

## Working with Your Child's Teacher to Identify and Address Math Disabilities

Educators and researchers are beginning to pay more attention to the notion that some students have difficulty learning math skills and concepts taught in today's classrooms. It is important for school personnel and parents to work together to identify math problems when they arise and to address them both at school and home. Identifying and addressing math difficulties in the early grades can potentially prevent more serious problems in later grades. This article will explain how children are identified as having a math disability and suggest ways to work with your child's teacher to address the problems.

### How Are Math Disabilities Identified?

Mathematics disabilities are identified through a variety of procedures. Usually the classroom teacher or parent observes that the child is having persistent difficulty learning mathematics and tends to perform poorly on classroom math assessments compared to the rest of the class. For example, the child may have trouble remembering what the teacher has taught or she may have difficulty using effective strategies to solve math problems. By observing and working directly with a child over time, the teacher can determine if her difficulty learning mathematics is persistent. Unfortunately, mathematics disabilities are usually not identified until the upper elementary school years because early problems often go undetected and assessment results may not be sensitive enough to detect a problem until the later grades.

Information about the child's performance can be gathered in several ways. Weekly tests, homework, and class work samples are examples of **information the teacher can collect** about the child's progress learning the mathematics curriculum. The teacher may adapt how instruction is provided to accommodate a child's learning needs and then note how the child responds to those adaptations. The teacher may also seek assistance from a specialist or school support team who can offer additional ideas about how to adapt instruction for the child who is struggling to learn the curriculum. The teacher may also consult with the child's parents to understand how the child is doing on math homework. All of this information helps the teacher and school support team develop a profile of the child's learning difficulties and her response to instruction and adaptations.

If the child continues to exhibit learning problems, a formal referral for special education assessment might be recommended. There are a variety of **formal assessments** that can be used to identify math skills and concepts that are problematic for the child. Some of these measures are specific to the curriculum, some are diagnostic in nature, and others are viewed as measures of achievement. The school psychologist or other diagnostician determines which assessment measures to use for testing purposes. The following are examples of some of the more common assessment measures:

**Curriculum-based assessments** relate specifically to the skills and concepts typically taught in a certain grade level. Examples include:

- Brigance Comprehensive Inventory of Basic Skills-Revised
- Brigance Inventory of Essential Skills

**Diagnostic assessments** provide information about a student's strengths and weaknesses compared to students of the same age or grade level. Examples include:

- Key Math-Revised
- Stanford Diagnostic Mathematics Test-4

**Achievement assessments** broadly measure areas of academic knowledge and application and compare a child's performance to that of students of the same age or grade level. Examples include:

- Kaufman Test of Educational Achievement

- Peabody Individual Achievement Test-Revised
- Wide Range Achievement Test-3
- Woodcock-Johnson Psycho-Educational Battery, Part Two: Tests of Achievement

### Understanding Assessment Results

As the school assesses your child for a possible math disability, you can play an active role. For example, you can ask to see information collected by the classroom teacher on your child's math performance in class. Additionally, the school is required to inform you of the results of the assessment conducted as part of a special education referral for testing. You can [learn more about the results from any of the assessments](#) by asking some of the following questions:

- What skills and concepts do the assessment measure?
- How much and what type of instruction has my child received prior to the assessment?
- What information does the assessment provide?
- How will the assessment results be used to provide more appropriate math instruction for my child?
- Who is the best person (at school or an outside professional) to provide my child with extra math support? If you and the teacher think a tutor would offer the type of assistance your child needs, don't hesitate to ask the teacher for recommendations.

### Different Models for Identifying Learning Disabilities

Most school districts currently use a process called the discrepancy model to identify whether a child has a specific learning disability (LD), as defined by state regulations. In the discrepancy model, the school psychologist determines if there is a significant discrepancy between a child's potential (usually measured by an intelligence, or IQ, test) and achievement (as measured by an achievement test). Researchers have called this model into question for a variety of reasons; it is viewed by many as an inappropriate method for identifying LD, in part because a child must experience academic failure before her LD is identified.

With this in mind, the current Individuals with Disabilities Education Act (IDEA 2004) legislation permits states (and school districts) to use alternative procedures for identifying LD. [The response-to-intervention model](#) looks at how a child responds to research-based instruction over time.<sup>1</sup> In this approach, math instruction that is delivered in small groups and tailored for the child's learning needs is implemented and the child's progress noted.

### Working with Your Child's Teacher to Identify and Address Math Difficulties

You can play an active role in helping to identify and address your child's math difficulties. For example, you can work with your child's teacher by:

- sharing information and observations about any difficulties your child has completing homework.
- being involved in the assessment process.
- asking questions about instructional (teaching) practices.

To address your child's math difficulties at home, you can develop a sense of her questions and frustrations while supervising and observing her doing homework. Here are some questions to ask your child to help her approach her math homework assignments:

- How did your teacher explain the problems in class today?
- Did you do any math problems like this in class today? Could they help you figure out your homework?

- Did your teacher explain the steps for solving this type of problem?
- How can you break the problem into smaller chunks to help you solve it?

Noting your child's responses to the questions — and sharing this information with her classroom teacher — may provide insight into the particular difficulties your child is experiencing.

Finally, you can **learn about the instructional practices** used by teachers and math specialists to help your child. When talking with your child's math teacher, ask some of the following questions:

- What math skills will you teach during the next report card grading period?
- How do you use small group work and peer support to provide extra math assistance?
- What types of adaptations will you provide if my child struggles learning the math skills and concepts?
- How can a calculator be used to help my child perform basic calculations to solve more advanced math problems?
- What strategies or steps will you provide to help my child learn and solve math problems?
- What math vocabulary is included in classroom lessons that we can reinforce at home?
- Is there math software that would help my child practice math skills?

### Summing it Up

By working with your child's teacher, you can help ensure that your child's math needs are being identified and addressed. This article has offered a series of questions about assessment and instructional practices to help you collaborate effectively with your child's teacher. Above all, remember that your observations and input as a parent are valuable to the process of helping your child succeed in school.

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