

Sequenced Count-By for Basic Multiplication

Wilson, M. A. & Robinson, G. L. (1997). The use of count-by and constant time delay methods of teaching basic multiplication facts using parent volunteer tutors. *Mathematics Education Research Journal* 9.2, 174-190.

This targeted intervention helps students build fluency with basic multiplication facts by using the order of sequence for the multiple being counted.

Materials:

- Paper strips with multiplication problems and answers (i.e., $2 \times 3 = 6$)
- Facts tables for each multiplication sequence (i.e., see Step 3).

Steps:

1. The teacher models the Sequenced Count-By strategy by counting one particular multiple 12 times in 12 seconds (i.e. 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36).
2. The teacher presents only the first half of a particular multiplication table (i.e., 3, 6, 9, 12, 15, 18) by showing the student the total multiplication fact (i.e., $2 \times 3 = 6$) and after explanation, folding the paper strip to show just the answer.
3. Next, the teacher presents the following the multiplication facts table:

$1 \times 3 = 3$	$3 \times 1 = 3$		$= 3$
$2 \times 3 = 6$	$3 \times 2 = 6$		$= 6$
$3 \times 3 = 9$	$3 \times 3 = 9$	fold to display	$= 9$
$3 \times 4 = 12$	$4 \times 3 = 12$	answers only	$= 12$
$3 \times 5 = 15$	$5 \times 3 = 15$		$= 15$
$3 \times 6 = 18$	$6 \times 3 = 18$		$= 16$

4. The student uses the “answers only” to count until the rate of one count per second is achieved.
5. The student then counts from memory the sequence (i.e., 3, 6, 9, 12, 15, 16) until the rate of one count per second is achieved.
6. If the student has difficulty with this task, then the teacher reviews steps 2 – 5.
7. The same procedure is used to introduce the second half of the series (i.e., 21, 24, 27, 30, 33, 36).