Cover Copy Compare (CCC): Intervention Overview

Target Behavior

CCC was designed to be used with an individual or group of students who need to increase accuracy and fluency when completing basic math facts (i.e., addition, subtraction, multiplication, division). For students who respond inaccurately, CCC provides procedures that ensure errorless learning and for students who respond accurately but slowly (e.g., less than 20 correct digits per minute) CCC provides repeated practice. While CCC will primarily be used in elementary grades, older students with accuracy and/or fluency deficiencies in basic fact skills can benefit as well.

Materials

 CCC Worksheet, Implementation Checklist, Pencil, Timer (optional)

CCC Procedures: Student

1. Student looks at the problem and answer (e.g., a math fact problem) and says it.

2. Student covers the problem.

3. Student writes the problem and answer in space provided.

4. Student uncovers the model and checks for accuracy.

CCC Procedures: Teacher

1. Teacher training: Read MIND: Computation packet & watch CCC training clips.

2. Select CCC approach: A) Standard or B) Fact Families.

3. Obtain probes: Select probes to match student needs on fact operation, problem set size, & number of repetitions.

4. Give student probe, read directions, provide student with procedural feedback as needed, collect completed probe, provide student with feedback on performance

CCC Variations

1. CCC-Standard (use with students scoring < 20 DCPM)
2. CCC-Fact Triangles (use to program cross skill generalization)

CCC: Standard – Student Training Protocol

Use this to train students how to use CCC: Standard procedures. This training script was written for a class wide application; however, it should be fairly easy to adapt to either a small group or individual student. The steps are as follows:

1. Pass out the CCC sheets to students and instruct them to write their names at the top of the paper.

2. Read the following directions, "Today we are going to do something new. We are going to do math problems using something called Cover, Copy, and Compare. (Pause) Look at your worksheets. On the worksheet you will see columns of math problems with an empty space next to each problem, you are going to use Cover, Copy, and Compare to complete these".

3. Continue reading, "Doing Cover, Copy, and Compare is easy. Look at the first problem. It is (read problem & answer). When doing Cover, Copy, and Compare you begin by looking at the problem and saying it to yourself. With this problem it is (read problem & answer). Next, you cover the problem and answer with your hand, everybody cover it. After it is covered, then you write the problem and answer in the space directly next to it, now everybody write the problem and answer. After you have written the problem and answer uncover it and check to see if what you wrote is correct. (Pause) Did everyone write the correct problem & answer? If you have written the wrong problem and answer then cross it out and write in the correct problem or answer. Does anyone have any questions? (Pause)

4. Continue reading, "Now let's try the next problem it is (read problem & answer). Remember look at the problem, say it to yourself, and then cover it. Next, write the problem and answer (Pause for students to complete the step). Lastly, uncover the problem to see if you did it correctly. When you have written the problem and answered it correctly then go to the next problem. Complete these until you have finished the sheet.

5. If anyone has any questions, or is unsure of how to do Cover, Copy, and Compare then raise your hand and I will come to your desk and show you how to do this.

6. Repeat as necessary

This training script is generally successful for a majority of students. As you are reading the directions cycle though the room to check for adherence to protocol. In addition, point out students who are doing the steps correctly and provide behavior specific praise for correctly implementing CCC steps.

CCC: Standard – Treatment Integrity Protocol

This is to be used by teachers when they are prompting students to use the CCC: Standard procedure. It is meant to ensure adherence to treatment and should be used when administering CCC: Standard throughout the course of the treatment. Pay special attention to accurately record the amount of instructional time that the student engages in the CCC procedure.

Student(s):_____   Date: _____   Start/End Time: _____

Materials

<u>Required</u>: □ CCC: Standard Worksheet   □ Implementation Checklist   □ Pencil

<u>Optional</u>: □ Timer   □ Graph (for self-graphing)   □ Rewards

Intervention Procedures

1. Document date, start time, & end time: This is useful when investigating student response to intervention. You can answer how often and consistently CCC: Standard was done and how many instructional minutes were spent with the student engaged with CCC. □

2. Pass out the CCC: Standard worksheet(s) to students and have them put their name at the top of the paper. If using performance feedback and/or reward, instruct them to see if they can beat their score from the previous day and what reward they may be able to obtain. □

3. Read the following directions if giving the student <u>unlimited time</u> to complete the CCC: Standard worksheet, "Here is/are your CCC worksheet(s), I want you to complete all of the problems. When you have finished all of the problems, raise your hand and I will collect your worksheet(s). Ready, Begin." □

If you are timing the student read these directions, "Here are your worksheets. You will have ___ minutes to do as many problems as you can using the Cover, Copy, Compare worksheet. If you finish with all of the problems, raise your hand and I will bring you another worksheet. When I say stop, put down your pencil and I will collect your paper. Ready, Begin". □

If timing, stop them after x minutes and have them hand in their worksheet. □

Remember to constantly be walking around the room to prompt and/or help students who are not working. Look for any mistakes and give students feedback so they can correct any incorrect response(s). □

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$\begin{array}{r} 5 \\ + 2 \\ \hline 7 \end{array}$		$\begin{array}{r} 3 \\ + 8 \\ \hline 11 \end{array}$		$\begin{array}{r} 7 \\ + 7 \\ \hline 14 \end{array}$		$\begin{array}{r} 8 \\ + 3 \\ \hline 11 \end{array}$	
$\begin{array}{r} 7 \\ + 7 \\ \hline 14 \end{array}$		$\begin{array}{r} 6 \\ + 5 \\ \hline 11 \end{array}$		$\begin{array}{r} 3 \\ + 3 \\ \hline 6 \end{array}$		$\begin{array}{r} 4 \\ + 4 \\ \hline 8 \end{array}$	
$\begin{array}{r} 9 \\ + 6 \\ \hline 15 \end{array}$		$\begin{array}{r} 4 \\ + 4 \\ \hline 8 \end{array}$		$\begin{array}{r} 5 \\ + 6 \\ \hline 11 \end{array}$		$\begin{array}{r} 2 \\ + 5 \\ \hline 7 \end{array}$	
$\begin{array}{r} 2 \\ + 8 \\ \hline 10 \end{array}$		$\begin{array}{r} 9 \\ + 4 \\ \hline 13 \end{array}$		$\begin{array}{r} 7 \\ + 6 \\ \hline 13 \end{array}$		$\begin{array}{r} 8 \\ + 2 \\ \hline 10 \end{array}$	

CCC: Fact Families – Student Training Protocol

Use this to train students how to use the CCC: Fact Families procedures. This training script was written for a classwide application; however, it should be fairly easy to adapt to either a small group or individual student. The steps are as follows:

1. Pass out the CCC sheets to students and instruct them to write their names at the top of the paper.

2. Read the following directions, "Today we are going to do something new. We are going to do math problems using Cover, Copy, and Compare. (Pause) Look at your worksheets. On the worksheet you will see columns of math fact families with two empty spaces next to each fact family, you are going to use Cover, Copy, and Compare to complete these".

3. Continue reading, "Doing Cover, Copy, and Compare is easy. Look at the first fact family. It is (read fact family). When doing Cover, Copy, and Compare you begin by looking at the fact family, making a problem from the family, and saying it to yourself. With this fact family a possible problem is (read problem & answer). Next, you cover the fact family with your hand, and you write the problem and answer in the space directly next to it, now everybody write the problem and answer. After you have written the problem and answer uncover it and check to see if what you wrote is correct. (Pause) Now, in the space next to the problem you just wrote, I want you to write the reciprocal fact (teacher will need to preteach what this is, terminology can be changed). Did everyone write the two correct problems from the fact family? If you have written a wrong problem and answer then cross it out and write in the correct problem or answer. Does anyone have any questions? (Pause)

4. Continue reading, "Now let's try the next family, it is (read problem & answer). Remember look at the family, make a problem from the family, say it to yourself, and then cover it. Next, write the problem and answer (Pause for students to complete the step). Lastly, uncover the problem to see if you did it correctly. When you have written the problem and answered it correctly then write the reciprocal problem. Go to the next family and complete these until you have finished the sheet.

5. If anyone has any questions, or is unsure of how to do Cover, Copy, and Compare then raise your hand and I will come to your desk and show you how to do this.

6. Repeat as necessary

This training script is generally successful for a majority of students. As you are reading the directions cycle though the room to check for adherence to protocol. In addition, point out students who are doing the steps correctly and provide behavior specific praise for correctly implementing CCC steps.

CCC: Fact Families – Treatment Integrity Protocol

This is to be used by teachers when they are prompting students to use the CCC: Fact Families procedure. It is meant to ensure adherence to treatment and should be used the first few times when you are administering CCC: standard or when you feel you may need a refresher on the procedures.

Student(s):_____   Date: _____   Start/End Time: _____

Materials

Required: □ CCC: Fact Families Worksheet   □ Implementation Checklist   □ Pencil

Optional: □ Timer   □ Graph (for self-graphing)   □ Rewards

Intervention Procedures

1. Document date, start time, & end time: This is useful when investigating student response to intervention. You can answer how often and consistently CCC: Fact Families was done and how many instructional minutes were spent with the student engaged in the procedure. □

2. Pass out the CCC: Fact Families worksheets to students and have them put their name at the top of the paper. If using performance feedback and/or reward, instruct them to see if they can beat their score from the previous day and what reward they may be able to obtain. □

3. Read the following directions if giving the student underlined time to complete the CCC: Fact Families worksheet, "Here is/are your CCC: Fact Families worksheet(s), I want you to complete all of the problems. When you have finished all of the problems, raise your hand and I will collect your worksheet(s). Ready, Begin." □

If you are timing the student read the following directions, "Here are your worksheets. You will have (x amount) minutes to do as many problems as you can using the Cover, Copy, Compare worksheet. If you finish with all of the problems, raise your hand and I will bring you another worksheet. When I say stop, put down your pencil and I will collect your paper. Ready, Begin". □

4. If timing, stop them after x minutes and have them hand in their worksheet. □

Remember to constantly be walking around the room to prompt and/or help students who are not working. Look for any mistakes and give students feedback so they can correct any incorrect response(s). □

72 8 — 9			42 6 — 7		
15 5 — 3			54 9 — 6		
49 7 — 7			16 2 — 8		
10 3 — 5			24 8 — 3		
30 6 — 5			36 9 — 4		
9 3 — 3			16 4 — 4		