Signed Communication – A Scaffold for Language Development.

Every child is unique and will develop at different rates. However, to maximise their development, babies and young children need to be communicated to and feel active and valued in their role as communicator right from the beginning. (EYFS guide lines). From birth a child wants to communicate and they thrive when their physical and emotional needs are met. At first they will do this mainly through crying. From as early as six weeks sounds of contentment can be heard such as 'ooh' and other gurgled sounds. It is not long before sounds of babbling develop, and from 12 to 18 months speech may be present but may be difficult to understand. It is surprising to know that many people still believe that this limited communication is all that babies are capable of producing. However, with decades of extensive research as evidence, it may be a complete revelation to discover that babies and young children are able to convey specific needs and wants to their carers before they can even speak. There is no doubt that children need to feel secure, safe and happy as these are the basic ingredients for a solid foundation upon which a child can learn and grow. But they also need continual support to acquire social, emotional, cognitive, communication and language skills to enhance their development so that they can reach their full potential for learning. Without these things a child may struggle. How is a baby or young child able to achieve this? Experts in child care development and research shows that sign language can greatly contribute to all these skills.

By using simple signs from British Sign Language, which builds upon a child's natural gestures, it can greatly contribute to all of these skills. And yet many people today still think that Sign Language is only used by Deaf people, their families or by people who work with Deaf people, like interpreters. Sign language with babies and young children is not a new idea. It has been around for a few decades and practical systems have been in place to teach parents and carers how to sign successfully with their children. (SIGN *wit*h *you*r BABY Dr Joseph Garcia 1999).

Research shows that Sign language is a multi-sensory tool that contributes, and is most beneficial, to a child's development especially in their early years. Experts in childcare development tell us that the most crucial time of a child's development is from birth to three as it is a time when their brains are making important connections and they are primed for learning. As this is the case, it would be prudent for parents, primary carers, childcare professionals and Educators to take advantage of this critical period in a child's life. So we need to find out why is British Sign language beneficial to a child? What evidence proves that Signed communication for young hearing babies and children can aid their development? How does sign language help them? The aim of this paper is to explore these questions and to show how signed communication supports the development of a child in social, emotional, cognitive and language skills. Firstly we will explore what the effect sign language has on a child's brain and cognitive development.

Many people have researched the use of sign language with young hearing children. Marilyn Daniels is a highly distinguished and respected professor of communication arts and sciences at the Penn State University in America. She has completed extensive research into the benefits of teaching sign language to hearing children. Her highly acclaimed book *Dancing with Words: Signing for Hearing Children's literacy*, provides powerful evidence of how sign language improves children's English vocabulary, reading ability, spelling proficiency, self esteem and comfort with expressing emotions. We will look at, in particular, the latter two points in this paper. But it is interesting to discover why sign language helps in these areas.

Language is primarily processed in the left hemisphere of the brain. The two main language-processing centres are the 'Wernicke' area and the 'Broca' area. Both of these lie on the left side of the brain and are responsible for specific jobs in connection with language comprehension and speech.
(www.sparknotes.com/psychology/neuro/brainanatomy/language.html)
Research by Kolers in 1963, Goggin and Wickens in 1971, showed that with each language (which includes sign language) acquired, the brain has its own separate memory store on the left hemisphere. What is unique about sign language is that it requires visual images and

movement, which is controlled by the right hemisphere of our brains. So, by introducing signed communication to babies and young children you are stimulating both sides of their brains and helping form more of those important connections or synapses.

Drs Linda Acredolo and Susan Goodwyn are well known for their extensive research on how signed communication benefits babies and young children. They discovered that babies that used signed gestures had significantly higher IQ's in follow up research tests at the age of eight. Dr Maryliyn Daneils also designed a study with 16 hearing children who knew ASL (American Sign Language). All but one of the children had deaf parents. She found they scored 17 percent higher on the tests that she administered than the hearing children who did not know any ASL. Further studies with larger groups have found the same results. When we consider that we take in more information visually, sign language as a visual language has to play an important part in a child's cognitive development. *A growing body of research on brain development shows the more stimulation a child is exposed to at an early age the more intelligent he or she is likely to be.* As sign language increases the overall activity of the brain, it must be the vital stimulation that a baby and a young child needs to help them reach their true potential.

A recent study shows another reason why sign language is important to introduce to babies and young children at an early age. This study may also explain why a 3 year old can speak a couple of languages with ease but a 36 year old that has been learning Italian for 4 years still struggles to put a sentence together. The visual and spatial demands of sign language appear to activate a specific part of the brain, the right angular gyrus, according to what the researchers say. However, only those who learn non-spoken languages from birth seem to develop the full potential of this brain area.
http://web.archive.org/web/20020126214900/health.yahoo.com/search/healthnews?lb=s&p=id:7021 The research suggests that "*there is a critical time period for learning both spoken and sign language. The researcher Newman explains that "He suspects the right angular gyrus, like other brain structures, is more "plastic," or adaptable, during childhood. At that stage, it can be recruited for language tasks, whereas later in life it can't become specialized for language.*

"Early language exposure is really important. When we see differences in proficiency related to language acquisition and age of language acquisition, it probably is due to differences in brain plasticity."

And Marilyn Daniels sums up why sign language works, she states:
'All language whether sign or spoken is not eye stuff, or mouth stuff, or ear stuff; it is brain stuff. But the brain depends on movement, and the brain needs vision and the brain creates meaning, and the brain relies on memory, and the brain interacts with the hand, and the brain uses play; when sign language is employed with children, as a result of all the overlapping integrated brain activity, the language centre of the brain actually grows. This is why sign language works'. (Daniels 2001)

Now that we understand the importance and the impact that sign language has on the brain let us explore how sign language can help contribute to the development of spoken language skills of babies and young children.

People often get confused over the difference between language and speech. The concise Oxford dictionary provides us with this definition of these two words.

Language is: "*the method of human communication either spoken or written, consisting of the use of words in a structured and conventional way".*

Whereas speech is defined as: "*The expression of or the ability to express thoughts and feeling by articulated sounds".*

So language involves the use and the meaning of words and the syntax (word order) and the grammatical rules. One of the worlds most leading authorities on signing with babies and young children is Dr Joesph Garcia. He wrote *'When you sign with your baby you are not teaching them signs you are teaching them language'*

Semantic understanding is the aim of all communication (Greene & Coulson, 1995). So by using sign language with babies and young children in everyday activities you are helping them learn language and understand the world around them. Language development enables a child to communicate, express and organize thoughts and feelings.

(Early Years foundation Stage Practice Guide-EYFS.) You are giving the child the means to talk before they can talk. This can only lead to a reduction in frustration for the baby and for the caregiver because everyone is communicating and understanding one another. As regards to speech the studies have shown that language comprehends in words always precedes production. The studies carried out by Acredolo and Goodwyn found that babies that learned to sign spoke earlier than non-signing babies. Furthermore, when they did talk they developed larger vocabularies and were more confident. No doubt this is due to the fact that they had a large signing vocabulary and understood the meaning of words first before they had devolved their fine motor skills required for speech. To speak requires the development of dozens of muscles in the face, mouth, and tongue and the coordination of these muscles with the flow of the breath over the vocal folds in the larynx. From a purely developmental point of view babies achieve the ability to construct language with their hands at least six to twelve months earlier than they do with their vocal apparatus. (Daniels 2000) In studies carried out, hearing babies exposed to both ASL and English were able to communicate more complex messages through the use of signs than they could verbally. *(*Griffith, P.L. (1985*). Mode-switching and mode-finding in a hearing child of deaf parents. Sign Language Studies, 48, 195-222).*

Sign language supports oral language in two ways. It can benefit those with limited speech or who are learning English, for example, as a foreign language. Signs are of an iconic nature and therefore they look like the object and provide added meaning to the word. Secondly, sign language provides a multi-sensory tool, which provides repetition of a word, which increases memory. If a parent said and signed a word their child would have to pay attention, so they would have to 'see' the sign and 'listen'. This gives repetition of one word through two different channels and helps to imprint it on their minds.
An Increase in a child's vocabulary is valuable as it gives solid foundation for literacy in reading and writing. Signing, because of its iconic features can give clues to words to aid the child's memory. Furthermore, words that are spelt the same, but mean different things, can be easily understood by signs because the signs are so different. You could say that the signs act as a visual aid that helps explain the meaning of a word. For example, take the word 'Toast.'

This can mean a slice of bread browned on both sides by exposure to heat, or it could refer to a call to gather people together to raise their glasses to drink together in honor of a person or thing. (Oxford concise Dictionary) As the signs for these words are very different sign communication can assist a child in the comprehension of language.

Other benefits for using British Sign Language Vocabulary.

Sign language is a multi-sensory tool that will appeal to the 'Visual' learner'. The child has to watch and pay attention otherwise they may miss the communication. Or the 'Audio' learner' A child has to also listen for instruction Or the 'kinesthetic' learner.' When the child does the signs they are active participants in learning. (Felzer, L. **A 1998)** If a child is able to express their needs, wants, feelings and ideas to others that understand them, this has a positive effect on their development. Firstly, they will have more confidence and self esteem because they are being understood. They will also feel valued because their attempts to initiate conversation are recognized and acknowledged. A child's communication can be seriously damaged if they are ignored or interaction with them is avoided. Signing with babies and young children require more engagement with the child, which can only enhance a child's communication and strengthen relationships. Furthermore, signing with babies and young children helps integrate children with disabilities and speech difficulties. If more were encouraged to use sign communication it would enhance their social skills as they are given the means to express themselves thereby connecting with their caregiver and other typically developing children that have been taught British Sign Language. Signing is something that all children with different abilities can engage in without the need to feel threatened or excluded. In particular for Deaf children, if more hearing children and educators signed then Deaf children would be truly integrated and not isolated as they have been even in our modern system today.

The Early Years Foundation Stage (EYFS) is the government's standards for learning, development and care for children from birth to five. Within the six areas of learning it is interesting to note that British

Sign Language can support each area to enhance a child's development. Attached is a chart that demonstrates this.

In conclusion Dr Daniel states: " Sign language has many advantages for hearing children. It influences a child's ability to attend: often increases self-esteem: boosts enthusiasm and readiness to learn."
Sign Language is such a powerful tool that can open up a child's mind and optimize their learning. Sign language is indeed, a Scaffold for building communication with our babies and children now and well into the future.

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