

## Example MSBI Problem Solving Routines for Additive Problem Types

For more information on how to teach word problem solving to students with autism and intellectual disability, see [Root, Saunders, Cox, Gilley, & Clausen \(2022\)](#). Email [gcalab.fsu@gmail.com](mailto:gcalab.fsu@gmail.com) to request copies.

### Example Problem Solving Routine for Additive Problem Types

Below is an example of an additive problem solving routine that can be used to teach all three additive problem types: group/total, compare/difference, and change. The example shows a group/total problem. [The Solutions Project webpage](#) has more resources on teaching additive word problems using MSBI.

The following research papers summarize experimental studies that taught elementary and middle school students with extensive support needs (autism, moderate intellectual disability) to solve additive word problems using MSBI with this type of problem solving routine. Email [gcalab.fsu@gmail.com](mailto:gcalab.fsu@gmail.com) to request copies.

[Root, J. R., Ingelin, B., & Cox, S. K. \(2021\). Teaching mathematical word problem solving to students with autism spectrum disorder: A Best-Evidence Synthesis. \*Education and Training in Autism and Developmental Disabilities\*, 56\(4\), 420-436.](#)

[Spooner, F., Saunders, A., Root, J., & Brosh, C. \(2017\). Promoting access to common core mathematics for students with severe disabilities through mathematical problem solving. \*Research and Practice for Persons with Severe Disabilities\*, 42\(3\), 171-186.](#)

|     |   |                 |                                                    |
|-----|---|-----------------|----------------------------------------------------|
| 1.  | ✓ |                 | Read the problem                                   |
| 2.  | ✓ |                 | Find and circle what problem is about              |
| 3.  | ✓ | How many  ?<br> | Fill in label                                      |
| 4.  | ✓ | or or           | Circle: solving for same, different, or comparing? |
| 5.  | ✓ |                 | Use the rule                                       |
| 6.  | ✓ |                 | Choose diagram                                     |
| 7.  | ✓ |                 | Circle the numbers                                 |
| 8.  | ✓ |                 | Fill-in number sentence                            |
| 9.  | ✓ |                 | + or -                                             |
| 10. | ✓ |                 | Make Sets                                          |
| 11. | ✓ |                 | Solve & write answer with label                    |

The students walk around the museum in groups.

Each group has 3 students.

Each group has 2 adults.

How many people are in each group?

$$3 + 2 = 5 \text{ people}$$

