What We Have Learned from EELS-I

- Deaf children from signing families as young as three years of age who demonstrate higher levels of ASL and fingerspelling skills show higher levels emergent literacy, such as knowledge of the English alphabet.

- Growth rates (the rate of change from year to year) in literacy are highly correlated with early language exposure and skill.

- Deaf children who are provided early, consistent, accessible exposure to a first language develop stronger receptive skills in that language (regardless of whether it is spoken English or ASL) than children who have less consistent or accessible exposure to either spoken or signed languages.

- The inter-correlations among ASL, fingerspelling skill, and early literacy suggest an underlying single language construct that develops in deaf children from ASL-English bilingual families.

- Early ASL and fingerspelling skills contribute, not only to emergent literacy, but also to enhanced cognition and greater school readiness, as measured by indicators of social competence.

- ASL skills enhance, and do not damage, the emergent literacy skills of deaf children with cochlear implants.

- Parents from homes in which a language other than English or ASL is used (e.g., Spanish), hold different beliefs and attitudes towards deaf education that can impact educational outcomes.

- Findings from the behavioral analyses in EELS I are consistent with the findings from cognitive neuroscience regarding the benefits of early language exposure and acquisition for brain development.

The Early Education and Literacy Lab (EL2)

The EL2 team studies individual and group differences among children and the impact that these differences have on emerging cognition and literacy, especially in young deaf and hard of hearing children. The team conducts classroom and home-based studies and has made novel discoveries about the factors that contribute to the development of healthy and optimal literacy in a deaf child's early years.

With the EELS-II project, EL2 expands its work to evaluate achievement development among older children, and to study growth patterns in math and writing, as well as in literacy.

Extended Education Longitudinal Study (EELS-II)

A follow-up study of deaf children from the 2010-2013 Early Education Longitudinal Study (EELS-I) conducted by the National Science Foundation/Gallaudet University Science of Learning Center on Visual Language and Visual Learning (VL2)

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A Longitudinal Study Extended

From 2010 to 2013, VL2 researchers conducted a national longitudinal study (EELS-I) of deaf children who were between the ages of 3 and 5 in the study’s initial year. We collected information in three successive years from parents, teachers, and administrators; and we conducted assessments of each child’s language, emergent literacy, and cognitive levels. Since the conclusion of data collection in 2013, we have been busy analyzing and publishing the results of this study. We have learned much about factors that contribute to a deaf child’s very early literacy success.

But there is much more to learn!

Do these factors also contribute to later success in reading, writing, and mathematics?

Children who were three years of age in 2010 are now nearing age eleven, and those who were five are nearing age thirteen. The timing is perfect for us to discover whether our earlier discoveries and predictions persist throughout childhood. We are pleased to announce the launch of EELS-II, an extension of EELS-I, in which we will continue our study of the trajectories of academic growth of deaf children throughout their elementary and middle school years.

What We Want to Learn from EELS-II

- Do the factors that predicted early literacy among pre-schoolers also predict their higher-order reading skills later in childhood?
- Do these factors predict performance in other academic achievement areas, such as writing and math?
- Over time, do some subgroups of children, for example, children with cochlear implants, children with deaf parents, or children from Hispanic families, demonstrate different levels of academic success compared to other groups?
- Do salient aspects of academic placement predict academic performance?

Project Timeline: 2018-2020

Year 1: 2018-2019
- Contact families from EELS-I
- Identify additional schools and classes for expanded sample
- Contact current schools of EELS-I participants and schools selected for expanded sample.
- Assemble assessment tools
- Administer tools and questionnaires

Year 2: 2019-2020
- Merge EELS-I and EELS-II data
- Conduct statistical analysis
- Disseminate information through journal articles, presentations, research briefs and policy papers.