

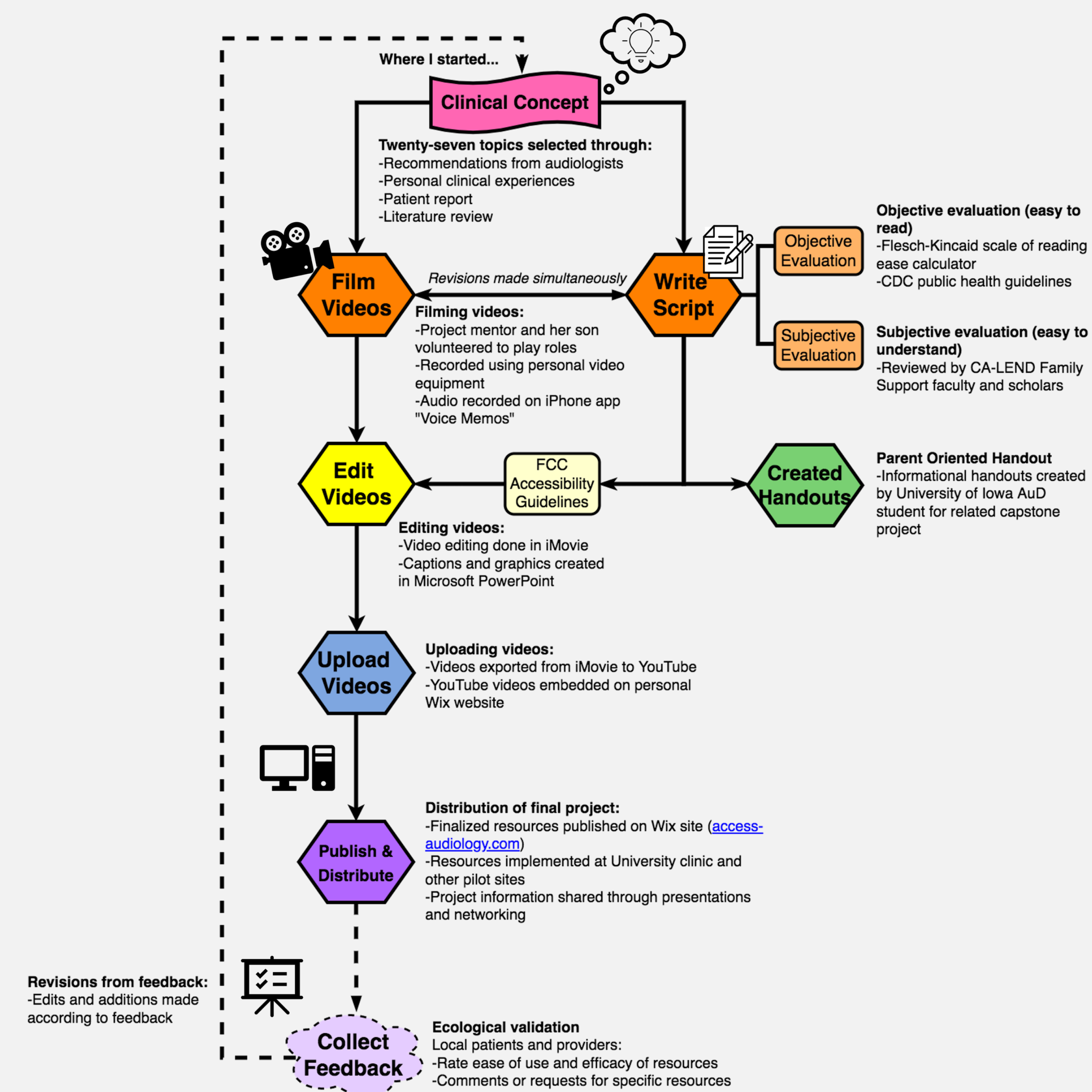
I. Introduction: Importance of New Resources

Approximately 90% of children with hearing loss are born to parents with normal hearing. This fact implies that for most parents, this is their first time thinking about what it means to have hearing loss or use hearing assistive technology. Typically, identifying hearing loss and determining appropriate intervention requires multiple clinical visits where parents are inundated with new information and unfamiliar terms. At each appointment, clinicians are navigating time constraints and varying levels of health literacy in efforts to describe the child's level of hearing, identify reasons for hearing loss, discuss opportunities for intervention, and predict outcomes and expectations. At the end of the visit, parents are given a brief moment to ask questions then sent home until their follow-up visit.

This project aims to create family-centered resources to facilitate learning and provide more efficient counseling for those caring for children with hearing loss.

II. Methods: Creating Visual Resources

Figure 1: Flowchart highlighting the steps of creating visual resources. Steps occur in rainbow (ROYGBV) order and generally flow from the top of the chart towards the bottom. Steps yet to be completed are indicated by dashed outlines.



III. Results: Completed Visual Resources

Currently, 25 custom-made videos related to hearing, hearing loss, hearing aid use, and communication have been created with consideration of individual learning style, language fluency, cognition, and level of hearing and vision. An additional 23 topics have been identified to better serve pediatric patients and families. All resources will be hosted on the main project's website, Access Audiology (www.access-audiology.com), for free and unrestricted use. Below is a list of the primary topics identified for parents and family members attending audiology visits. The resources currently available, at the time of completing this poster, are listed in bold, additional resources listed are in the process of being created.

Diagnostic Audiology

- **VRA evaluation**
- **CPA evaluation**
- **Tympanometry**
- **DPOAE results**
- ABR evaluation



Understanding Appointments

- **General pediatric visit**
- Natural sleep ABR visit
- Device programming

Hearing Technology

- HA listening check
- CI listening check
- Baha listening check
- Troubleshooting

Figure 2: Snapshots of project website landing page (left) and page with videos created for parents (right).



Figure 3: Snapshot of video explaining Visual Reinforcement Audiometry (VRA) evaluation (top) and corresponding parent informational handout (bottom).

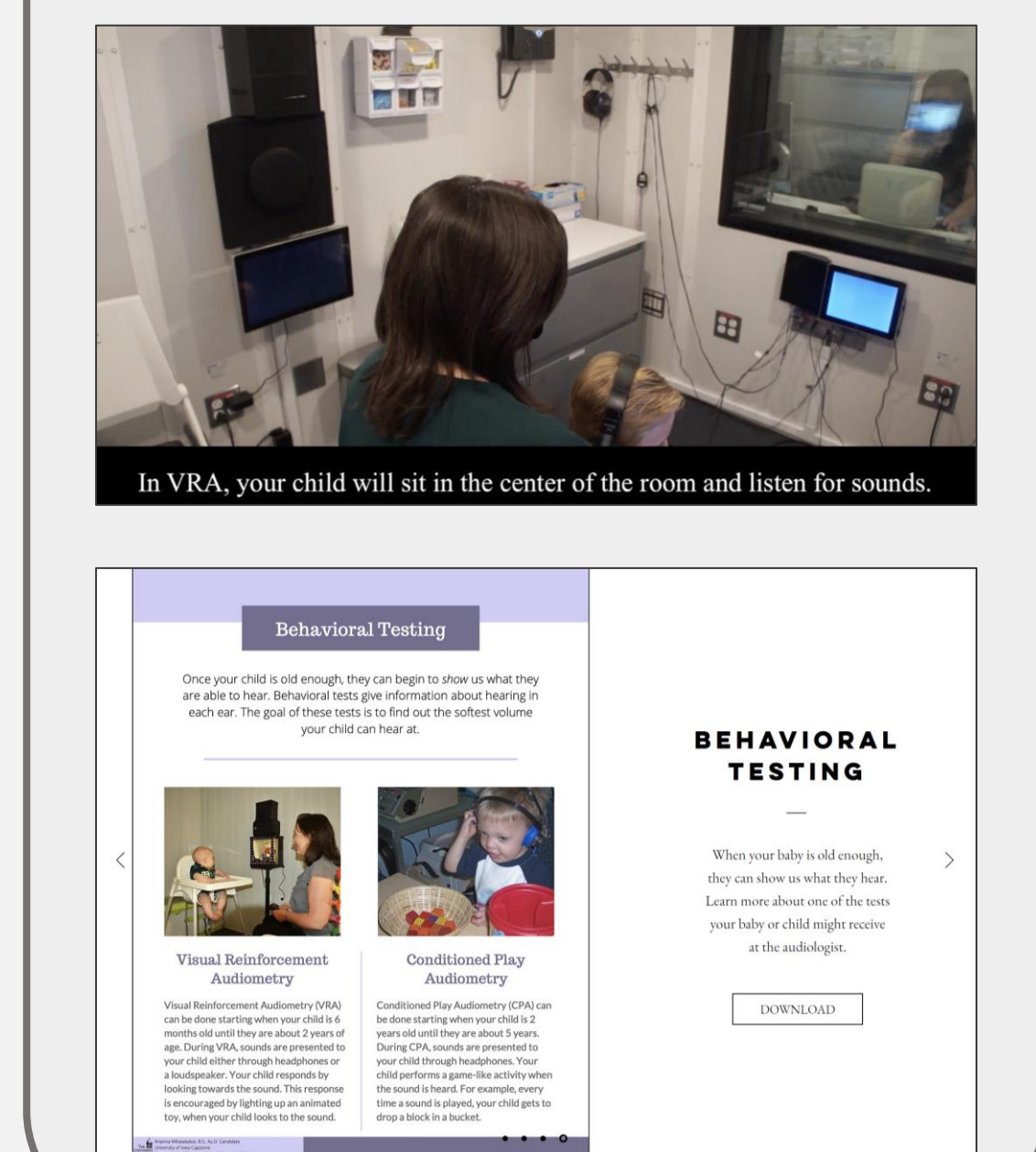


Figure 4: Snapshot of video explaining tympanometric evaluation (top) and a corresponding parent informational handout (bottom).

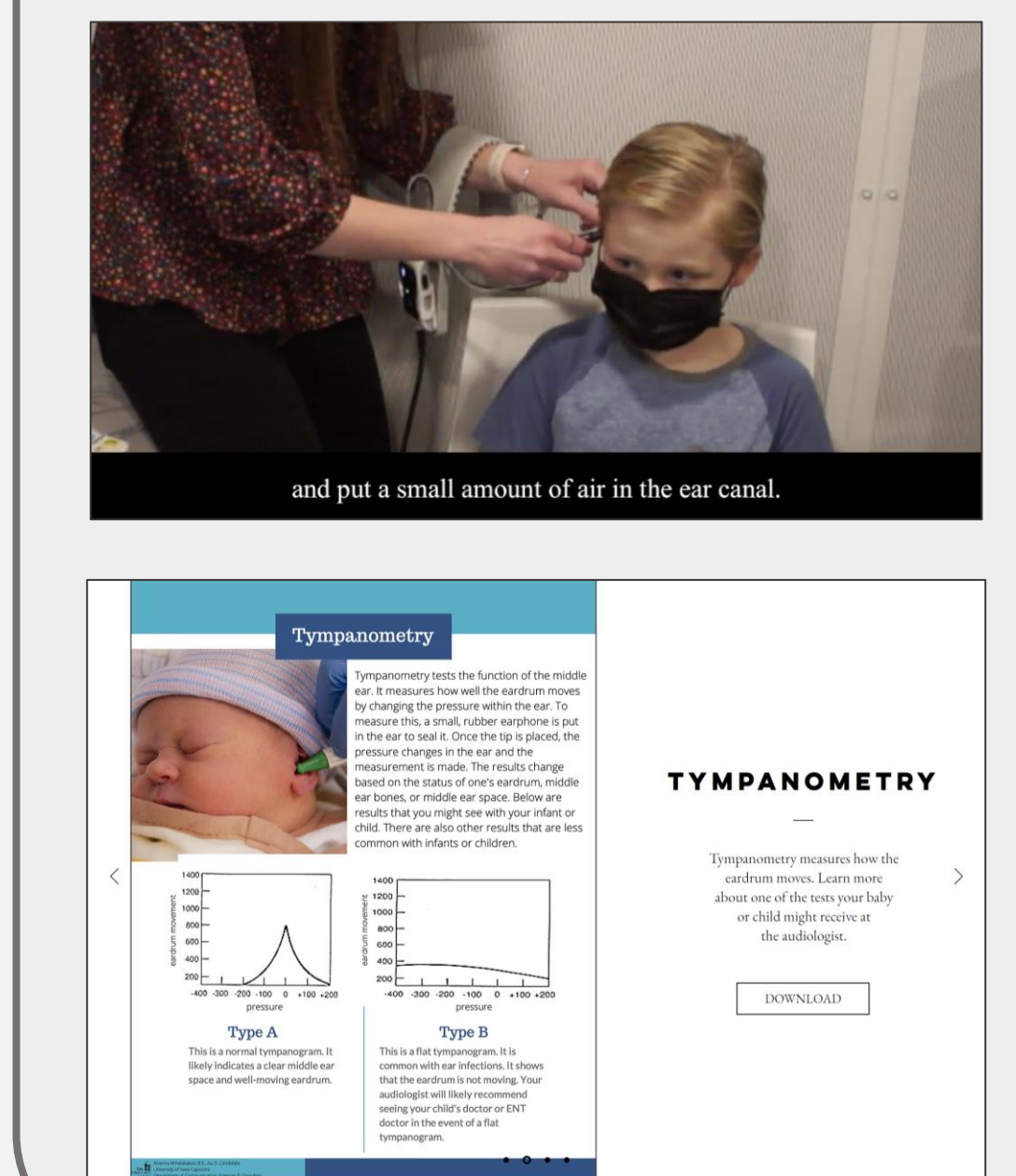
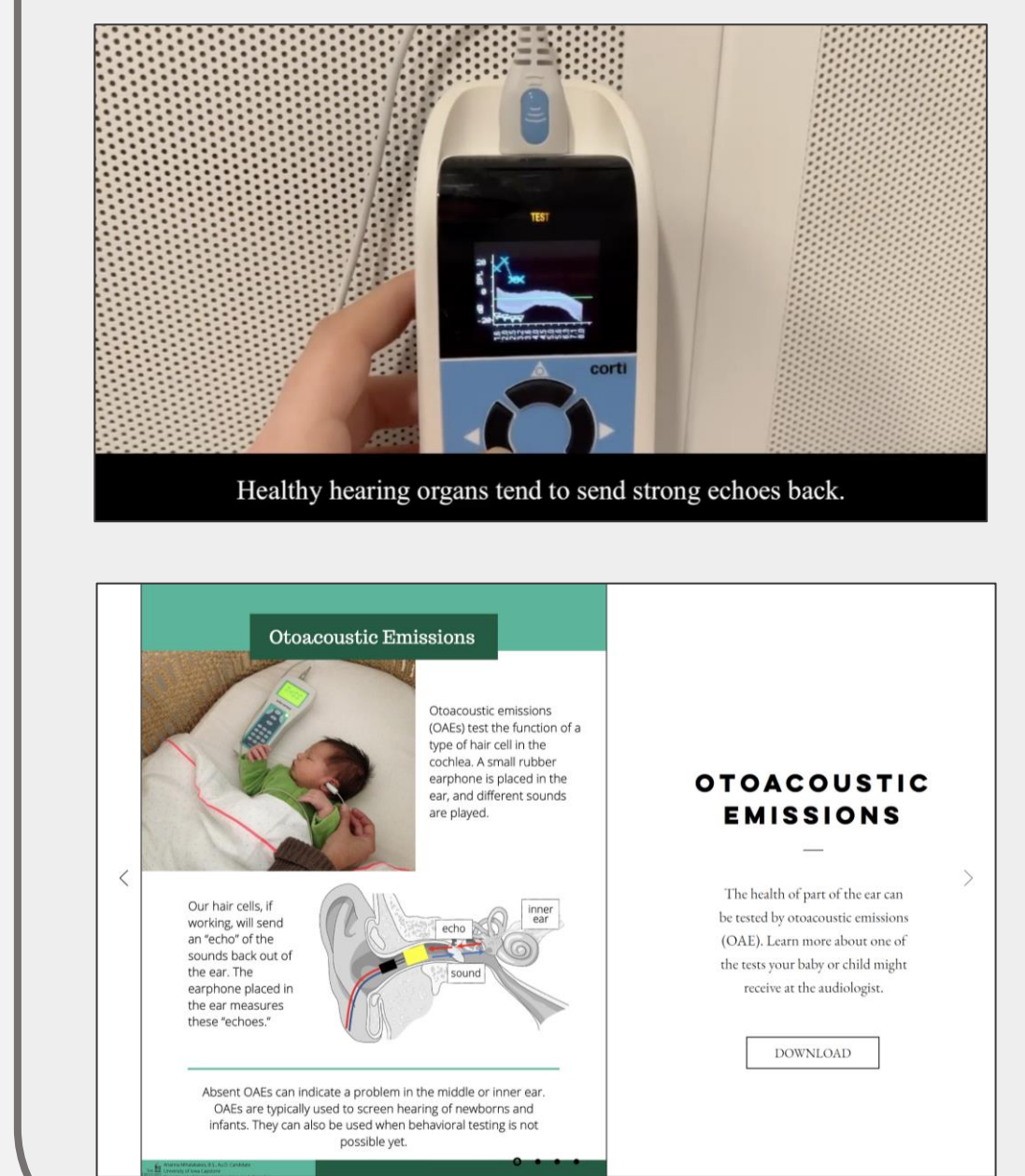


Figure 5: Snapshot of video explaining process of obtaining DPOAE responses (top) and a corresponding parent informational handout (bottom).



Please contact Erin to learn more or provide feedback:

erinbkaufmann@gmail.com

Website for project and resources: www.access-audiology.com

Presented at Early Hearing Detection and Intervention (EHDI) Annual Conference 2022

Funded by the Maternal Child and Health Bureau

IV. Discussion: On-going and Future Work

Overall, this project will improve parents' education of clinical audiology topics by providing independent access to content catered to learning style and literacy levels. However, there are still several limitations with the work including: diversity among complex patient population, rapid changes in hearing technology, individual's level of comfort with computers, remaining reliance on some English fluency, and project time constraints.

Ongoing work on this project includes:

- Collaborations with CA-LEND Family Support faculty and scholars
- Collecting feedback from patients and providers
- Additional content (e.g. ear impression process, rechargeable, etc)

Future work on this project includes:

- Additional collaborations to provide multi-lingual resources
- Routine upkeep as feedback is collected and hearing technology changes

Acknowledgements



We would like to acknowledge support from the California Leadership Education in Neurodevelopmental Disabilities (CA-LEND) program and its faculty as well as ongoing support from our individual academic institutions, the University of Iowa Department of Communication Sciences and Disorders and the San Diego State University School of Speech, Language and Hearing Sciences.

Financial support has been provided for presenting and distributing this project through CA-LEND and its associations with Children's Hospital Los Angeles (CHLA) and the Maternal Child and Health Bureau.

References

1. Dearfield, C. T., Barnum, A. J., & Pugh-Yi, R. H. (2017). Adapting Paulo Freire's Pedagogy for Health Literacy Interventions. *Humanity & Society, 41*(2), 182-208.
2. Desjardins, J. L., & Doherty, K.A. (2009). Do Experienced Hearing Aid Users Know How to Use Their Hearing Aids Correctly? *American Journal of Audiology, 18*, 69-76.
3. Fleming, N.D., & Mills, C. (1992). VARK. *A Guide to Learning Styles*. [On-line: <http://www.vark-learn.com>]
4. Guise, N.B., Koonce, T. Y., Storrow, A. B., Kusnoor, S. V., & Ye, F. (2012). Using Health Literacy and Learning Style Preferences to Optimize the Delivery of Health Information. *Journal of Health Communication, 17*, 122-140.
5. Kochkin, S. (2005). MarkeTrak VII: Customer satisfaction with hearing instruments in the digital age. *The Hearing Journal, 58*, 30-43.
6. Oyler, A. L. (2012). Untreated Hearing Loss in Adults – A Growing National Epidemic. Retrieved from <https://www.asha.org/Articles/Untreated-Hearing-Loss-in-Adults/>
7. Vidyard (2019). 2019 Video in Business Benchmark Report., 20-23. Retrieved from <https://www.vidyard.com/press/2019-business-video-benchmarks/>