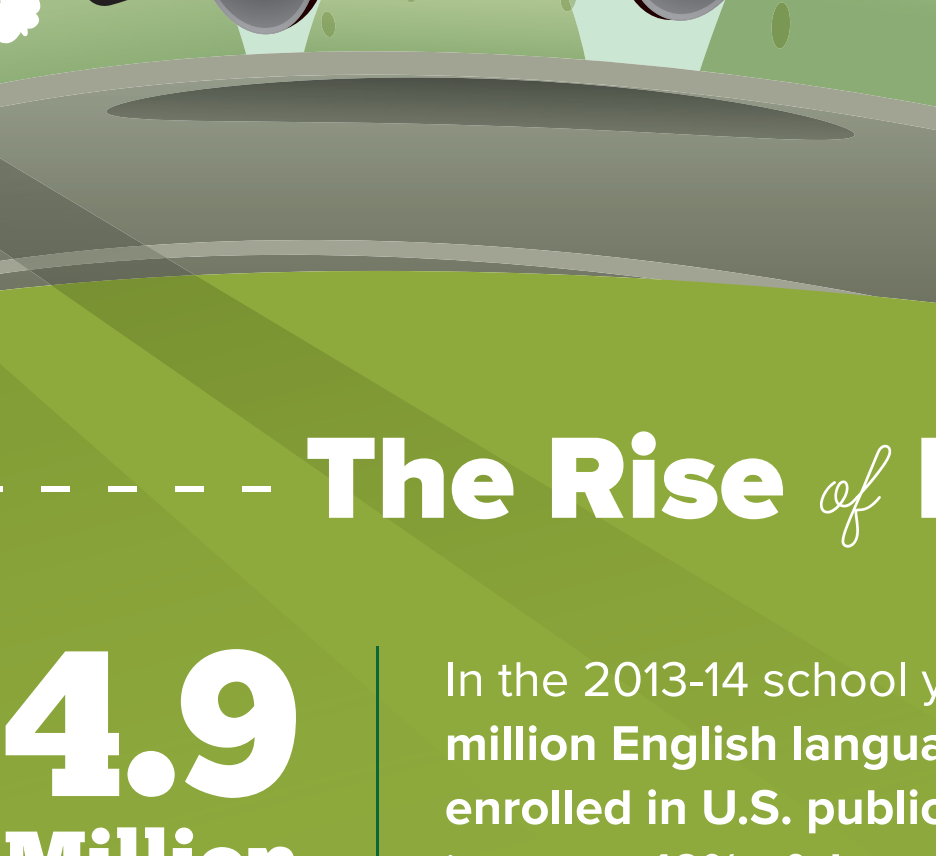


# MATH SUCCESS

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 out of 4**

By 2025, it is 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**

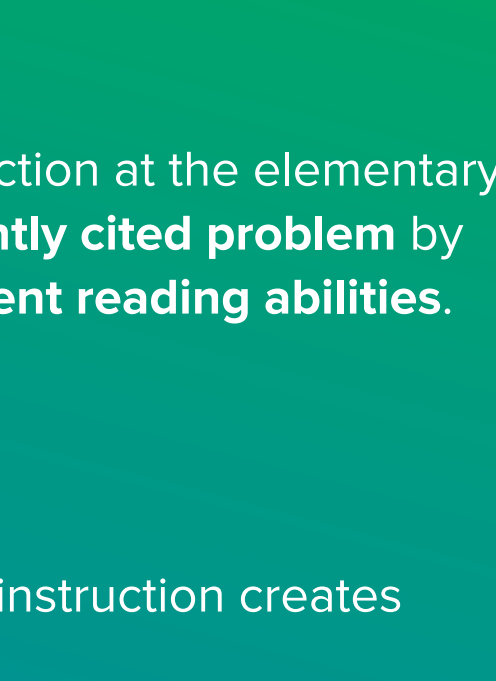
**Math achievement is the #1 predictor of school success. More than reading skills, attention or behavior.**

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



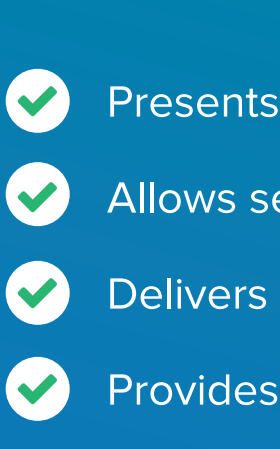
## MAXIMIZING THE POWER of TECHNOLOGY

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.

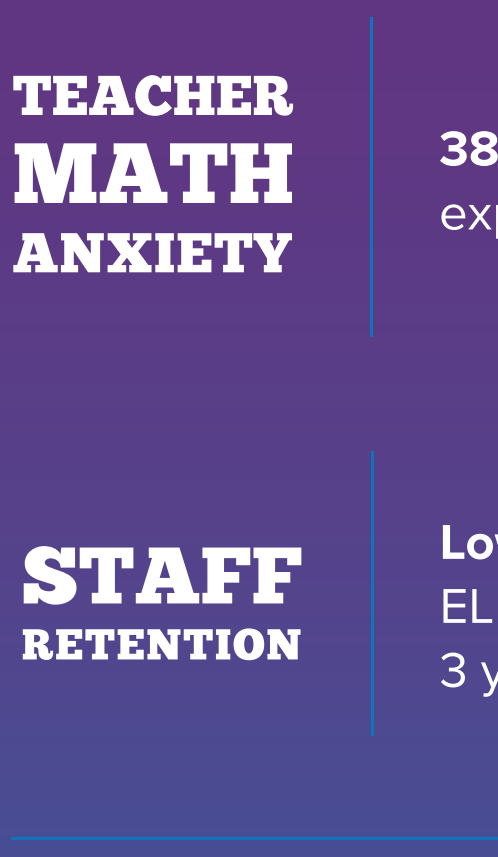
For English language learners, instructional technology that removes the language barrier can play a critical role in providing access to conceptual understanding and rigorous mathematical problem solving.

### Features of Effective Math Technology for ELLs:

- ✓ Presents math problems visually
- ✓ Allows self-directed exploration
- ✓ Delivers scaffolded mastery-based learning
- ✓ Provides data for players to monitor their own progress
- ✓ Real-time informative feedback

Learn More:

<http://www.teachhub.com/teaching-math-without-words>



for  
**Teachers**

**TEACHER MATH ANXIETY**

**38 percent of elementary teachers report experiencing some kind of math anxiety.**

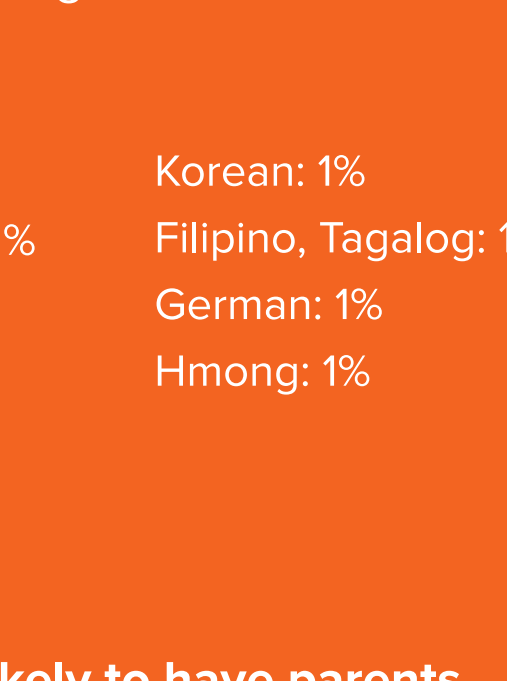
**STAFF RETENTION**

**Low-income schools** — commonly 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 **carefully crafted, self-paced learning paths, assisting teachers in meeting the individual needs of all of their students, regardless of language or achievement level.**

for  
**Families**



**71% SPEAK SPANISH**

**Spanish is the most common first or home language, spoken by 71% of ELLs.** The other top home or first languages include:

Chinese: 4%  
Vietnamese: 3%  
French/Haitian Creole: 2%  
Arabic: 2%  
Yiddish, Jewish: 1%

Korean: 1%  
Filipino, Tagalog: 1%  
German: 1%  
Hmong: 1%

**PARENTS With Limited FORMAL EDUCATION**

**ELLs are also more likely to have parents with limited formal education:** 48% in grades preK–5 and 35% in the higher grades had a parent with less than a high school education.

**NO INTERNET**

31% of families earning less than \$50K **do not have internet access at home.**

**ONLY 29% OWN COMPUTERS**

**Only 29% of people with less than a high school education own a computer.**

**TIME OUTSIDE of School**

It is estimated that 70% of students' waking hours are spent outside of school. A strong home-to-school connection is needed for student success.

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



### Parent Engagement

Parent/student communication  
Parent/teacher communication  
Tracking student progress



### Learning at Home

Access to Devices  
Access to Internet  
Homework time

Sources: [mindresearch.org/blog/infographic-ELL-math-success](http://mindresearch.org/blog/infographic-ELL-math-success)



To Find Out More About Supporting ELL Math Education, Contact: