In October 2003, only 27 percent of the students at Greenwood Elementary School passed the reading section of the Ohio Achievement Test. Four years later, 74 percent of students taking the test passed, and the school met the adequate yearly progress requirements for all groups for the first time. The key to this turnabout was laying a solid foundation for reading proficiency in the primary grades.

At Greenwood, an urban K-6 school in Toledo, Ohio, the majority of students came from highly mobile, economically disadvantaged families. Many of these children had never been to preschool, so Greenwood was their first experience with formal education. Also, those children did not have much support at home.

From 2003 onward, our district in general and Greenwood in particular developed a practice of adopting a variety of measures to ensure that all students had the proper foundation for learning in the classroom and in high-stakes testing.

Rewiring Children’s Brains
Educators have always known that children start school at varying degrees of readiness, but decades of research enable us to understand more about what a student needs to succeed in school. Armed with this knowledge, it is now possible to go beyond supplemental, standards-based approaches and actually “rewire” struggling readers’ brains for learning and literacy.

Young children typically acquire their foundation for language learning through familial interaction. In fact, psychologists Hart and Risley (1995) found that the number of words per hour that a parent speaks to their toddler “is strongly related to the child’s rate of vocabulary growth, vocabulary use at age three and general accomplishments measured in IQ score.” However, they also found that social and economic factors influence the degree of this early language experience, and that children from families at lower socioeconomic levels tend to be exposed to 30 million fewer words than their higher socioeconomic counterparts by the time they enter school.

Without sufficient exposure to spoken language, students entering school fail to fully understand that words are made up of individual sounds and that letters represent these sounds. Without that understanding, children cannot map the sounds they hear to letters and text. Consequently, their brains are not trained or wired for the advanced textbook reading and language requirements of later grades, and they usually fail to catch up with their better-prepared peers. In addition, the failures experienced by these struggling readers are likely to sap their confidence and motivation, which only worsens their situation.

The realization that many of our students were missing an important step in their cognitive development concerned me. We were using digital courseware that tackled reading readiness by focusing on skills like letter identification or comprehension, but the main response it evoked from Greenwood students was boredom. It was obvious that our students needed assistance not only in traditional areas but also in terms of enhancing their neural processing in order to build the cognitive skills of attention, memory, processing and sequencing.

Implementing Changes
In the fall of 2003, we used some of our Title I funds to introduce Fast ForWord Language and Fast ForWord to Reading software into the curriculum. I was sensitive to teachers’ feelings during the first phase of implementation. They had seen other, highly touted instructional software brought in, but to no avail. Some of them greeted the news of the new solution with a weary, “Oh, another one.”

To turn this attitude around, we started with classes whose teachers were willing to try out the software. In these classes, we used previous test scores to target those students who were at risk of not passing high-stakes tests like the Ohio Achievement Test, and each day we would either pull them out of class or arrange for them to go to our mobile computer lab before or after school. We also used the software during summer school.

The gradual approach worked. The participating students showed measurable improvement in their reading ability, and by the following year we had the teacher buy-in we needed to
put all our students from kindergarten through third grade on the software for at least 10 weeks.

Since the user protocols for the software required that computer sessions be at least 50 minutes, I carved out daily 60-minute sessions as a regular part of the schedule. Students had their first sessions in mobile computer labs with our proficiency tutors, but in 2005 we added a computer lab with 30 computers, plus extra tables for the former mobile lab equipment. In that way, we could serve two classes (about 50 students) at a time, with two proficiency teachers joining the classroom teachers.

For motivation, we initiated a reward system in which the students earned plastic coins for good behavior or for gaining a certain number of reading levels. They could use the coins to buy trinkets from the school store.

Adding Literacy Groups

We were not content to simply sit students in front of computer screens to resolve the reading gap. In 2005, we introduced literacy groups as a supplemental approach to regular classroom reading instruction. The literacy groups provided small-group instruction and practice that allowed our teachers to give our younger students critical interpersonal support as they strove to develop reading proficiency.

Since literacy groups are designed to address the needs of specific subgroups, educators have plenty of flexibility in the activities they employ. However, there are certain common features that should be present whenever literacy groups are implemented:

- Quality teaching delivered daily by highly trained instructors;
- Literacy activities that provide students with the skills and motivation to become competent and lifelong learners;
- Continual monitoring of students’ progress through observations of their performance during literacy activities; and
- Literature and other materials developmentally appropriate for the students’ level of reading ability.

At Greenwood, literacy group instruction was led by two proficiency tutors, two reading teachers, and the classroom teacher. They first used a one-minute fluency measure, the Dynamic Indicators of Basic Early Literacy Skills (DIBELS), to sort first graders into five groups, according to their reading abilities.

Next, the groups worked on a specific skill, such as the ability to distinguish between letters, words, and sentences; fluid and automatic text decoding; or visualizing information within the text. The teachers worked with the same kids every day for 30 minutes, and every Friday the instructors met to review the students’ progress and plan activities for the following week.

In 2006, we expanded the literacy group program to provide reading support for low-ability second-grade students via the same small-group format. Our goal for both first and second graders was to develop the language competencies that would enable them to become independent readers and to effectively prepare them for the high-stakes testing that would begin at grade 3.

The Proof Is in the Results

The Ohio Performance Index provides an overall indication of how students in a school or district perform on the state tests, and Greenwood’s score rose steadily from 79.2 out of 120 points in 2002-2003 to 93.3 for 2006-2007. But test scores were only one aspect of the remarkable changes resulting from the combination of reading intervention software and literacy groups. The most gratifying result was that children who previously would not touch a book were now taking books home. I encouraged their enthusiasm by partnering with the local Rotary Club and a venture capitalist grant to set up a library for after-school and summer use in an apartment building where many students lived.

Teachers also saw improvement in other subject areas, such as math, as well as student behavior. In the computer lab, students had to wear earphones to hear the software’s acoustically modified speech, and this eliminated opportunities for chatting or other distractions. Even when the full contingent of 50 students was in the lab, the place was incredibly quiet. Another reason for improved discipline, even outside the computer lab, was that the software programs and literacy groups were allowing students to experience higher levels of self-esteem and lower levels of frustration.

Building on Success

Before I moved to another elementary school in 2007, my Greenwood staff and I altered the way we used the reading software, switching from intervention to prevention in order to focus our attention on kindergarteners and first and second graders. We also added a number of innovations we thought could help prepare our students for future success. For example, in 2006 we volunteered to pilot a new K-6 language arts series from Macmillan/McGraw. But we never lost sight of our end goal: creating students confident of their reading and academic prowess, and capable of staying on track in the face of any challenges that may come their way.

Reference


William Magginis, former principal of Greenwood Elementary School, is principal of Monac Elementary School in Toledo, Ohio. His e-mail address is wmaggini@washloc.k12.oh.us.