Chunking Strategy for Multiplication

Multiplication is a task that involves recalling basic math facts, remembering procedures to be followed, working carefully, and checking one's work. Sometimes children need a way to organize the numbers when doing multiplication, especially when they try to do the work by breaking the multiplication problem into parts. Providing these students with a strategy to do basic multiplication facts can help them be more successful.

The multiplication strategy of chunking helps children break the numerical problem into separate parts that can be more easily solved. Children who have trouble doing multiplication may benefit from this strategy because it helps them break the problem down into more manageable parts. The way the strategy works is that the children are taught to break the numbers into groups (i.e., chunks) that can be more easily managed. For example, 2×8 is the same as counting by twos eight times. If a child is taught to use a slash mark (/) for each step of counting by twos, when the eighth slash mark is written the problem is solved. Use the following steps to teach the chunking strategy:

1. Read the problem: $2 \times 8 =$ ____ .
2. Point to the number you use to count by twos.
3. Make the number of slash marks indicated by the other number (in this case the number 8).
4. Count by twos as you touch each mark: "2, 4, 6, 8 . . ."
5. Stop counting at the last mark: ". . . 10, 12, 14, 16."
6. The number you stop on is the answer: "16."

Who Should Learn the Chunking Strategy for Multiplication?

This strategy can be useful for students having difficulty learning multiplication facts. It can also be very useful for students who are poor in Planning or Successive processing. Children who score low in Planning processing are unlikely to have good strategies for doing multiplication and will not figure out these strategies on their own (see Naglieri, 1999). Children with Successive processing problems have trouble remembering basic facts when they are taught in a sequence (e.g., $9 \times 8 = 72$). These children are also most likely to benefit from learning calculation strategies.

Resources

Excellent starting points for both students and teachers are available at forum.swarthmore.edu/dr.math/dr-math.html and http://www.mathgoodies.com.

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