

# ECC Times

March 2011

THE EARLY CHILDHOOD CENTER AT THE ROCHESTER SCHOOL FOR THE DEAF

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Dear Parents,

It is wonderful to be here in the Early Childhood Center as the Interim Director. I had the pleasure of meeting some of you either at the Sandbox event or when you stopped by Denton Hall.

Your children are in great hands with our teachers, teaching assistants and others who work closely with them. However, you as parents are vitally important in your child's education and development.

I have attached an article, "Advantages of Early Visual Language" that is definitely worth reading. The key point in the article is that the higher level of family involvement there is, the better your child will be in language and overall development. You as parents have the most important role ever.

There is another wonderful piece called, "Through Your Child's Eyes" that is worth viewing. Like the article, it shows the value of, and need for, American Sign Language for early language acquisition. This beautiful and touching film highlights the value of connection and communication through American Sign Language.

- *All babies benefit from sign language. Thousands of hearing babies learn to sign before they talk. ASL is a language for the whole family and community.*
- *Vision is the natural pathway for brain cognition, connections and language acquisition for deaf and hard of hearing children. It taps into the child's strengths.*
- *ASL supports the development of written and spoken English and other languages.*

(Continued on Page 2)

Rochester School for the Deaf 1545 St. Paul Street, Rochester, NY 14621

*The Premier Provider of Educational, Developmental and Evaluation Services to Deaf and Hard-of-Hearing Children and Their Families*

To learn more, please contact us today at 585-336-5807 (Voice) or 585-336-5808 (TTY) or visit our website at [www.RSDeaf.org](http://www.RSDeaf.org)

- *Children can easily acquire and use more than one language at the same time.*
- *ASL is one of the most widely used languages in the United States.*
- *Time is of the essence. Infancy is a critical period for language access and language acquisition. But it's never too late – hearing people of all ages can learn ASL*

www.throughyourchildseyes.com <<http://www.throughyourchildseyes.com>>

I hope to meet all of you real soon. Please do stop by to say hello whenever you are in the building.

Spring is around the corner! What an exciting time for children to be outside!

Susan C. Searls  
Interim Director, Early Childhood Center

**During Spirit Week there was a Banner Contest.  
This is a picture of the banner for ECC...**



**THE BEST ALL-AROUND AWARD GOES TO...**

***The ECC Department!!***

**Go WILDCATS!!**



## Discipline Parents should be on the same discipline team

Your child breaks a rule, and you and your partner respond differently. One of you wants to give your child a consequence. The other wants to forgive and forget.

Discipline is most effective when parents on are the same team. To get on track:

- \* Accept reality. Parents often have different opinions. Decide to disagree privately and present a united front. If your child sees a disagreement, resolve it peacefully.
- \* Plan ahead. Make a family rulebook that includes basic, agreed-upon rules that apply to children and parents.
- \* Use a signal. If a discipline dilemma is on the horizon, use a signal to tell your partner, "Let's talk somewhere else."
- Consult the experts. Read a parenting book or take a parenting class together to stay on the same page about discipline.

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## Create a home environment that increases attention span

Experts say that a normal attention span is about three to five minutes for each year of a child's life. So a four-year-old should be able to focus on a task for at least 12 minutes.

There are lots of things you can do at home to help increase your child's attention span. Here's how:

- \* Make sure your child gets enough sleep. Most preschoolers need 11 to 12 hours of sleep each night. A sleepy child can't pay attention.
- \* Feed your child a healthy diet. A balance of whole grains, fruits and vegetables and lean protein give your child the "brain food" he needs to pay attention.
- \* Follow a routine. Young children like to know what to expect. It gives them a sense of order. Often, this carries over to their behavior and attention span.
- \* Encourage exercise. Preschoolers are naturally "wiggly" and need to move. Your child should get some exercise every day.
- \* Do activities with your child that promote attention span. Read daily. Put together puzzles, draw, color, play with blocks and play simple board games.
- \* Keep it positive. Preschoolers may not hear the word don't at the beginning of a sentence. So, instead of telling your child what not to do, tell him what you want him to do.

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### ***Parent involvement is a major key to kindergarten success***

Research shows that parent involvement in kindergarten can help students academically and socially. When you reinforce what your child learns at school, you raise her chances of success. To reinforce learning:

- \* Communicate with the school. Review school papers, talk with the teacher and volunteer when possible.
- \* Establish good habits. Help your child complete homework at the same time each day. Choose a quiet, comfortable, well-lit spot.
- \* Ask questions. Talk with your child about school. Say things like, "Teach me something you learned today."
- \* Plan outings. Find ways to expand on class lessons. If your child learns about animals, take a trip to a zoo or farm.
- \* Read together. Spend at least 10 minutes a day reading with your child.
- \* Limit TV and video games. Don't let technology interfere with reading, talking and playing with friends.

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### ***Building Math Skills***



### ***Playing with blocks can build your kindergartner's math skills***

Playing with blocks helps your child think in a way that lays the foundation for future math skills. Here are some of the math skills your child learns through blocks:

- \* Identifying shapes and how they fit or stack together. Your child will learn about shapes all through school. This skill is the basis for geometry and other higher math.
- \* Making patterns. All of math is somehow based on a pattern. Your child is practicing patterns as he stacks up a red block, then a yellow block and then another red block.
- \* Adding and subtracting. Your child will frequently put another block on his tower, or decide it's too big and take one off. He is learning about addition, subtraction and the concepts of more and less as he does this.

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NSF supported Science of Learning Center on Visual Language and Visual Learning, SBE-0541953, Gallaudet University.

## VISUAL LANGUAGE & VISUAL LEARNING RESEARCH BRIEF:



# ADVANTAGES OF EARLY VISUAL LANGUAGE

JANUARY 2011



LEARNING FROM  
RESEARCH

# 2

### Key Findings on the Advantages of Early Visual Language:

- The brain is most receptive to language acquisition during “sensitive periods” early in a child’s development.
- Deaf and hard of hearing children who receive early intervention services have been found to have better language outcomes up to age five.
- High levels of family involvement have been found to produce greater language development outcomes in deaf and hard of hearing children.
- Acquiring a complete first language during early childhood is critical for later reading comprehension.
- Learning two languages [that is, American Sign Language (ASL) and English] is advantageous for deaf and hard of hearing children.
- A mother’s signing skills are predictive of later language development in deaf or hard of hearing children.
- A language foundation is an important factor in spoken language development.

## Early Hearing Detection and Intervention

For almost twenty-five years, since the passage of PL 99-457 in 1986, young deaf and hard of hearing children and their families have received early intervention services. Age of identification has been found to be an important factor; therefore providers of early identification and intervention services aim to screen, diagnose, and provide services by 6 months of age.<sup>1,2,3,4</sup> However, early language acquisition is not necessarily a medical event. Early language intervention requires specialists who are knowledgeable of both visual and spoken language development. They work with families to make informed communication and educational decisions.

Over the past 20 years, numerous studies have consistently found that the earlier hearing loss is identified and the earlier intervention services are initiated, the more positive the outcomes will be for language development.<sup>1,2,3,4,5,6,7</sup> In a recent study, deaf and hard of hearing children who received early intervention services prior to three months of age had better language outcomes.<sup>8</sup> Certainly, during infancy and early childhood, sensitive periods for language acquisition correlate with the brain's development.<sup>9</sup> Additionally, early identification has been found to moderate factors that previously had negative effects on language development: for example, socio-economic status, family ethnicity, and the presence of additional disabilities.<sup>1,3,7</sup>

## Multiple Pathways to Language Learning

Each deaf child acquires language in his or her own unique way. Level of hearing loss, cause of hearing loss, age when hearing loss occurred, the extent of benefit from hearing technologies, presence of additional disabilities, and family dynamics vary from child to child. Multi-sensory approaches to language acquisition ensure that when one pathway is less effective, another pathway can be used as

an avenue for language learning. Early research in bilingual education found cognitive benefits from learning two languages; bilinguals have been reported to have greater cognitive flexibility and greater sensitivity to linguistic meaning than monolingual children.<sup>10,11,12</sup> Deaf children can experience similar cognitive benefits from learning American Sign Language and a spoken language through print and listening and speaking when appropriate.<sup>13</sup>

## Academic Performance of Deaf and Hard of Hearing Students

Early language has ramifications for academic achievement. Deaf and hard of hearing children underperform in comparison with hearing children of similar ages in most content areas, and especially in the area of reading.<sup>14,15,16</sup> This is a long-standing trend that has not changed regardless of the use of various communication methodologies and the invention of new hearing technologies.<sup>17</sup> Despite uneven outcomes,<sup>18</sup> some cochlear implant teams are now advising families of children with implants to participate only in auditory-verbal therapy, and in doing so, are ignoring the enormous potential of a visual pathway to learning.<sup>19</sup> The lack of early and fully accessible visual language exposure may be a contributing factor to the low levels of reading achievement in the deaf population.<sup>13,14,15,16,20,21,22</sup>

Delay of language acquisition can have negative consequences on cognition, academic achievement, and social and emotional health.<sup>13,17,18,23,24,25</sup>

In contrast to children using auditory-verbal therapy, most children from deaf families enter school ready to learn because as infants and toddlers they acquired a complete first language through communicating with family members who are fluent in ASL.<sup>26</sup> These children tend to perform similarly to what is expected of hearing children at the same age.<sup>8</sup> Given signing adult language

models, deaf children with hearing parents can also acquire visual language competence and become literate.<sup>13,27</sup>

## The Advantage of Early Visual Language

Delay in the acquisition of a first language produces poorer language performance,<sup>28,29,30,31</sup> regardless if the language choice is a signed language or a spoken language.<sup>9</sup> In addition, without access to a complete linguistic code during early development, it is difficult for deaf and hard of hearing children's language acquisition to parallel that of hearing children.<sup>32</sup>

Fortunately, the language areas of the brain have no preference for language input.<sup>24,33,34</sup> The most accessible pathway for full access to linguistic information for many deaf children is through vision.<sup>13</sup> Visual languages such as American Sign Language are natural language systems.<sup>9,20</sup> Visual languages are not merely signs that represent spoken language; they function independently from spoken languages and have fully developed grammatical systems.<sup>35</sup>

Some innovative early intervention programs have recognized the need for early visual language learning in children receiving implants. In one such program, a study revealed that children who were exposed to sign language while waiting for cochlear implants developed receptive language: they understood comments, questions, explanations, commands, and they were signing simple phrases.<sup>36</sup> In these programs, children achieving the most effective language outcomes signed early, suggesting that having access to early language, regardless of the modality, can provide a base on which skills in a different language modality can be built.<sup>36,37</sup> After implantation, these children developed spoken language. The sign lexicon that the children acquired before implantation most likely facilitated rapid mapping onto speech.<sup>36,37,38</sup>

## Signed Language and Spoken Language Development

Early language experiences create the ability to learn throughout the lifespan, regardless of the mode of communication.<sup>9</sup> Signed language is sometimes withheld from deaf children in the belief that it interferes with speech development.<sup>19</sup> However, there is no evidence that using a signed language with deaf and hard of hearing children impedes spoken language development.<sup>19,39</sup> Rather, spoken language skills increase as children learn more gestures and signs.<sup>25,40,41</sup> Proficiency in ASL has been shown to positively influence spoken language development and the development of English literacy in deaf students.<sup>16,42,43,44</sup> It is language that facilitates spoken language, not the mode of communication.<sup>45</sup>

## Benefits of Bilingualism

There are linguistic and educational benefits of learning two languages (for example, American Sign Language and spoken/written English).<sup>46</sup> Deaf children can acquire two languages simultaneously when adult language models follow language allocation strategies, where the amount of exposure to a spoken/written language is increased as the child acquires first language competence.<sup>47</sup> ASL, in many cases, functions as a first language or (L1), which supports the acquisition of spoken/written English as a second language (L2). On the whole, bilingual research has shown that fluency in a first language is a strong predictor of second language skill; competence in a second language is a function of proficiency in a first language.<sup>48,49</sup>

## Family Involvement

Family involvement is a critical factor in the language development of deaf and hard of hearing children, especially those with hearing parents.<sup>2</sup> It is important to note that high levels of family involvement produce higher language outcomes.<sup>2</sup> In addition, maternal signing skill appears to be another powerful indicator that results in better

language performance in deaf and hard of hearing children.<sup>6,18</sup> Further, these factors have been found to buffer the negative effects of late enrollment in early intervention programs.<sup>2</sup>

## Integration of Research in Education

VL<sup>2</sup> publishes research briefs as a resource for educators and parents. The goal is to inform the education community of research findings, to summarize relevant scholarship, and to present recommendations that educators and parents can use when addressing the multifaceted challenges of educating deaf and hard of hearing children.

The information provided in this brief is intended to clarify the importance of early visual language development in deaf and hard of hearing infants and toddlers.

Research briefs are available at [vl2.gallaudet.edu](http://vl2.gallaudet.edu).

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