

Multilingual Families Lab Short Research Report:

**linGrow: Development of a multilingual app to support home-school
communication of multilingual families**

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linGrow: Development of a multilingual app to support home-school communication of multilingual families



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Needs and Current Solutions

When families with preschool children and researchers or teachers don't speak the same language, miscommunication or communication breakdown can occur between parents and teachers. This communication breakdown has been exacerbated during COVID-19 as public health restrictions reduce opportunities for parents and teachers to speak.

In addition, researchers can find it challenging to complete online data collection with families. Teachers can find it hard to share accessible information with the parents. Parents can find it difficult to understand research studies and teacher information, complete activities suggested, support their child's learning, and advocate for their child's needs.

While there are applications for communication between parents and teachers, few can accommodate a wide range of languages. On the other hand, applications for translation are not able to allow for direct communication between parents and teachers. Additionally, these applications lack a learning component and video/recording modalities. We participated in the Neuro Nexus Challenge 2020 to develop a solution.

Methods and Results

We developed a prototype application as a solution: linGrow.

linGrow is a **free** and **accessible** application that helps multilingual families support their children's language development through interactive activities, allows access to

information on language acquisition, and facilitates communication between parents, teachers, and researchers.

linGrow offers the following features:

- Capturing, sending, and sharing videos of language activities
- Voice-over for increased accessibility
- Option to send voicemails
- Built-in translator
- Activities to support language development, and
- Individual accounts for researchers, teachers, and families
- Pastel colours used for simplicity and sophistication
- Dyslexia-friendly font used for inclusivity
- Simple English phrases and translations used to account for the variety of linguistic and literacy levels among users
- Security features to ensure data privacy between users

Future Directions and Conclusion

We will further develop the prototype to establish a complete, viable product with various activities and access to all the features in a secure system within the next year. This solution will directly impact families that struggle with communicating in English. Parents will be able to easily interact with teachers and researchers, as well as learn English through various activities on the web-app.