

MIND Research Institute

**MATH SUCCESS**

*for*

**ENGLISH**  
Language Learners

**The Rise of ELLs**

**4.9 Million**  
In the 2013-14 school year, more than 4.9 million English language learners were enrolled in U.S. public schools — representing just over 10% of the total student population.

**1-4**  
By 2025, it's predicted that nearly 1 out of every 4 public school students will be an English language learner.

**4x**  
ELLs are four times as likely to drop out of high school than native English speakers.

**The Math Achievement Gap**

Since 1996, the average math scores for ELL 4th and 8th grade students has been consistently lower than their non-ELL peers.

**1**  
Math achievement is the #1 predictor of school success. More than reading skills, attendance or behavior.

Helping break the barriers to higher math achievement for ELLs creates a pathway for overall school success.

**MAXIMIZING THE POWER OF TECHNOLOGY**

*for*

**Students**

**LOW READING ABILITIES**  
For mathematics instruction at the elementary level, the most frequently cited problem by teachers was low student reading abilities.

Language-heavy math instruction creates barriers for ELLs.

For English language learners, instructional technology that addresses language barriers and helps to create access to conceptual understanding and rigorous mathematical problem solving.

**Features of Effective Math Technology for ELLs:**

- Presents math problems visually
- Shows self-directed exploration
- Offers customized learning paths
- Provides data to allow to monitor their own progress
- Provides immediate feedback

Learn More:  
<http://www.mindresearch.org/teaching-math-with-technology>

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**Teachers**

**TEACHER MATH ANXIETY**  
78 percent of elementary teachers report experiencing some level of math anxiety.

**STAFF RETENTION**  
Low-income schools — consistently with high ELL populations — lose half their staff every 3 years.

Increased levels of instructional support and training provided to new teachers has been shown to decrease their likelihood of leaving after the first year.

Math technology should help teachers in the challenging task of providing quality content, and boost learning paths, assisting teachers in meeting the individual needs of all of their students, regardless of language or achievement level.

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**Families**

**71% SPEAK SPANISH AT HOME**  
Spanish is the most common first or home language spoken by 71% of ELLs. The other 100 families of the languages include:

Chinese 1%	Korean 1%
Vietnamese 2%	Russian 1%
French/Spanish/Creole 2%	Arabic 1%
African 2%	German 1%
Polish/Japanese 3%	Hebrew 1%

**PARENTS WHO LACKED FORMAL EDUCATION**  
ELLs who also were likely to have parents with limited formal education. 88% of parents with no or one year of higher education and a parent with less than a high school education.

**NO INTEREST**  
20% of families earning less than \$10K do not show interest in their child's home.

**ONLY 29% ATTEND PARENT MEETINGS**  
Only 29% of parents with less than a high school education attend a parent meeting.

**TIME OUTSIDE OF SCHOOL**  
It is estimated that 70% of students' waking hours are spent outside of school. A strong home-school connection is crucial for student success.

Ensuring ELL math success means providing equal access to consistent growth at home. Areas of focus:

- Parent Engagement**  
Parent-teacher communication  
Parent-teacher communication  
Tracking student progress
- Learning at Home**  
Access to Home  
Access to Home  
Access to Home

[www.mindresearch.org/parent/](http://www.mindresearch.org/parent/)

To Find Out More About Supporting ELL Math Education, Contact

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