

Running head: CHORAL RESPONDING

Good Noise!

Using Choral Responding to Increase the Effectiveness of Group Instruction

Charles L. Wood

University of North Carolina at Charlotte

William L. Heward

The Ohio State University

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It's an unseasonably warm, spring afternoon and the end of the school year is fast approaching. Miss Witney is worried because she still hasn't completed her unit on multiplication facts. She moves about the classroom observing her second graders as they work in pairs, separating small blocks into piles of five. Emily and Jared raise their hands, point to their block piles, and peer up at Miss Witney, who smiles and says, "You got it! That's 5 times 4!" From across the room Anthony hollers, "I don't get it!" Miss Witney isn't surprised. Anthony, a student recently identified as learning disabled, usually doesn't get it. Miss Witney pauses and takes a deep breath. She scans the room and realizes that, besides Emily and Jared, only a few other students seem to be catching on. Several children are gazing out the window at the playground. A horrible noise fills the room as blocks begin to spill off desks, papers crumple, and pencils grind in the sharpener. "Please listen!" shouts Miss Witney. The children freeze. "We've been going over these multiplication facts every day for two weeks. Don't you understand?" Unfortunately, most of the children didn't.

On the way home Miss Witney remembers the special education teacher, Mr. Watts, telling her about a group instruction technique he uses called choral responding. "Maybe I'll give it a try," she mutters to herself.

* * * * *

Teachers, like Miss Witney, recognize the importance of actively engaging students during group instruction. A common strategy teachers use to encourage student participation is having students work with partners (e.g., cooperative learning). Students benefit from cooperative learning activities when the format is structured to promote active and frequent participation (e.g., Classwide Peer Tutoring) (Delquadri et al., 1986; Miller, Barbetta, & Heron, 1994).

Unstructured cooperative learning strategies, however, have limitations. Teachers find it difficult to keep all students on-task during the lesson. High achieving students frequently participate while others sit passively. This creates unwanted downtime that encourages students' off-task behavior. In many cases, low-performing students (e.g., students with learning disabilities) do not participate enough to achieve meaningful learning outcomes (Maheady, Mallette, Harper, & Saca, 1991).

Another common strategy teachers use to obtain student participation during group instruction is to pose a question or problem to the entire class and then call upon one student to answer. This provides an active learning opportunity for only the student who is called upon and often results in more frequent responses by high-achieving students and few or no responses by low-achieving students (Maheady et al., 1991).

An alternative to the unstructured cooperative learning and one-student-at-a-time methods of student participation is choral responding.

What Is Choral Responding?

Choral responding (CR) is a teaching technique that allows all students to respond aloud and in unison to a teacher-directed question (Heward, Courson, & Narayan, 1989; Sainato et al., 1987; Sindelar, Bursuck, & Halle, 1986). CR is nothing new. It has been around since the days of the one-room schoolhouse. CR has always been and continues to be a popular instructional method in foreign language classes. Remember your French teacher? Répétez-moi!

CR is the easiest of several methods (e.g., response cards, peer tutoring, timed math drills) for increasing active student response (ASR) during group instruction (Gardner, Heward, & Grossi, 1994; Miller & Heward, 1992). When ASR is counted and reported as frequency per lesson or rate per minute, it becomes a precise, response-based measure of learning (Heward, 1994). Research has shown that increased ASR is functionally related to academic achievement (Barbetta, Heron, & Heward, 1993; Cavanaugh, Heward, & Donelson, 1996; Narayan, Heward, Gardner, Courson, & Omness, 1990; Sainato, Strain, & Lyon, 1988). Research on choral responding has demonstrated a strong relationship between frequent student response during instruction and improved learning outcomes (see box 1).

CR has several advantages over one-student-at-a-time questions and answers (Heward, Courson, & Narayan, 1989; Lingenfelter, 1990). First, CR allows the teacher to present many opportunities for *all* students to actively participate. Second, it gives the teacher immediate feedback on whether or not the students are “getting it” and if review is needed. Third, because CR requires all students to participate, it is an effective strategy for including students with special learning needs in general education classrooms. Fourth, CR builds confidence in low achieving students by allowing them to perform well in front of their peers (Heward, Courson, & Narayan, 1989). Finally, when students are engaged in CR, off-task and disruptive behaviors are reduced (Heward, 1994).

Here is an example of CR used in an inclusive first grade classroom. Ms. Finch’s first graders have just finished reading a story about a young boy named Howard. Ms. Finch puts her storybook on her lap, holds up her hand and says, “Class, get ready to tell me the main character in today’s story.” She says, “Think big,” drops her hand as a signal, and the students chime in “Howard!” “Howard is right,” exclaims Ms. Finch. “Way to go!” She asks ten more quick questions – some about the setting and main idea. “Last one. Here we go. The problem Howard faced was finding his lost dog. Is that true or false? Think about it.” She signals and the students eagerly respond, “False!” The students laugh and so does Ms. Finch. “I couldn’t trick you, could I?” she asks. “Tell me why that’s false.” She calls on James who is frantically waving his hand to answer.

How To Do Choral Responding

Select Curricular Content

- *Select curricular content appropriate for short questions and answers.* Choose content for which students can make frequent responses (e.g., stating the vocabulary word for definitions, naming science concepts).

- *Schedule a 5 to 10 minute CR session.* Use short CR lessons for different subjects throughout the school day. Distributed CR practice (e.g., three mini-lessons) is better than one session of massed practice.
- *Prepare your questions and instruction materials* (e.g., Powerpoint® slides, overhead transparencies). Keep CR questions short and require only one correct, one to five word answers (e.g., How many sides does an octagon have?). Short questions and answers increase the number of opportunities to respond and receive teacher feedback.

Conduct Choral Responding

- *Model a question and response for the class.* For example, you say, “I’m going to ask some questions about yesterday’s science lesson. If I hold up this paper clip and ask, ‘What will a magnet do to this object?’ On my signal, you say, attract or not attract.” To make your expectations clear, demonstrate several examples and non-examples of correct responding.
- *Present questions clearly and directly.* Avoid long explanations or discussion. Succinct questions maintain students’ attention to the lesson content.
- *Allow thinking time.* For difficult questions, have a longer pause between your question and your signal to respond. Hold your hand up with your palm out (as a gesture to “wait”) to cue students to get ready to respond on your signal.
- *Use a clear signal.* Clear signals such as a snap, a clap, or simply saying, “everyone” indicate when it is the students’ turn to respond. A cue helps students respond in unison, making it easier for the teacher to detect correct and incorrect responses.
- *Give feedback on the group response.* If all students respond correctly, give specific praise and move on to the next question. If most students respond correctly, but a few do not, state the correct answer and return to it later. This will give those students an opportunity to correct their mistake.
- *Call on individual students throughout the lesson.* This allows you to assess low performing students who may have difficulty with the content. If low performers answer correctly, you can be confident that other students are also correct. Use this as an opportunity to reinforce a student’s accuracy, not to single out a student for his or her mistakes. Remember to ask your question before calling on a student. This cues students to maintain attention and not “drop out” when it is not their turn.
- *Maintain an energetic pace.* Present the next question immediately after you have given feedback on the previous response. Fast pacing promotes students’ participation, accuracy, and decreases off-task behavior.
- *Deliver praise and approval for students’ participation and correct responding.* For example, say, “You’re so smart!” and give “high fives” throughout the lesson. Your praise and approval can increase students’ motivation and make the CR lesson more fun.

Use Choral Responding to Review Concepts

CR serves as an effective review for previously learned concepts (Heward, Courson, & Narayan, 1989). For example, Mr. Remmington, a high school history teacher, could use CR to review the day's Civil War lesson. "Okay, class. I'm going to ask a series of questions about what we've covered in today's lesson. Your response will be Confederate or Union."

CR also serves as a "maintenance check" of students' mastery of earlier concepts (Heward, 1994). Mrs. Brown's students with cognitive disabilities learned to identify several community signs (e.g., restroom signs) last week. Mrs. Brown could assess her students' maintenance of this skill through CR. "Great! We haven't done these all week, and you still got it!" Paraprofessionals can also lead small groups of students in a CR review session (Courson & Heward, 1988).

Use Choral Responding to Teach New Skills

CR is not just for reviewing concepts and skills; it can be used to teach new ones (Carnine, Silbert, & Kameenui, 1997). First, identify the steps involved in performing the skill and the prerequisite skills needed to complete the steps. Second, provide fast-paced CR on each step or prerequisite skill. Listen to the students' unison response to assess their accuracy. Praise students' correct responses or provide corrective feedback on errors. Finally, use CR to move through the steps until students are performing the target skill. Figure 1 provides an example of teaching students to use the $>$ and $<$ symbols to compare numbers.

Use Choral Responding Throughout The School Day

Morning Drill

Morning drills (MD) are often used in schools employing a Direct Instruction curriculum (e.g., *Reading Mastery*, *Corrective Reading*, *Connecting Math Concepts*). MD is not a formal Direct Instruction method or curriculum, but shares many features of its teaching approach (e.g., clear signals for student response, in unison group response, corrective feedback and praise, and steady pacing). MD provides structure at the beginning of the school day and serves as a good CR "warm up" of basic academic skills. It also helps students maintain fluency of previously learned skills. MD should be no longer than 10 to 15 minutes each school day. Content from all subject areas can be covered in MD and should progressively and systematically become more challenging throughout the school year. Before students arrive, prepare for MD by setting up content (e.g., math facts) on the chalkboard, dry-erase charts, or overhead transparencies. Examples of MD content include calendar skills, counting in multiples (e.g., 5 to 50, 2-100, 3-30), basic math facts, money skills, telling time, story problems, sight words, words from a "word wall," vocabulary, spelling, sentence punctuation, map skills, and science and social studies facts. MD content should be adjusted to students grade and ability. Present MD just as you would conduct a CR lesson.

Intra-lesson

Interspersing CR within a lesson provides more opportunities for students to respond. Intra-lesson CR also helps teachers assess students' understanding of important concepts before proceeding further in a lesson. Based on students' performance during intra-lesson CR, teachers can determine if review is needed, make adjustments to the lesson, or note which components of the lesson were successful.

Lesson Summary

Using CR as a lesson summary gives students a chance to review new concepts. This is especially important when students are first acquiring a concept or skill and need extra practice to reach mastery (Heward, 1994). CR summaries of critical lesson content also help students prepare for quizzes and tests.

Transitions

Password (Johnson, 1990) is a way to have students actively respond during transition time from one activity to the next or transition to a different classroom or location in the school. With password, the teacher requires each student to answer a question correctly before exiting the classroom (e.g., "Robert, name three of the original U.S. colonies). An advantage of Password is it allows the teacher to adjust the level of difficulty or content for individual students. Although Password does not require whole-group response, it still provides opportunities for active student response.

During transitions, teachers can use CR and adapt Password for groups of students. This is a way to prevent a "mad dash" for the door. For example, Mr. Morgan requires his fourth grade students to choral respond before lining up for lunch, gym, music, and art. "Table one," he says. "Get ready to tell me the name of the land bridge early Americans used to cross from Asia into North America." "Beringia!" they say firmly. "Excellent, table one. Please line up for music class," says Mr. Morgan. "Table two, here's one for you."

Managing elementary students' behavior during transition from the classroom to another part of the school can be difficult. Students typically shove and poke each other, drag their fingers across the walls or lockers, knock on doors, and chat or argue with their peers ("He cut in front of me!") while walking down the hall. Consider CR during these tough transitions. This allows students to "walk and talk" while gaining additional opportunities to actively respond. To avoid disrupting other classrooms, have your students respond quietly, yet loud enough for you to hear.

Have Fun with Choral Responding

Games

CR is fun for students and teachers, especially when used in a game format. CR games add variety to a typical school day. Using CR games is a good way to end a difficult lesson or a long period of independent seatwork. Figure 2 provides examples of CR games. For more ideas of

games to increase active student response, see Wesson, Wilson, and Higbee-Mandlebaum, (1988).

Variations

When CR becomes a typical classroom routine, you can modify the standard procedures for other CR sessions (Heward, Courson, & Narayan, 1989). For example, you can easily teach students to lead a CR review session. With experience using CR, many students can imitate the teaching procedures, including signals, error correction, and pacing. Model the teaching procedures, let a student present CR questions from a script or poster, and give the student feedback on his or her presentation. Students enjoy leading CR review sessions. The opportunity to lead a CR session often serves as an effective reward for students who are not motivated to participate in large-group activities. Consider using student CR teachers during morning drills or transitions throughout the school day.

CR can be combined with other methods for increasing ASR, such as response cards and guided notes (Heward, 1994). This gives students more opportunities to respond to lesson content and receive feedback. During times when it is necessary to have a quiet classroom (e.g., the class next door is taking a test), replace CR with other easy-to-see hand or finger responses (McKenzie & Henry, 1979). Students can respond by holding up their fingers to match a multiple choice answer (Pratton & Hales, 1986) or show “thumbs up” or “thumbs down” to indicate a response. Younger students can make a “Simon Says” response (e.g., “Touch your ears if the answer is true, touch your nose if the answer is false.”). Whichever mode you choose, make sure students can quickly respond in unison and receive immediate feedback on the accuracy of their performance. Enjoy using CR and other variations, and have fun with your students.

* * * * *

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Figure Captions

Figure 1. Using choral responding to teach students to use > and < symbols to compare numbers. Procedure based on Engelmann, Carnine, et al. (1996). Prerequisite skill needed: Identify the larger number in a set of numbers. Teachers can easily include the equal sign in this lesson. Teachers can adjust the number of sets presented and repetitions based on students’ performance. Note that no “alligators eat bigger numbers.” This statement often just confuses students.

Figure 2. Choral responding games to promote active student response. Teachers can modify these games to fit any grade level.

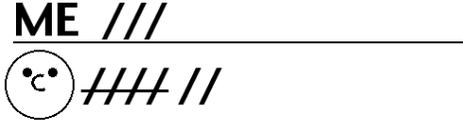
Figure 1.

Teacher and student script	Number sets on the chalkboard	
	Before	After
Step 1: Identify the bigger number		
Teacher: "I'm going to point to some numbers. When I touch under the numbers, you say which number is bigger." <i>Point under the first set. "Get ready."</i>	8 3	⑧ 3
Students: "Eight"	2 7	2 ⑦
Teacher: "Yes, eight is correct!" <i>Teacher circles the number eight and touches under the next set. "Get ready."</i>	9 10	9 ⑩
Students: "Seven."	7 6	⑦ 6
Teacher: "Way to go! Seven is bigger than two! <i>Teacher circles the number seven.</i>	4 3	④ 3
<i>Repeat for last three sets. Erase numbers and write new number sets.</i>		
Step 2a: State rule about bigger numbers		
Teacher: "Listen to this rule. The big number gets two dots. Say that."	3 6	3 :6
Students: "The big number gets two dots."	5 8	5 :8
Teacher: "Yes, the big number gets two dots. <i>Point under the first set of numbers. "When I touch under the numbers, you say which number is bigger." Point under the first set. "Get ready."</i>	4 1	4: 1
Students: "Six"		
Teacher: "You got it! Six is bigger! So, which number gets two dots?"		
Students: "Six"		
Teacher: <i>Makes two dots next to the six (shown in the after box). Repeat for next two number sets.</i>		
Step 2b: State rules about bigger and smaller numbers		
Teacher: "Listen. The big number gets two dots. Say that."	10 5	10: .5
Students: "The big number gets two dots."	0 3	0 . :3
Teacher: "Listen. The small number gets only one dot. Say that."	6 4	6: .4
Students: "The small number gets only one dot."		
<i>Repeat until students can firmly say both rules.</i>		
Teacher: <i>Point under the third set of numbers. "Which number is bigger? Get ready."</i>		
Students: "Ten"		
Teacher: Yes, ten. So, which number gets two dots?"		
Students: "Ten"		
Teacher: <i>Makes two dots next to the ten.</i>		
"Which number gets only one dot?"		
Students: "Five"		
Teacher: "Super work. Five only gets one dot. <i>Makes one dot next to the five.</i>		
<i>Repeat next two sets. Erase and write new number sets.</i>		

Figure 1. (continued)

Step 3: Draw > and < symbols	Before	After
<p><i>Repeat Step 2b with new number sets. After the first set, show students how to connect the dots.</i></p> <p>Teacher: “Now I’m going to show you how to connect the dots. Watch me.” <i>Draw a line from the higher dot of the bigger number to the single dot of the smaller number, and back to the lower dot of the bigger number. (See after box)</i></p> <p><i>Present the remaining number sets.</i></p> <p><i>Show examples of correctly drawing lines and examples of incorrectly drawing the lines. Have students CR if you are “right” or “wrong.”</i></p> <p><i>Erase and write new number sets.</i></p>	<p>4 1</p> <p>9 3</p> <p>8 7</p> <p>0 10</p> <p>4 5</p>	<p>4 > 1</p> <p>9 > 3</p> <p>8 > 7</p> <p>0 < 10</p> <p>4 < 5</p>
Step 4: Read number sentences with > and < symbols	Before	After
<p><i>Repeat steps 1 –3. After the first number set, show students how to read the number sentence:</i></p> <p>Teacher: Listen. Another word for bigger is greater. What is another word for bigger?</p> <p>Students: “Greater.”</p> <p>Teacher: “Yes, another word for bigger is greater. Way to go!</p> <p>Listen. Another word for smaller is lesser. What is another word for smaller?</p> <p>Students: “Lesser”</p> <p>Teacher: “You got it! I will read the first number sentence. Watch and listen.</p> <p>Teacher: “Eight is greater than two.”</p> <p>Your turn to read the number sentence.</p> <p>Students: “Eight is greater than two.”</p> <p><i>Repeat for remaining number sets.</i></p> <p><i>Write more number sets. Have students CR through all the steps. Call on an individual student at times to assess his or her performance.</i></p>	<p>8 2</p> <p>8 10</p> <p>4 7</p> <p>3 1</p> <p>6 8</p>	<p>8 > 2</p> <p>8 < 10</p> <p>4 < 7</p> <p>3 > 1</p> <p>6 < 8</p>

Figure 2.

<p>GAME: Teacher – Student Game (e.g., Engelmann, 1969; Engelmann & Bruner, 1995)</p> <p>GRADE LEVEL: Lower elementary</p> <p>DESCRIPTION: The Teacher-Student game can be used in any CR lesson. This game is especially helpful when teaching students how to do CR. Draw a horizontal line on the chalkboard or dry-erase board. Write the word “ME” above the left side of the line. Draw a face (2 eyes, a nose, and no smile) below the left side of the line. Tell students that they earn 1 point each time the whole group answers correctly, and that you earn a point when they are incorrect, or when they do not answer at the same time. Determine how many points are needed to win. Teacher’s points are marked next to ME. Students’ points are marked next to the face. Begin the CR lesson and award points for each response. Use reminders to set the occasion for students to win, but act as if you are trying to score points. When the students win, call on a student to draw a smile on the face.</p> <p>ME /// </p>
<p>GAME: CR Simon Says</p> <p>GRADE LEVEL: Lower elementary</p> <p>DESCRIPTION: Play this game as you would normally play Simon Says, but add a CR requirement. For example, the teacher says, “Simon says, ‘Name the closest planet to the sun,’ then touch your head” Students respond “Mercury” and touch their heads. Teacher says, “Spell October and hop on one foot.” Several students do not respond, but a few do. Teacher says, “Remember, I didn’t say Simon says!”</p>
<p>GAME: Back and Forth Counting</p> <p>GRADE LEVEL: Elementary</p> <p>DESCRIPTION: This CR game gives students a lot of practice counting forward, backward, and counting in multiples. The game can be played as teacher vs. students, between two groups of students, or one on one. One team says a number and the other team has to quickly respond by saying the next number in sequence. Each team responds “back and forth”(e.g., Team one “3.” Team two, “6,” team one, “9” and so forth) until a team makes a mistake. If needed, allow teams to earn points for correct responding.</p>
<p>GAME: CR Hot Potato</p> <p>GRADE LEVEL: Elementary. Called “Around the World” for older students.</p> <p>DESCRIPTION: Have students stand and form a large circle. Present fast-paced CR on content that does not require much thinking time (e.g., basic facts). While students respond in unison, have them pass the “hot potato” (i.e., a bean bag or small ball) around the circle. Continue CR and say, “Stop” when the class makes an error. The student holding the bean bag or ball gets “caught holding the hot potato.”</p>