

RESOURCES FOR PARENTS: FACILITATING VISUAL LANGUAGE ACQUISITION

Liana Price, Faculty of Education, University of Manitoba
Dr. Charlotte Enns, Faculty of Education, University of Manitoba
Dr. Lynn McQuarrie, Faculty of Education, University of Alberta

ABSTRACT

Most deaf children are born to hearing parents who have no knowledge of signed language and are, therefore, challenged in providing language models for their children. Since timing in language development is critical, this project focused on facilitating parents' signing skills to promote their children's American Sign Language (ASL) acquisition and visual learning. The goal of this project was to create online resources and materials that encourage parents to learn ASL and engage their children with developmentally appropriate practices. Synergy with the ASL acquisition research provided the basis for activities and games to promote the development of specific language structures. Sample activities will be displayed/demonstrated and the ways that they incorporate several approaches to language development will be outlined. In particular, the activities include ASL games, communication/language facilitation strategies, and vocabulary development. Feedback from families that participated in the pilot testing will also be discussed.

This project is based on the importance of early and consistent exposure to language models to facilitate children's later language learning. Early visual experience can afford young deaf children with higher cognitive advantages to enhance social and academic development. This early exposure must begin in the home, and parents require access to materials and activities that are effective and engaging.

INTRODUCTION

The purpose of this study was to extend the findings from the American Sign Language (ASL) assessment measures, implemented in previous studies, to develop instructional materials and resources for parents. Preschool is a critical time for language and literacy development. A deaf child's ability to communicate with his or her parents or caregivers and siblings is key to developing intimate and enjoyable family relationships that benefit everyone. Early language acquisition and communication development, therefore, as well as the development of child-family relationships are primary early intervention focus areas for families with deaf children.

Parental involvement is a critical factor in the language acquisition of deaf children and perhaps the only controllable variable of language acquisition (Anderson, 2006). Challenges for non-signing parents include: a) learning a new language in a new modality, b) lack of confidence in American Sign Language (ASL) skills, c) conflicting information from professionals regarding efficacy of ASL, and d) continually developing skills to stay ahead of their deaf child (Bailes, Erting&Thuman-Prezioso, 2009; Singleton & Newport, 2004). The implications for deaf children in non-signing families may be significant, and include: a) identity formation/sense of belonging is compromised without a shared language (Valentine, Sporton, & Bang Neilsen, 2008), b) critical period for language learning is missed (Mayberry, 2007), and c) school readiness is delayed and deaf children lag behind hearing peers (Marschark& Spencer, 2011).

The overwhelming majority of deaf children are born to hearing parents who cannot sign and are not familiar with strategies to facilitate visual engagement and visual language development. Hence, there is an urgent need for training materials designed for hearing parents and based on empirical data. This study begins to meet that need and provides families with information and strategies to facilitate ASL acquisition in deaf students at a young age.

Research Question: Using the American Sign Language (ASL) acquisition research can we create play materials that encourage parents to learn ASL and engage their children with developmentally appropriate language learning practices?

Hypothesis: Providing parents with readily available, and research supported, visual language resources, games, and materials will, 1) promote a positive attitude towards learning ASL, and 2) increase parent-child interaction.

Alternate Hypotheses: Providing parents with readily available, and research supported, visual language resources, games, and materials will cause parents to, 1) learn ASL incorrectly, if they misapply the materials, and 2) become frustrated without a live language model to teach them.

METHOD

- Determine “target” language structures based on previous research (Morere& Allen, 2013 ;Simms, Baker,& Clark, 2013) and ASL acquisition data (Enns & Herman, 2011; McQuarrie, Abbott, &Spady, 2012; Schick, 2010).
- Create teaching and learning activities to support acquisition of visual engagement and discreet ASL language targets:
 - Videotape Deaf parents interacting with their preschool children in everyday play situations; edit out examples of language facilitation strategies such as getting attention, turn-taking, repeating, expanding, and following child’s lead; create video tutorials that demonstrate and highlight these interaction patterns.

- Recruit Deaf community members (varying in age and gender) and record them signing the vocabulary and phrases for the ASL dictionary.
 - Create games to teach the ASL structures of verb agreement, size and shape specifiers, and negation (three early developing key grammar structures).
 - Put together information from experts (affiliated with the Visual Language and Visual Learning Center - VL2) related to the brain, signed language, bilingualism, and language acquisition and create presentations in a parent-friendly format.
 - Interview non-deaf parents with deaf children about their experiences using ASL; record these interviews and edit to create video tutorials.
 - Search for existing parent resources (books, articles, websites, videos) and organize them into easily searchable topics.
- Develop a website framework to include structures that support the ASL video to English print dictionary (linking print with video); allows for multiple video tutorials; and can host a searchable database of resources.
 - Implement a pilot study with 5 families (with preschool children) to systematically collect feedback on the effectiveness of the teaching and learning activities (specifically the ASL Games) and the video tutorials:
 - Findings suggested that parents were able to implement the activities with minimal support (through the video tutorials) and positive parent-child interaction occurred through the ASL games.
 - Feedback regarding improved instructions, demonstrations, and materials was provided by parents.
 - Adjust and modify materials and procedures based on pilot study results.
 - Upload all materials and resources onto the parent-friendly and easily accessible website.

RESULTS AND TRANSLATION IMPLICATIONS

Moving new knowledge from scientific research into the public domain and to action has been an ongoing challenge in the field of deaf education. This project is a research knowledge translation (KT) initiative developed to facilitate the uptake of research and to address the gap between what is known from research and the application of this knowledge at the home level - by parents interacting with their children.

Knowledge creation is composed of three phases: 1) first-generation knowledge (knowledge inquiry), 2) second-generation knowledge (knowledge synthesis), and 3) third-generation knowledge (creation of knowledge products and tools). Based on our previous work in Phase 1 (knowledge inquiry – ASL acquisition research) and phase 2 (knowledge synthesis – ASL developmental milestones) we have now completed the third phase in our knowledge creation process with the development of knowledge tools and products. Our goal in this phase of the research was to develop creative and engaging materials to help parents facilitate signed language acquisition. To that end, a parent toolkit website has been created that includes a variety of activities and resources. The Parent Toolkit Website (linked to the VL2 Parent Information Package website) includes three types of knowledge translation (KT) resources for parents:

1. Video Tutorials – Making Visual Sense!

- *Words and Worlds: The Science of Learning and Visual Language*
A summary of research conducted by Dr. Laura Ann Pettito and VL2 colleagues on the brain and visual language is presented in a parent-friendly and accessible format.

- *Learning Together: ASL Games for Families!*
Three games are explained and demonstrated through a series of video clips. Each game is specifically designed to target the development of an important grammatical structure of ASL:
 - Feed the Farm Animals (verb agreement),
 - Handshape Match-Up (size and shape specifiers)
 - No! (negation)ASL signs are modeled on video, and pictures and other print materials to support the games can be downloaded directly from the website.

- *Communication is Fun!*
Examples demonstrating visual engagement and attention, use of gestures, touch, positioning, following children's lead, turn-taking, repeating, expanding, and other strategies for language play are highlighted in everyday parent-child interactions.

2. Find-a- Sign

This is an online dictionary of over 300 words and phrases commonly used by parents and children linked to video clips of ASL signs. The dictionary is organized into categories that represent parents' needs and children's interests, for example, "animals", "colors", "feelings", and so on.

3. Resource Database

The list of over 100 resources is searchable by both topic and type (books, websites, apps, and articles), making it easy for parents to find information

related to language and communication, learning activities, school readiness, parent support, and ASL materials and resources.

The primary risks in providing this kind of open access is that without in-person support, parents may learn ASL incorrectly or may become frustrated with the process and give up.

Steps taken to address the risks:

1. The website presents a variety of **real-life families** interacting with signed language to represent that there isn't "one right way" to do things and that parents are not perfect. The purpose is to help parents feel comfortable interacting visually and to gain confidence in their signing skills.
2. The use of **video demonstrations** ensures that ASL is modeled correctly and provides three-dimensional representation of signs so that they can be copied by viewers more easily and accurately.
3. The website is intended to **supplement** other methods for learning ASL – suggestions and resources for taking ASL classes or joining parent-child programs will be mentioned and encouraged.
4. Opportunities to **contact** the researchers are provided on the website and we intend to be responsive – hopefully any parents who become frustrated will reach out so these concerns can be immediately addressed on an individual basis.

CONCLUSION

This project provides parents with evidence-based strategies to promote their children's acquisition of ASL and visual learning. Early exposure to a language-rich environment is beneficial for deaf children's linguistic, social, and cognitive development. Early visual language experience can afford young deaf children with higher cognitive advantages to enhance social and academic development. It is also clear that effective resources and guides are needed to provide parents with the information and tools required for the task of facilitating their own and their child's ASL acquisition. This is one of the key objectives of the current research project focused on fostering the visual language acquisition in families with deaf children. Resources and materials are now available and accessible for all families through the Parent Toolkit Website: <http://vl2.educ.ualberta.ca>

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