyday objects in action (e.g., a car crossing the bridge) to provide a concrete spatial context for prepositions.
- **Acoustic Highlighting:** Strategic audio emphasis was placed on target words (*Ar, Un, Pie, Pāri*) to increase "acoustic salience" for the child.
- **Dedicated time for processing and child's speech:** After audiovisual stimulus, there was a 6-15 sec. time to repeat the speech or answer the question.
- **Gamification:** speech time was followed with a short, interactive "micro-reward" to prevent cognitive fatigue and maintain engagement.

Evaluation was conducted online at three intervals: baseline (Day 0), a control assessment (Day10), and a final assessment (Day 21).

*The intervention was delivered through platform https://logopeds.online.

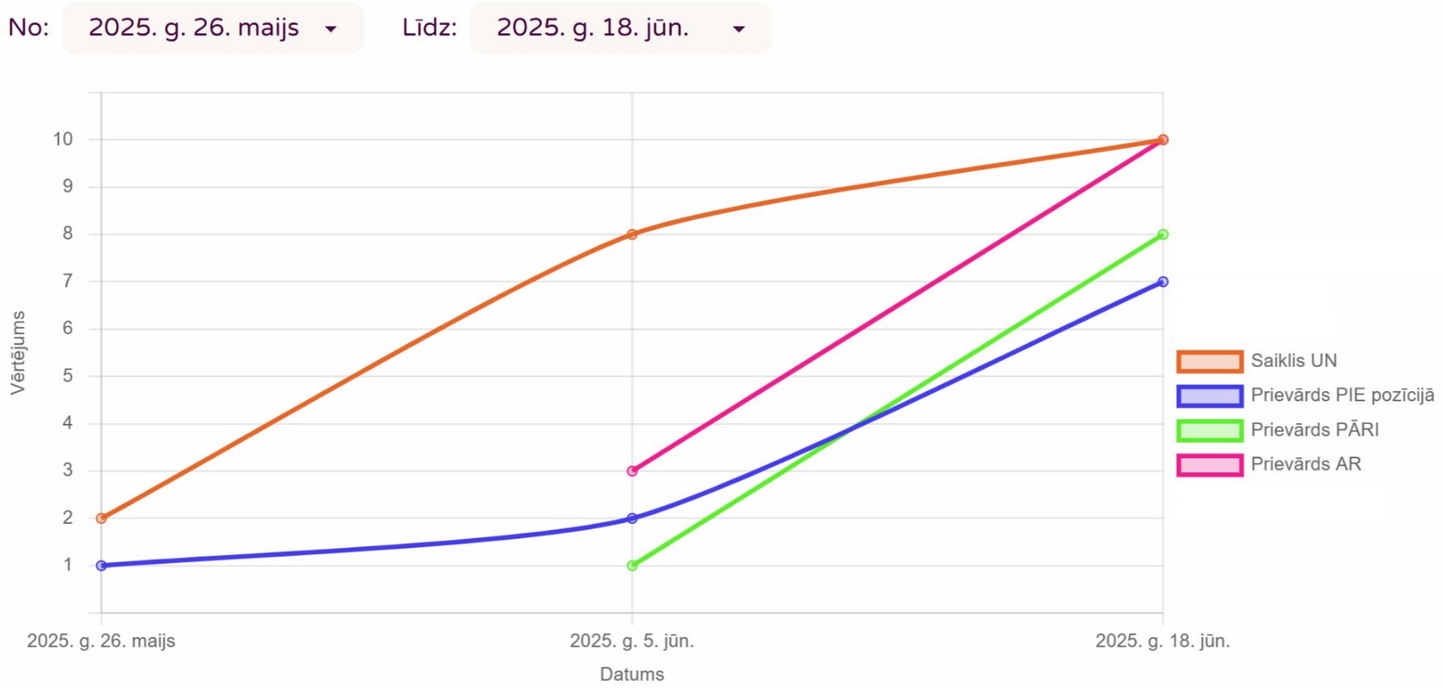
OBJECTIVE[S] AND METHODS

Intervention flow visualization



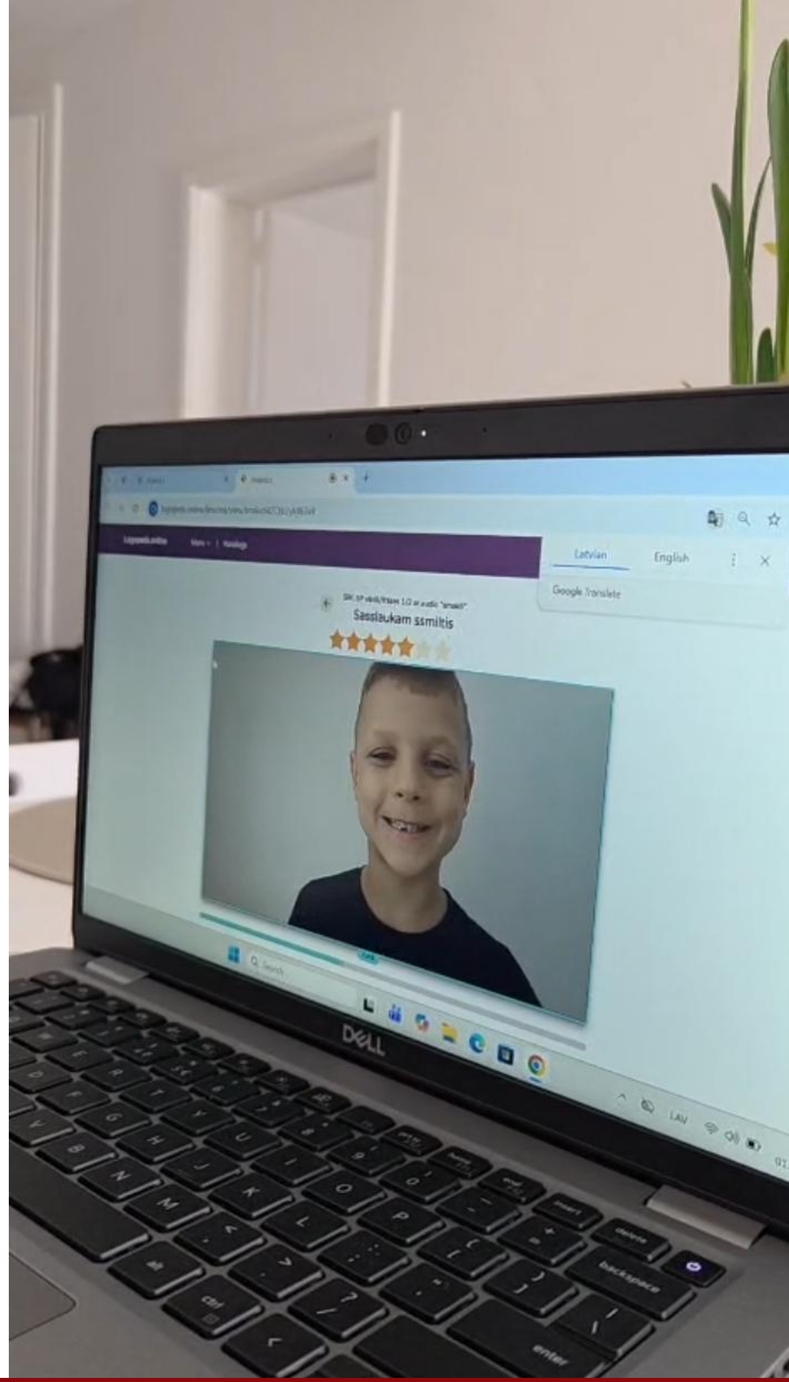
RESULTS

- The intervention resulted in the successful acquisition of four new linguistic targets. The preposition **"Ar" (with)** and the conjunction **"Un" (and)** became absolutely stable in the child's spontaneous speech.
- Significant clinical improvements were recorded for the preposition **"Pie" (at/by**) and the adverb **"pāri" (over/across)**, marking a substantial breakthrough in the patient's grammatical development.



CONCLUSIONS

- The results demonstrate that **interactive, visually-driven storytelling with audio-visual emphasis can effectively facilitate** the **stabilization of grammatical structures in a remote setting.**
- This technological approach provides a highly motivating environment for children with auditory processing challenges, proving that remote intervention can achieve significant functional outcomes in speech and language therapy.
- Audiovisual stimulation is as effective, even if delivered through a device, if the child's attention and engagement is maintained and managed.
- Storytelling is of high importance for keeping the child's engagement and attention.



Privacy notice: Consent for publication of these images was obtained from the child's parents.

REFERENCES

References (max. 3):
1.Telepractice - Grogan-Johnson, S., Gabel, R. M., Taylor, J., & Williams, C. J. (2011). A comparative analysis of speech-language outcomes for students receiving speech-language services via telepractice and face-to-face services. International Journal of Telerehabilitation, 3(1), 19-30.

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