

Let's Talk About Math

Tips for Preschool Teachers and Providers to Support Dual Language Learners in Math

In our new report, *Language Counts: Supporting Early Math Development for Dual Language Learners*, by Bellwether Education Partners, we talk about the importance of early math for a key group of students: dual language learners (DLLs). As an early care provider, you know that giving all children a solid foundation in early math is critical to their future success. In fact, research shows that children's early math skills are an even better forecast of their future academic success than reading skills.

There are many cognitive benefits to speaking multiple languages, which can be helpful when learning math. However, it is also important to consider specific ways in which DLLs may need support with developing math understanding and language in an English-dominant setting. Particularly if you are a provider who mainly speaks English, below are some tips from our report to help ensure that the DLLs in your care develop the critical early math skills they need to succeed.

Who Are Dual Language Learners (DLLs)?

Dual language learners are young children between the ages of 0 and 8 with at least one parent who speaks a language other than English at home. DLLs currently make up nearly one-third of all young children ages 0 to 8 in the country.¹ They represent more than 350 language groups, many cultural groups, and all socioeconomic levels. Over two-thirds of DLLs nationally live in homes where the primary language is Spanish. Arabic, Vietnamese, Tagalog, and Chinese languages (including Cantonese and Mandarin) constitute the rest of the top five home languages spoken by parents of DLLs nationally. Research shows there are many cognitive benefits to speaking multiple languages.

HOW TO SUPPORT DLLs' MATH LEARNING IN EARLY CARE SETTINGS

In early childhood settings, it is important for educators to use instructional strategies to bridge language differences and ensure that DLLs can access the curriculum and show their learning.

1 **Create a language-rich environment where children can use math talk in context.** Young children learn best through using math language in the context of hands-on activities, and not as isolated vocabulary. Encourage DLLs to convey their thinking using storytelling (for example, using a story about going to the supermarket as the setting for a math discussion) and multimodal representations (such as drawing, symbols, and physical gestures).

2 **Use play to help DLLs practice math skills and show what they know.** Play that supports early math can include anything from building with blocks to writing prices on a restaurant menu. As much as possible, set up play scenarios that are culturally relevant and reflect the everyday experiences of DLLs.

Now when I do my activities or play outside, I implement the material that we are working on for the month. For example, this July we worked on geometric shapes, so we searched for shapes around the house — for example, plates are circles, a door frame is a rectangle, a cupcake is a pentagon, and a cup is a cylinder.

Jacqueline, Seattle child care provider interviewed for *Language Counts*

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1 Park, O'Toole, and Katsiaficas, "Dual Language Learners: A National Demographic and Policy Profile," <https://www.migrationpolicy.org/research/dual-language-learners-national-demographic-and-policy-profile>

HOW TO SUPPORT DLLs' MATH LEARNING IN EARLY CARE SETTINGS, *continued*

3 **Treat the child's home culture and emerging bilingualism as assets and resources, rather than as deficits.** Take time to talk with families to identify the ways in which math knowledge and language are already used in the home. For example, if a family is familiar with the nursing field, you can create math lessons related to nursing.

4 **Translate materials into multiple languages.** Taking an asset-based approach includes offering materials in multiple languages whenever possible, to signal that you value students' home languages.



HOW TO ENGAGE FAMILIES OF DLLs IN EARLY MATH LEARNING

Experts agree that it is important for educators to engage families of all young learners, including DLLs, to make sure the math learning continues even when they aren't in school.

1 **Work with parents to highlight math language in everyday activities.** Help families see that they are already engaging in math language when they talk about shapes, matching, patterns, sorting, and logical reasoning while doing tasks with children like setting the table or folding laundry.

3 **Partner with parent leaders to share family math strategies with other dual language families.** Consider working with a few interested parents to design and host a "family fun night" focused on ways families can support their children's math learning at home. Parent facilitators are often able to connect with other parents in an authentic way, sharing their own questions about early math development. This can be especially important for parents who did not grow up in the U.S. and may have different experiences with math learning and approaches than their children.

2 **Make the link between early math skills and overall educational success.** Emphasize to parents that their children need early math skills to be ready for kindergarten, and that building strong early math skills will help them be successful in many later academic subjects and in life beyond school.

Parents came with closed minds about math but left the training thinking that math could be so much more fun. Math is everywhere. You don't need a specific language to do math.

Rosalia, Chicago
parent interviewed
for Language Counts



For more information about DLLs and early math see [*Language Counts: Supporting Early Math Development for Dual Language Learners*](#)