

What Is Your Research Base for *ABC Phonics: Sing, Sign, and Read!*

Seven Practical Principles of the Brain that Make a Dramatic Difference in Student Achievement



1. **Emotional engagement is the key to all-powerful learning.** For information to go into long-term memory and be available for recall, it must be emotionally charged. It is the "emotional" limbic system that tells the "rational" neo-cortex what to pay attention to.

2. **The brain is a social brain.** Build a **cooperative and non-competitive** learning environment where children feel a sense of belonging. A supportive, non-threatening social-emotional climate allows learning to be maximized. Knowledgeable teachers can "scaffold" children's literacy to a higher level. Vygotsky calls this the "zone of proximal development". The social skills developed in these encounters with teachers and peers are vital for success in school and life. Remember, **talking and singing develop neurons in the brain - not listening.**

Nancy Atwell, director for The Center for Teaching and Learning, says that her school's two essential goals are "to **engage children in authentic activity and engage them in sustained, continuous talk.**" What she and the teachers strive for, she asserts, "is to **have kids lose themselves passionately in tasks.**"

3. **Elaborative rehearsal strategies are necessary for building memory connections.** Children must do something with new information to personalize and integrate it. Engage children in active, authentic learning, or simulations, through singing, signing, dancing, drawing, discussing, creating a play, building a model, or participating in a storyline. Experiences in the educational arts allow information to be stored on a deeper, more memorable level. For new information to be available for recall, it needs to be stored in rich, connected networks of neurons.

"Dittos don't make dendrites." - Susan Kovalik

4. **The brain is a musical brain.** The rhythms of sound have a powerful impact on cognition. The only language you remember with word-for-word accuracy from childhood is songs and rhymes. Singing can create a relaxed, joyful mood - the optimal state for language learning. **Songs allow the brain to chunk large amounts of information into a single memory space** thereby accelerating learning naturally. **Music and rhymes are powerful hooks to long-term memory.**

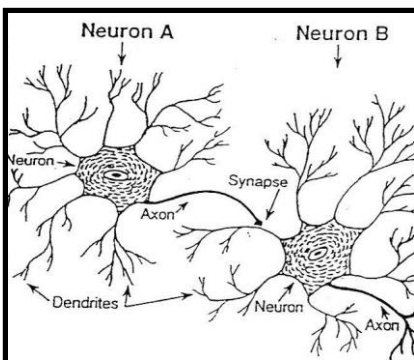


Children actively construct knowledge from experiences and dialog. Think of classrooms as language learning workshops or children's museums. Actively engage learners in deep reflection and authentic tasks—or simulations—using Total Emotional Body Response to Language (TEBRL). "Saying and doing" increases retention of new information by up to 90%. Take field trips or use the power of story, drama, and dialog to create a brain-friendly environment for learning.

5. We have at least eight distinct intelligences or "avenues for learning". Present challenging experiences that engage the child's multiple ways of integrating new information. Develop the capacity for reflection, self-motivation and

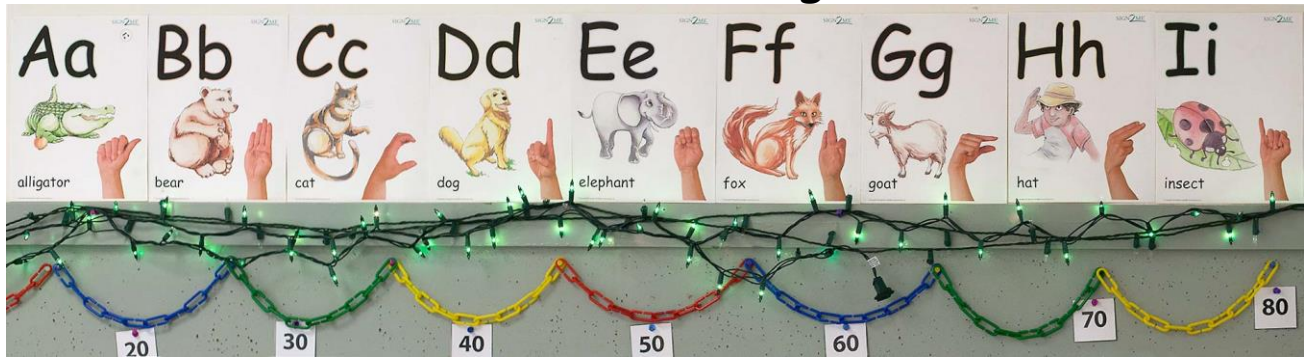
self-discipline. Recognizing multiple intelligences is respectful of our multi-ethnic classrooms and allows every child to build on success. See Howard Gardner's book *Multiple Intelligences: The Theory in Practice*, and *Dancing with Words* by Marilyn Daniels.

6. Enriched environments literally change the brain. There are no neutral learning environments. Intelligence is not static. You can lose brain cells in impoverished environments - dendrites shrivel up and die! In our enriched kindergarten environments dendrites and neurons grow in increasing density and complexity of connections. Read about Dr. Marian Diamond's work in Jane Healy's book, *Endangered Minds*.

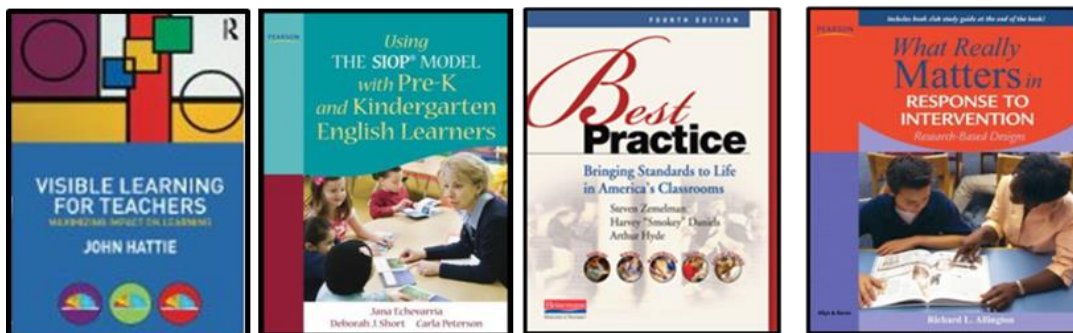


With special thanks to our colleague Pat Wolfe for her important books, *Brain Matters: Translating the Research to Classroom Practices*, ASCD, 2001 and *Building the Reading Brain*, PreK-3, Corwin Press, 2004. See also: *Teaching Struggling Readers: How to Use Brain-Based Research to Maximize Learning*, C.A. Lyons, Heinemann, 2003.

Analyzing New Kindergarten Literacy Adoptions in the Light of "Best Practices" for Mastering ABC/Phonics Skills



When considering a new literacy program to determine if it will improve student outcomes and creative motivation for learning, we recommend looking at the "Best Practices" research and perusing the action-research documentation, free video tutorials, and teacher support resources at [nellieedge.com/ABC Phonics](http://nellieedge.com/ABC%20Phonics).



Adopting A New Literacy Programs? Ask the Following Questions:

- Do teachers love it? Children love it? And parents love it?
- Was it developed and tested in real kindergarten classrooms?
- Is it multisensory and engaging: are children using all of their senses to create strong memory hooks?
- Does the program develop positive attitudes about school learning and profound literacy gains?
- Does it have a strong family literacy connection? Do parent enjoy reinforcing the strategies at home?
- Does it engage the whole child in art-infused learning consistent with the 2016 *Every Child Succeeds Act* (ECSA)?
- Is the program developmentally appropriate for diverse learners and consistent with how the young child's brain learns best? (The brain is a musical brain. The brain thrives on multisensory learning.)
- Does it differentiate learning? Is there enough challenge for the child who is already proficient with letters and sounds and support for the harder-to-accelerate learner? How does it meet the needs of Talented and Gifted (TAG) learners?
- Is the program easy to implement for volunteers?

- Is there quality, affordable ongoing online or district support? (No consumable workbooks!)
- Does it inspire feedback and dialog that **builds a "growth mindset"** for learning?
- Is there a logical and authentic **Common Core writing connection**?
- **Are voracious vocabulary learning experiences** naturally incorporated into the descriptive language children are hearing and repeating from their ABC Phonics book?
- **Is the learning experience authentic and worthy of children's time?**

We Need to Constantly Be Asking: What Is the Impact of Our Teaching?

If the current school literacy adoption fails to meet many of these criteria for excellence, consider beginning the year with the simple, proven techniques outlined in **Multisensory ABC and Phonics Immersion** for the first 20 days as a bridge into any literacy program: Children deserve joyful accelerated literacy! **Teachers: Share your high expectations and proven success stories** using Multisensory ABC and Phonics Immersion with literacy coaches, principal, and other literacy leaders. Peruse the FREE ABC Phonics Page at www.nellieedge.com for [additional support](#).

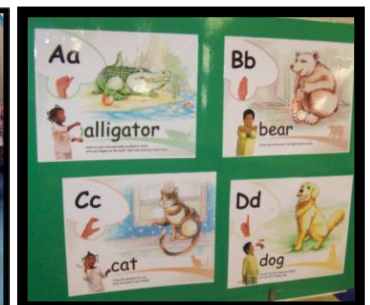
See documents on our ABC Page:

- [Parents as Partners: Why We Teach American Sign Language](#)
- [FAQ: ABC Phonics Sing, Sign, and Read! Program](#)
- [20 Days to 26 Letters and Sounds](#)



What Is Our Research Base for ABC Phonics: Sing, Sing, Sign, and Read!?

- *Visible Learning for Teachers: Maximizing Impact on Learning* by John Hattie. Routledge. Taylor and Francis Group, 2012.
- *Best Practice: Bringing Standards to Life in America's Classrooms* by Steven Zemelman, Harvey Daniels, and Arthur Hyde. Heinemann, 2012
- *Using the SIOP Model with Pre-K and Kindergarten English Language Learners* by Jana Echevarria, Deborah J. Short and Carla Peterson. Pearson, 2012.
- *What Really Matters in Response to Intervention* by Richard L. Allington. Pearson, 2008.
- *Kindergarten Writing and the Common Core: Joyful Pathways to Accelerated Literacy* by Nellie Edge, 2015.
- *Multisensory ABC and Phonics Immersion: Building the Reading Brain Teachers Power Guide*, 2016. Nellie Edge Online Seminar #1.
- *Mindset: The New Psychology of Success* by Carol Dewitt, Ballantine Books, 2007.
- *Dancing with Words: Signing for Hearing Children's Literacy* by Marilyn Daniels. Bergen & Garvey, 2001.



Practices That Make the Biggest Differences in Student Learning: A Synthesis of Over 30 Years of Educational Research

(Bold headings are from *What Works in Schools: Translating Research into Action* by Robert J. Marzano, ASCD, 2003)

- **Identifying similarities and differences** - Throughout the curriculum we are developing critical thinking skills. We encourage children to verbalize what they are seeing, doing, feeling and imagining. We often ask, "What do you notice about..." "Does that remind you of...?" "How is that similar to...?" "Do you see a pattern?" **The brain is a pattern-seeking device.** Talking, not listening, (about similarities and differences) develops new neural connections in the brain.
- **Summarizing and note-taking** - Talking increases retention of new information by 50%; talking and doing (writing in this case) up to 90%. Writing not only supports reading and allows children to practice their phonics skills; but note-taking and drawing mind maps sharpens children's thinking and helps them focus on what is most important. Summarizing books and meaningful studies engages the kinesthetic and linguistic intelligence.
- **Reinforcing effort and providing recognition** (without setting up competition) - This happens most powerfully within a joyful, non-competitive community of readers, writers and thinkers. Because we honor "multiple intelligences," all children have opportunities to be "experts" and receive recognition; thus building internal motivation, personal confidence and the joy of being valued. Children often perform language for each other. A child might present their study as a book for the entire class to see and comment on. **Classmates honor each other's efforts and are taught to give each other positive feedback** and ask thoughtful questions.
- **Homework** (meaningful homework) - "Parents as partners" in children's study projects and literacy rehearsal activities multiply our teaching effectiveness. Memorizing and reciting Mother Goose rhymes, ABC and phonics immersion activities, nightly reading and science exploration build a long-term family commitment to literacy. We tell parents - **"Dance and sing, talk and explore nature, read and write with your child every day and every night."** We encourage a summer of journaling and trips to the library and - time for serendipity. (We do not send home meaningless dittoed sheets - our goal is joyful family engagement.)
- **Practice** - The best classrooms are language-learning workshops where children **practice using language** in all its modalities to learn about their world and communicate meaning. Children as authors and illustrators practice their craft. The Neurological Impress Method of oral language read aloud practice provides practice in fluency. Learning experiences are differentiated so all children can build on success. When learning is personally engaging, there is intrinsic motivation to practice new skills over and over again.

Nonlinguistic representations - The arts and sign language are translators of meaning. Multisensory teaching provides multiple hooks to long-term memory. Emotional engagement is the key to all-powerful learning. **We sing, sign, and mime; dramatize, dance, and draw.** We talk about experiences, build models and move the body. We activate the emotions and personalize the learning experience! The brain is a "musical brain" - it is uniquely wired to allow large bodies

of information to be effortlessly stored into one memory space through a song. Children can learn the *ABC Phonics: Sing, Sign, and Read!* much easier than learning letters and sounds in isolation.

- **Cooperative learning** - The brain is a social brain (Vygotsky). It is within an emotionally safe social context that learning can be scaffolded, and children can take risks and discover that we are all teachers and learners together. **We encourage children to talk and collaborate.** Emotional intelligence is nurtured when children work together. Literacy - and life skills are both practiced within a cooperative learning community.
- **Setting goals and providing feedback** - This assumes meaning-centered learning where the child makes choices and assumes responsibility. **Student-led parent conferences** give children ownership of learning. Thoughtful encouragement and feedback builds self-discipline and a strong work ethic. When a child sets personal goals, the intrinsic motivation accelerates learning.
- **Activating prior knowledge** - Making bridges between the known and unknown is a key principal of learning theory. It requires a learning community that values collaboration, dialog and the scientific process. We teach children to access their schema and use the KWL strategy. **"What do we know about caterpillars?" "What do we wonder about caterpillars?"** Wise, caring teachers always build a meaning base for learning.

"Brain reorganization takes place only when the animal pays attention to the sensory input and to the task. Only when the animal is trying to learn or form a memory does it do so. **Active engagement in a task reorganizes the brain. Passive stimulation does not.**" - John Brewer

"Only those aspects of experiences that are targets of elaborative encoding processes have a high likelihood of being remembered." - Daniel Schacter from **Searching for Memory: The Brain, the Mind, and the Past**

"The brain does not know the difference between vividly imagined experiences and the real thing. Imagining that you are working through an exercise strengthens muscles. The placebo effect actually changes the physical structure of the brain. Belief is a powerful force in learning. **Children can begin to develop the neural pathways and the belief in themselves as a successful reader long before they are independent readers.** We teach concepts about how print works while the eyes are learning to sweep across the page. Repeated experiences in memory reading and Neurological Impress reading build oral language fluency and develop a love of reading. This becomes an important bridge to fluent independent reading for many children. **Because emotion and cognition are so tightly intertwined in the brain, the learning to read experience must be linked with joy, success and the belief 'I can read!'**"
Ongoing thoughts and action-research - Nellie Edge

Neuroscience Research for Further Study

A Celebration of Neurons: An Educator's Guide to the Human Brain, by Robert Sylvester. Joseph Henry Press, 1995.

Brain Matters: Translating the Research to Classroom Practice, by Pat Wolfe. ASCD, 2001.

Building the Reading Brain, by Pat Wolfe and Pam Nevills. Corwin Press, 2004.

Developmental Cognitive Neuroscience: Lab of Adele Diamond by the University of British Columbia, www.devcogneuro.com.

Friday's Footprint: How Society Shapes the Human Mind, by Leslie Brothers, M.D. Oxford University Press, 2001.

The Emotional Brain: The Mysterious Underpinnings of Emotional Life, by Joseph Ledoux. Simon and Schuster, 1998.

The Modular Brain: How New Discoveries in Neuroscience Are Answering Age-Old Questions About Memory, Free Will, Consciousness, and Personal Identity, by Richard M. Restak, M.D. Scribner's, 1995.

Teaching Struggling Readers: How to Use Brain-Based Research to Maximize Learning, by C.A. Lyons. Pearson Education Canada, 2003.

The Secret Life of the Brain, Dr. Richard M. Restak. Joseph Henry Press, 2001.

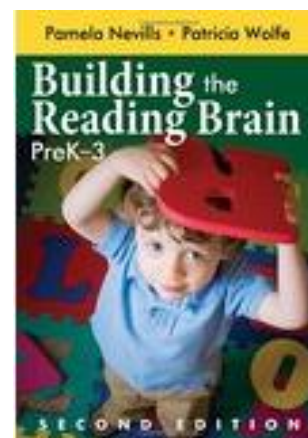
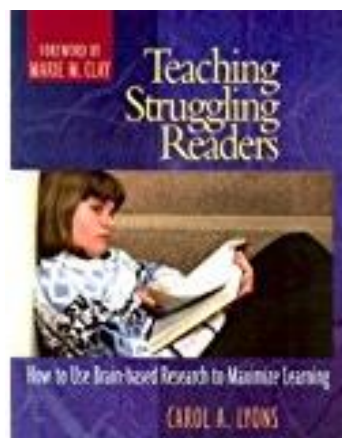
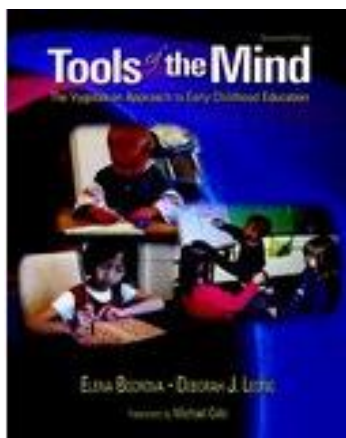
Free Newsletters: "Brain Work" and "The Brain in the News," rtalley@dana.org or fax 202-737-9204 or phone 202-737-9200.

Article by Pat Wolfe, "Healthy Brains for Health Educators," www.patwolfe.com/whatsnew.htm.

The Secret Life of the Brain series is available on PBS. See www.pbs.org/wnet/brain.

"The Music Instinct: Science and Song" DVD, PBS, 2009.

Tools of the Mind: The Vygotskian Approach to Early Childhood Education (2nd edition) by Elena Bodrova and Deborah J. Leong, Pearson, 2006.



**Take advantage of how the young child's brain learns best:
sing, sign, and read!**

It is "Developmentally Appropriate" to Have High Expectations for Our Kindergartners: First Create a Joyful Learning Community



We always ask:

"How am I developing attitudes, behaviors and the habits of mind needed for children to do well in school - and in life?"

"Is this activity meaningful, multisensory and memorable?"

"How am I developing a love of learning and positive social-emotional skills?"

"We need to grapple long and hard with the concept of 'development,' and consider how learning (and teaching) may enhance and encourage development. We need to recognize that active teaching and active learning go hand in hand." - Donald Graves

- **"Developmentally appropriate" practices somehow have been misinterpreted to mean we just wait for a child to develop skills, interests and abilities.** For some of our hardest-to-reach children, this is a great disservice. I wonder how our limiting beliefs might limit the richness of what we offer children? We know how to skillfully scaffold learning so all children can build on success. We understand the power of building a joyful learning community, the social nature of learning and the roles that motivation and parent involvement play in learning. Kindergartners love science explorations. They love to draw and write - and sing and sign. An engaging writing-to-read curriculum teaches reading by taking advantage of how the brain learns best. Workbook sheets and one-size-fits-all curriculum are not **"developmentally appropriate" experiences for young children - active, meaningful engagement in science, the arts and literacy is!**
- Some of us were taught that we would squelch the child's creativity if we provided guidance in teaching them to draw. Yet **experiences learned from the Reggio Emilia's Preschools of Italy have vastly expanded our vision of how the capable young child is to think, plan, draw and create through the many languages of childhood. We can - and must - reach for the stars with our children's minds and skillfully scaffold higher-level learning experiences.**
- I never realized that **young children could be such "voracious vocabulary learners"** until I watched my friend Jan with her 3-year-old son Roger playing the **"antonym game"** (she said "inhale" - he said "exhale"; she said "male" - he said "female"). Later they played the **"homonym game"** and **"synonym game"**. I am continually amazed and delighted by the incredible vocabulary children are capable of developing if they are around adults who have a passion for playing with wonderful words and rich language patterns. Children in such environments have verbalized that they want to be **paleontologists** or **entomologists** when they grow up!
- **Children are capable of metacognition** - "thinking about our thinking" and applying comprehension strategies as they discuss quality literature. Through thoughtful teaching and innovative activities with fiction and nonfiction children can develop higher-level thinking and questioning skills in kindergarten.

Children deserve our highest expectations. Becky Leber, a mentor kindergarten teacher who celebrates childhood, explained, ***"I raised my expectations and my students far surpassed them."***

As we raise the English language arts and literacy standards, we must do it in such a way that we are also raising our expectations for children's social-emotional development and love of learning. Children deserve to develop attitudes and habits of mind that will support them in being successful in school - and in life.



The SMILE Approach to Accelerated Literacy: Take Advantage of How the Brain Learns Best

The **SMILE** approach to literacy is **systematic, multisensory and engaging** for young learners. It embraces and supports diverse learning styles and the wide range of language and literacy needs seen in most early childhood classrooms. This accelerated learning model is especially powerful for our high-needs children. In classrooms that incorporate **SMILE** principles, **the entire class enjoys literacy experiences with high-quality literature, fascinating nonfiction, songs, poems, rhymes and dances.** This invites them to think, have fun and feel a sense of belonging while enhancing oral language skills and physical coordination. **Then we build on success through differentiated instruction that is active, motivating and appropriate for individual learners while fostering a love of language.** Our comprehensive instructional model acknowledges the social-emotional aspects of learning and children's inherent love of nature. We celebrate the power of music, movement, sign language and the educational arts as translators of meaning. Our teaching makes us smile and it makes children smile. It also delights the hearts of parents as they see their children's enthusiasm for learning. **Brain-friendly literacy™ always evokes a SMILE and thus our acronym:**

Systematic, scaffolded.

Meaningful, multisensory, memorable, motivating.

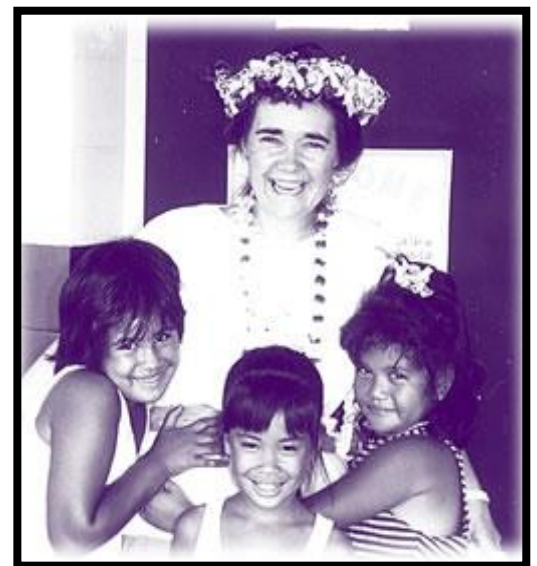
Integrated (with the arts, science and children's lives), intentional.

Literacy (literature and language with love).

Experiences. Engaging ones!

The **SMILE** instructional model begins with the assumption that **teachers' first concern is in creating a joyful community of learners and bonding with each child and their families.** We recognize the vital role of the emotions and parent collaboration in learning. Our teaching colleagues have proved that once we create a caring community and an engaging curriculum with parents as partners, the levels of learning soar for all children. The intrinsic reward of this type of meaning-centered learning is high motivation for children - and their teachers.

I was honored when the **term SMILE** was first used to describe our **Nellie Edge Seminars** approach to language and literacy instruction by the **Kapa'a Elementary School** primary teachers (on Kauai). After receiving training, they used our accelerated literacy model to create a K-2 "school within a school" in 1995, which they called **SMILE (School for Meaningful Integrated Language Experiences)**. Our expanded acronym is still true to the heart of that original title. Remembering my visit to these engaging Kauai classrooms where children sang, signed, and performed language still brings a **SMILE** and warm aloha.



The SMILE Approach to Joyful and Accelerated Literacy: Principles and Practices That Celebrate Language and Honor Childhood

We know how to reach Common Core Standards in kindergarten—a CHILD'S GARDEN!



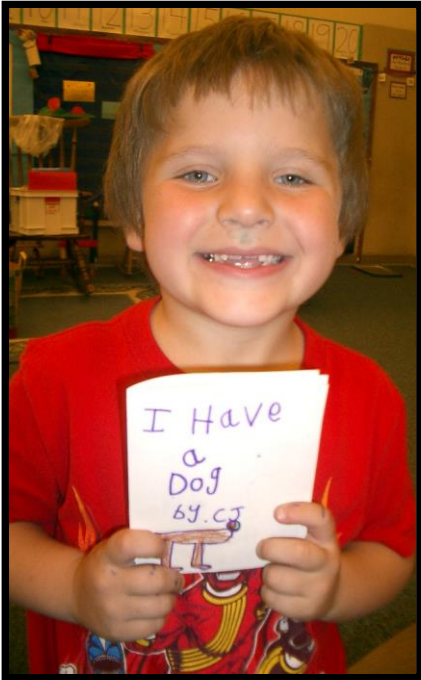
We create **beautiful, organized, language-intensive environments** that are **emotionally safe** and noncompetitive. We have **high expectations**. We **weave the educational arts** into all areas of curriculum. Our children develop friendships. They learn to make choices and are involved in **meaningful projects**. As educators we are reflective, continuously learning how to provide the scaffolding needed for every child to build on success, every day. We teach systematically and intuitively. **We take advantage of how the brain learns best** - and we save time for serendipity.

These 14 principles, within a loving, disciplined and joyful atmosphere, provide a foundation and framework for excellence:

- **Bond with students and create a joyful community** where children care and share and learn together. Our language build's trust, nurtures self-esteem and develops responsibility.
- **Kindergarten is for language:** Phonemic awareness is "language play - every day, books and songs - all day long." The biggest single kindergarten predictors of phonemic awareness and later reading success are still oral language development. We can be systematic in our teaching - and playful! We know that the body needs to move, the human heart needs to sing and the brain was created to learn through music.
- **Engage "the heart of the kindergarten child":** Create memorable rituals, traditions and celebrations of language that enhance learning. Weaving joy, personal meaning and depth into the learning community creates a love of learning.
- **Use multisensory ABC and phonics immersion strategies:** Children deserve emotionally engaging instruction that is also explicit, systematic and differentiated for their needs. Accelerate mastery of the alphabetic principal through singing, signing and reading one consistent ABC Phonics song several times a day with parent collaboration. Our action-research team demonstrated phenomenal results with these practices.
- **Involve parents as partners:** Multiply your teaching effectiveness. This is not an option. All parents want their children to be successful in school. Parents and teachers jointly share responsibility for educating their children. There will be intergenerational benefits.



Joyful Accelerated Literacy Makes Children SMILE



- **Teach concepts about print, handwriting, high-frequency words, and reading – their way:** Use auditory spelling strategies, name tickets, word matching, sentence building, singing, signing, “stamp and read books” and “kid writing.” Create literacy work centers where children use reading and writing for real purposes. Skillfully transition from “magical memory reading” to guided reading. Use the Neurological Impress Method (NIM) to build fluent independent reading. Differentiate instruction for diverse learners.
- **Build a systematic and engaging “writing to read” curriculum:** All kindergartners love to draw, write, and make books. Daily “kid writing” teaches reading. It allows children to practice phonics in action. Drawing and writing are reciprocal thinking and symbol systems that honor the child’s voice and vision.
- **Develop comprehension strategies and thinking skills** with quality fiction and nonfiction and meaning-centered activities throughout the curriculum.

Engage children in dialog and develop metacognition (thinking about our thinking).

- **Awaken children’s love of nature:** Connect children with the natural world outside the classroom. Create a classroom of bird watchers, stargazers, rock collectors, tree experts, and animal and plant enthusiasts. Use children’s fascination with nature and their social connections to create a compelling reason to read and write. **Children may decide “I’m gonna be a paleontologist or ornithologist when I grow up!”** (And always there is poetry and song...)
- **Honor the vital role of play in children’s cognitive and social-emotional development.** Put learning in the children’s hands. Give children ownership, responsibility and choices in their learning. Make cooperative learning come alive through dramatic play, block building, group field trips and hands-on experiences. Challenge children to set high personal goals, empower them with “I can’s.” We are developing literacy - and life skills.



- **Build voracious vocabulary learning habits** explicitly, systematically, mindfully and playfully throughout the curriculum. **Create a talking classroom.** Reinforce basic language concepts and expand children’s responses to who, what, where, when, how and why questions. Introduce powerful vocabulary through rich project learning and poetry. **Watch children become collectors of wonderful new words as they play at being architects and engineers.**

And Teachers SMILE and Parents SMILE...



- **Teach in an emotionally engaging way and celebrate the educational arts as translators of meaning:** Integrate music, drama, art, movement, dance and sign language (and love, joy, laughter, and enthusiasm) throughout the curriculum in everything you do. Bring your passions into the classroom. **Love books, love learning, and love the children.** They remember what we love. Children see a reflection of who they are and who they can become through our eyes.

- **Authentic assessment empowers children to take responsibility for their learning and pride in their accomplishments.** Student-led parent conferences help children set personal goals, evaluate progress and celebrate their accomplishments. We build intrinsic motivation for children to do their best.



- **Create a beautiful learning environment:** Involve the children in creating an environment that is warm, comfortable and home-like. Create order and harmony and give children responsibilities for maintaining the environment. Classrooms need live plants, flowers, good lighting, art prints and photos of the children engaged in meaningful studies and playful explorations. Let the walls of your classroom reflect the lives of the children. Celebrate childhood and celebrate learning.



The S.M.I.L.E. approach to accelerated literacy is joyful, rigorous, and developmentally appropriate. We make heart connections and take advantage of how the young child's brain learns best. (See  video clips of joyful accelerated literacy at www.nellieedge.com.)

(Systematic [scaffolded], Meaningful [multisensory], and Integrated Literacy Experiences)



What learning experiences make you smile? How were you taught in the best of your school memories? How will you build more SMILES into your classroom?

(This symbol is for reflection: With our heart we know how to apply "best practices" research while we reach for the stars with the lives of our children.)