 S P E E C H I N C

Neuroscience applied to the classics.

By Katie Pengilly MA,CCC,SLP

Educators tell us that there is no more important activity for preparing our children for success as a reader than reading aloud together. And the earlier the better. Research reveals that the benefits of shared reading include: facilitating language rich exposure and vocabulary development, fostering the development of listening skills, boosting comprehension, and establishing essential foundational literacy skills which will be critical for reading and spelling eventually.

Not to mention the fact that story time is a bonding family ritual that can bring closeness, joy and momentary peace to hectic family life.

Many children love books, and all related activities, from the start. However, throughout the past 3 decades, I have had many parents of toddlers in my office concerned about the child who is not interested in books, despite parents’ repeated efforts. And often these parents are avid readers themselves, which adds to their dismay.

My suggestion is this: let’s apply modern principles of neuroscience to maximize the age old story time experience.

How do we do this? Recent research points to certain neurotransmitters (chemical messengers in the brain) which are particularly involved in learning. Increasing production of these brain chemicals will improve the story time experience. Let’s consider 2 of these, and how we can maximize them during book reading.

Seratonin is the mood regulator. Taking the time to set the mood will increase the serotonin level in the brain, thereby increasing engagement in the activity which follows. Specifically, increased serotonin enhances memory and learning speed. Consider setting the mood by playing some music before jumping in. We may need to focus on increasing the comforting, ritual aspect of story time. Think about a special, comfortable space, (diming lights, special reading spot, staying up a few minutes later than usual bedtime), and asthetically pleasing illustrations. Creating opportunities for back and forth interactions such as line completion (rather than passively listening) can boost the mood by promoting the relationship/emotional and shared elements of the activity.

Increased dopamine levels in the brain is related to increased learning and retention. Dopamine is increased when we find an activity rewarding or pleasurable. To increase the rewarding aspect of book reading, praise your toddler (“I like the way you looked at the pictures/listened/pointed to the pictures/closed the book”, etc). Encouraging and celebrating attempts is your first hurdle in getting a child engaged in the learning activity you have planned.

Eventually learning something new is the reward. Choosing high interest books also boosts the pleasure and reward factors. Novelty has also been shown to increase dopamine. Maybe read

in the dark with a flashlight once in a while? Maybe sing, whisper or shout certain words? Make up a surprise twist or ending. Read expressively, read slowly, read quickly. Change character voices.

So, for the child who does not relish book time, lets boost the mood as well as the positive feedback. I will follow up in April to look at 2 other important neurotransmitters, and how we can maximize their production to enhance story time in other ways.

*Katie Pengilly is a Speech and Language Pathologist, and the owner of SPEECH Inc., a pediatric private practice specializing in speech, language, reading and writing. She can be reached at kathryn.pengilly@speechinc.com. More information can be found at www.speechinc.com.*