

Fast ForWord®, FFW Orientation

Questions of interest

1. What can the FFW Family of products do to help our children in their academic pursuit?
2. How can it be incorporated and adapted in their classroom and curriculum?
3. What is FFW?
4. What are the benefits of FFW Family of products?
5. Who might be a FFW candidate?

Appendix

1. A paper presented at the Learning Disability Association Conference on Feb. 25, 1999 ***Access to Reading: the Language to Literacy Link*** by Martha Burns, SLP
2. A reprint from *THE WALL STREET JOURNAL* ***Survival of The Busiest*** on brain plasticity
3. Stanford independent research proof of the FFW effectiveness
4. Fast ForWord® Family of Programs and the answers to the Who, Why, How questions
5. Survey as to your child needs and benefit from any of the FFW Family of programs.

I. What can the FFW Family of Products do to help your Child socially and academically?

Based on neuroscience and cognitive-linguistic/psychoacoustics research on:

1. Plasticity and reorganization of the Brain neural structures and wiring
 - ***Michael Merzenich***
 - ***Survival of the Busiest***
 - ***Stanford University Research team under John Gabrieli and their interest in the Brain activities***
2. Phonological impairment experienced by children with Learning Disability, LD &/or Dyslexia by ***University of California, San Francisco under Paula Tallal***
 - Identifying – distinguishing phonemes of a typical rate of processing, &
 - Pairing them with the printed form

The Fast ForWord® products target the Child's cognitive skills, **MAPS**

Memory: - Auditory and Visual Memory

Attention within highly distracting environments

Processing of tonal differences, speech sound, words and sentences while adding meaning to the auditory and visual stimuli, and

Sequencing skills tonal movement patterns, speech sounds in words & words in sentences with meaning.

While relying on **FAST** power of learning, the learning principles, i.e. by providing your Child with:

Frequent and intensive provision of stimuli, in an
Adaptive manner, either going forward and moving faster or slower pending on the student level of performance, learning and success, with the
Simultaneous development of the different skill area targeted, and providing
Timely motivational rewards

Achieve the necessary cognitive learning skills & related changes in the neural structures. This is while improving on your child's receptive & expressive oral language along the **FFW Language and Literacy programs**.

Transitioning them from the learned/acquired or improved oral language to that which is formal and academic- The Printed form along the **FFW Language to Reading or Advanced Literacy programs**.

Insuring their ability to decode-read and comprehend at grade level along the reading series of **Rd 1 – 5**

For further in-depth information, please refer to www.scientificlearning.com flash tour.

II. How can the newly acquired cognitive skills and language learning enable and support your Child socially & in class:-

1. Freeing the Child's Mental Energy

A. *The Child improves on his/her ability for:*

- Auditory and visual memory
- Attention to Task
- Processing of oral & written information, and
- Sequencing of ideas

B. *The Child is better able to learn*

- Participate
- Follow through
- Learn with ease

The Child is no longer challenged, consumed or drained.

All of which improve on his/her self-esteem and confidence and increases his/her level of motivation, and in turn feed into greater learning.

2. Better and improved oral Language

The Child's improved oral-verbal language and higher level of thinking abilities translate into greater readiness for reading with comprehension.

Long standing research has indicated that:

- **73% of Children with reading problems had early language delays/disorders, &**
- **75% of children with early language delays/disorders end up having reading problems**

What is the relation of oral – social language to formal written academic language?

1. *Phonemic Awareness and Decoding*

If a child has difficulty recognizing and distinguishing sounds in words

E.g. **at** in **C at** and **B at**

If a child has difficulty perceiving the difference between sounds in words

E.g. between **C & B**

The Child will have difficulty associating sound to letter

Associating 44 English sound with 24 English Alphabet letter

S/he will therefore have difficulty decoding-reading

2. *Reading with comprehension and Language Structure*

Comprehension of connected text depends on the acquisition of the language structures, the reader's oral language abilities is in the form of: -

- Understanding the meaning behind a word
- Understanding & perceiving semantic relationships
- Understanding syntactic relationships & rules of grammar

Neurologists and Speech-Language Pathologists have been for years convinced that:

- **Reading Abilities are superimposed on Language**
- Learning Language and learning to read are reflected in the same areas of the
- Brain: Those areas are active in most complex language activities
 - § Left Frontal Lobe, Broca's area, &
 - § Left Temporal Lob, Werniche's area, &
 - § The fibbers linking both areas

Therefore it comes with no surprise that the children who have language learning problems also have problems learning to read and to read with comprehension.

What are the Building Blocks and Typical Language Development of Children born with Normal hearing and Cognitive Potential?

Let's look at typical development and early signs to find the link between oral language and reading skills: -

Babies

Are bombarded with sounds, much of it is oral language vs. environmental sounds.

Infants

Quickly learn to categories speech sounds into recurring units and patterns

Figure out which sounds (phonemes) signal differences in meaning

E.g. **mama vs. papa**

6 months old

Begin to practice those sounds by bubbling

1 year old

Gradually learn how to group/combine sounds into meaningful words

Learn to form up several groupings (single words), first words

E.g. **“Mama” & “Dada”**

2 years old

Learn to combine sounds to form words

Learn how words combine to form different meaning - Semantics, 2 word or pivot phrases

E.g. **“Mama see” vs. “See Mama”**

3 years old

Learn how to combine words & word endings into sentences, Syntax, MLU + 3.1 with 900 words

Learn how to use language to communicate needs, make requests & get information, Pragmatics

All 4 areas: - Phonemic awareness, semantic & syntactic relationships and pragmatics combine to make the children successful communicator upon entering school at 5 years of age and prepare the grounds for reading

Delayed phonological and expressive syntactic skills predict poor reading 3 years later

3 to 4 years old

Build their vocabulary up to 1500 words

Speech is intelligible

Use increasingly grammatically complete compound and complex sentences

**Poor speech discrimination leads to poor phonological awareness
Syntax delay predicts poor reading at 7 –9 years of age**

Kindergarten

Pre-school helps children to develop phonemic awareness and association of sound to letterform – phonics, i.e. helps them to read - decode

Reading involves

1) Higher level language and thinking skills, i.e. meta-linguistic skills, the ability to think about language and the ability to understand that:

§ **Words can be broken into smaller parts – syllables**

§ **Words have sound patterns that match other words. E.g. beginning of words**

§ **Phonemic awareness form the foundation of phonological skills &**

§ **Association of sound to letter form – Phonics, &**

§ **Learning to sound out (decode) words**

2) Learning to map words to meaningful constructs for comprehension, this requires solid vocabulary and understanding of grammatical syntax.

3rd grade and Higher

Those not on tracks with phonemic awareness by grade 3 are at greater risk for lasting reading problems.

To super impose reading on a limited or immature language base i.e. limitation of phonological awareness, semantic and syntactic relationships will experience some degree of failure.

Intervention

If by the end of the expected age range the child is behind or lacking in any of the essentials for successful reading; s/he should be seen by a professional for assessment.

Early intervention would prevent ¾ of our reading problems

Speech and Language therapy alone is not sufficient and limited in scope

Phonological awareness training alone is not sufficient for increasing reading comprehension

What is required according to the reading research is a range of language skills:

§ *Phonological*

§ *Semantic*

§ *Syntactic*

§ *Meta-linguistic, &*

§ *Verbal working Memory*

One type of broad-based intensive language training program that works with the necessary skills for reading is: Scientific Learning's FFW training programs developed by a Psychoacoustic, Paula Tallal and a leading neuroscientist, Michael Merzenich at Rutgers University and the university of California, San Francisco respectively.

For further in-depth information on FFW family of programs and independent research in support of the FFW effectiveness, please review www.scientificlearning.com flash tour

III How can the FFW training be incorporated in the classroom and supported by the Child's classroom curriculum

The FFW training is ultimately a **tool** in support of the student in achieving greater learning and academic success. The CD-ROM computer based interactive FFW Family of products are based on patent technology capable of generating weekly if not daily **progress tracker**. The reports profile the student's performance, skills and needs on each of the encountered trial during his training- 5 days/week for 6 to 8 weeks. The reports are shared with the Student's classroom Teacher to modify, adapt or **tailor the curriculum so as to incorporate the Student's needs in his/her natural classroom environment for further practice and in support** of his/her training.