THE

Number Reversals

WORKBOOK

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Reversals can be a real challenge. Without help, kids keep reversing letters and numbers, and they feel embarrassed (Brooks, Berninger, & Abbott, 2011). They can’t focus on important math concepts and accuracy. Instead, they spend their energy on forming the numbers.

Here’s the good news. Research has revealed that children who persist in making letter reversals often have dyslexia and/or working memory weaknesses (Brooks et. al., 2011). Specialized instruction that targets this memory glitch has been demonstrated to significantly decrease reversals (Brooks, 2003).

HOW THE INTERVENTION WORKS

1. **Children study a model number with visual cues.** Each numeral is accompanied by small, numbered arrows. These arrows show the sequence and direction of pencil strokes.

2. **Children cover up the model and then write the number from memory.** The child repeats this process for a total of three times.

3. **To develop self-monitoring skills, the child circles the numeral that shows his/her best effort**

4. **The task becomes more challenging.** As the child progresses, the time between looking at the model and writing the number increases from one second to five.

5. **Children practice, since this is a proven method to build skill and lasting memory.** We’ve included two exercises on each worksheet page. **Simple addition and subtraction problems** increase the working memory load to help students gain mastery. **Engaging number line puzzles** help build memory for number formation and build number sense.

HOW TO USE THE WORKBOOK

1) Administer the pretest, available on page four. Graph the percentage of numbers the child can accurately and automatically form.

2) Complete one worksheet page per day.

3) Administer the post-test. Celebrate your student’s success!
Lesson 1

Directions. Look at the number and the arrows. Take a “mental snapshot.” Then cover up the number. Wait for one second, and write the number. Repeat two more times. Circle your best number.

\[ \begin{array}{c}
\downarrow \\
1 \\
\end{array} \quad \begin{array}{c}
\downarrow \\
2 \\
\end{array} \]

Directions. Solve. You can look at the numbers you wrote above. To make this more challenging, cover up the numbers you wrote above.

\[
\begin{array}{c}
0 + 1 = \_\_\_\_\_\_\_\_\_\_\_ \\
1 + 1 = \_\_\_\_\_\_\_\_\_\_\_ \\
2 - 0 = \_\_\_\_\_\_\_\_\_\_\_ \\
1 - 0 = \_\_\_\_\_\_\_\_\_\_\_ \\
2 - 1 = \_\_\_\_\_\_\_\_\_\_\_ \\
\end{array}
\]

\[
\begin{array}{c}
3 - 1 = \_\_\_\_\_\_\_\_\_\_\_ \\
2 + 0 = \_\_\_\_\_\_\_\_\_\_\_ \\
3 - 1 = \_\_\_\_\_\_\_\_\_\_\_ \\
1 + 1 = \_\_\_\_\_\_\_\_\_\_\_ \\
2 - 1 = \_\_\_\_\_\_\_\_\_\_\_ \\
\end{array}
\]

Directions. Write the numbers missing from the number line. Cover up the rest of this page, so you can’t peek at the numbers you wrote above.

\[
\begin{array}{cccccccc}
& & & & & & & \\
& & & & 3 & 4 & 5 & 6 & 7 & 8 & 9 & \\
\end{array}
\]