Purposeful Assessment Practices for Co-Teachers

Greg Conderman and Laura Hedin

Stephanie and Eweard co-teach reading in their second-grade classroom. They think students are making progress on critical skills associated with district and state standards. Julia and Joe co-teach middle school mathematics. They are unsure how to group students instructionally and how to determine what students already know regarding an upcoming instructional unit. Myrna and Arlo co-teach high school science and rely on publisher-developed multiple-choice tests as their primary assessment tool. All of these co-teachers are involved in co-planning and co-instructing, but they are unsure how to approach co-assessment. Specifically, they have not yet established ways to capitalize on each other’s assessment expertise, vary the type of assessment, or differentiate assessments based on students’ individualized education programs (IEPs). Consequently, they hope students are making progress, rely on assessment practices they have used in the past, or provide the same assessment for all students. This article explores ways that co-teachers can collaboratively discuss, use, and differentiate assessments to inform instruction.

Friend and Cook (2010) defined co-teaching as “a service delivery option for providing special education or related services to students with disabilities or other special needs . . . in their general education classes” (p. 109). In co-taught classes, students with disabilities receive instruction from highly qualified teachers, interact with a rigorous curriculum, and receive necessary individualized supports and interventions as noted in their IEPs (Conderman & Hedin, 2010).

Co-teaching occurs as two professionals share responsibilities for all students within a common space and has three components: co-planning, co-instructing, and co-assessing (Conderman, Bresnahan, & Pedersen, 2009; Conderman & Hedin 2010; Dieker &

toward general education standards. Each co-teaching model allows teachers to collaborate by differentiating instruction and assessments.

What Is Co-Assessment?
To cite, the professional co-teaching literature has emphasized co-planning (e.g., Bryant & Land, 1998; Murawski & Dieker, 2004; Ploessl, Rock, & Schoenfeld, 2010) and co-instructing (e.g., Rice, Drame, Owens, & Frattura, 2007; Wilson, 2008). Researchers have rarely investigated the ways teachers differentiate assessments and the effects of co-assessment in co-taught settings.

Magiera and Zigmond (2005) reported that special educators in co-taught classrooms frequently monitored stu-

Researchers have rarely investigated the ways teachers differentiate assessments and the effects of co-assessment in co-taught settings.

Murawski, 2003; Murawski, 2008). There are various instructional models from which to choose (e.g., one teach/one assist, one teach/one observe, station, parallel, alternative, and team teaching) to meet diverse student needs while differentiating instruction, thereby supporting students’ progress.
<table>
<thead>
<tr>
<th>Type of Assessment</th>
<th>Use</th>
<th>Example in Co-Taught Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norm-referenced</td>
<td>To compare a student’s score to others in the same age or grade</td>
<td>Together, Myrna and Arlo review student reading scores from recent state exams. They choose different leveled reading materials matched to student scores and decide which students need additional reading accommodations.</td>
</tr>
<tr>
<td>Criterion-referenced</td>
<td>To compare a student’s score to a predetermined standard</td>
<td>Stephanie and Eveard require all students to earn at least 90% on their phonemic awareness test. Stephanie teaches the whole group; Eveard reassesses individual students.</td>
</tr>
<tr>
<td>Individual-referenced</td>
<td>To compare a student’s score with his or her previous performance</td>
<td>Teri and Dave note individual student growth over time on written science lab reports. Teri reteaches writing skills to students demonstrating minimal gains.</td>
</tr>
<tr>
<td>Curriculum-based</td>
<td>To determine the student’s knowledge of or skills with material presented in the curriculum</td>
<td>Violet and Les administer weekly math quizzes on skills covered during the week. They divide the grading, each scoring ~14 quizzes on Fridays.</td>
</tr>
<tr>
<td>Performance-based</td>
<td>To provide opportunities for students to apply skills or knowledge to real-life situations which require problem solving skills</td>
<td>Students in Maria and Toni’s Basic Math class complete real-life problems and projects to demonstrate course competencies. Teachers share responsibility for developing projects.</td>
</tr>
<tr>
<td>Self-assessments</td>
<td>To encourage self-reflection and analysis</td>
<td>Students in Sal and Bonita’s Composition 1 class set writing goals and reflect on their progress. Both teachers conduct weekly conferences with students.</td>
</tr>
<tr>
<td>Alternative</td>
<td>To provide a different method of gathering information about the progress of students who do not participate in state assessments</td>
<td>Greta, a seventh grader with intellectual disability, maintains a portfolio to demonstrate her progress in language arts. Her co-teachers help her organize materials for her upcoming student-led IEP conference.</td>
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</tbody>
</table>

Related items, and the 19-item student survey included only one. None of the classroom dimensions during co-teaching observations related to assessment. Similarly, Harbort and colleagues (2007) coded secondary co-teachers’ classroom behaviors using momentary time sampling; however, none of the coding categories explicitly referred to assessment or evaluation of student performance.

Researchers also have observed that co-teachers tend to use the one teach/one assist model (Scruggs, Mastropieri, & McDuffie, 2007). Because this model may not allow co-teachers to purposefully use multiple opportunities to assess students’ performance, adjust instruction based on data, or collaboratively to strengthen and differentiate assessments, Murawski and Hughes (2009) recommended that co-teachers use the full range of co-teaching models and components, including co-assessment.

**Types and Uses of Educational Assessment**

Assessment refers to the process of gathering data on student performance to inform instructional decision making (Ntiko & Brookhart, 2010). Due to the range of information gleaned through assessments, no single measure provides sufficient information for a global picture of student progress (Nolet & McLaughlin, 2005). Teachers need to have available and base their decisions on data from various assessments, such as those described in Table 1. Table 1 illustrates how—based on their skills, familiarity with assessments, and relationship with students—co-teachers can share assessment responsibilities. Planning for purposeful co-assessment occurs at four points in time: as co-teaching teams form, before lessons or units of study begin, during instruction, and after instruction.

**Purposeful Assessment Before Teams Begin**

When forming teaching partnerships, co-teachers should discuss their assessment philosophies, and practices and strategies for handling conflict. Discussing assessment and grading...
requirements, preferences, practices, progress-monitoring systems, and philosophies early in the co-teaching relationship may prevent later misunderstanding and conflict. Figure 1 includes questions that we developed and used with Illinois middle school co-teachers to guide this discussion.

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Because co-teachers may or may not have similar assessment experiences, strengths, backgrounds, and philosophies, when sharing assessment skills and beliefs it is important to listen carefully and to consider ways to collaborate and build on each another’s strengths. For example, while discussing questions from Figure 1, Myrna shared her experiences developing summative assessments, constructing rubrics, and using the school’s reporting grading system; Arlo noted his expertise developing formative assessments, designing progress-monitoring systems, and modifying assessments—all of which can be used effectively in their co-taught classroom.

During this discussion, co-teachers may discover that some assessment practices may not represent personal choices or decisions but are constraints placed on them. For example, content-area teachers may have limited flexibility selecting assessments due to departmental and content-area standards. Similarly, students’ IEPs may dictate timing assessment accommodations associated with presentation mode; response mode; and scheduling, setting, and linguistics (Saland, 2008).

During this phase, co-teachers should agree on how they will share responsibilities such as grading, developing rubrics and scoring sheets, maintaining the grade book, communicating student progress to parents, gathering data for response-to-intervention decisions, and ensuring that testing accommodations are prepared and implemented. In other words, they must determine how assessment practices in their classroom will be more effective with two professionals sharing tasks and how to differentiate between reporting of grades and ongoing assessment of learning activities. Co-assessment should result in more accurate class strengths and needs and differentiate skill instruction for individuals and small groups. For example, middle school language arts co-teachers Joel and Marshall developed a spreadsheet with students’ most recent standardized reading and writing scores. They color-coded scores indicating students at or above grade level (green), approaching grade level (yellow), or achieving below grade level (red). Color-coding provided a quick visual reference that they used to choose instructional materials and plan small-group instruction. Their spreadsheet also included students’ assessment accommodations or modifications, serving as a helpful reminder during instruction and before administering classroom tests. Implementing accommodations before high-stakes tests allows teachers to determine whether accommodations are valid, effective, useful, and fair (Cox, Herner, Demczyk, & Nieberding, 2006); using accommodations for the first time on a high-stakes test may confuse or frustrate students (Laitussels & Cook, 2007).

Based on standardized test scores and other available data, Joel and Marshall designed five learning stations, and students rotated through four. At Centers 1 through 3, all students completed activities based on core language arts standards. The remaining two centers differentiated activities. For example, Center 4 included explicit instruction in paragraph writing using the TREE strategy (Harris, Graham, & Mason, 2002), and Center 5 included an advanced vocabulary activity. By differentiating instruction curing station teaching, Joel and Marshall met individual needs based on available assessment data.

Co-assessment should result in more accurate and informative data than one teacher alone can collect.

**Purposeful Assessment Before Instruction**

Co-teachers may have several sources of student assessment data to use before instruction. Although no one way is the correct way to use available data, co-teachers should consider what data they have and how they can put it to best use.

**Standardized Test Scores**

Teachers typically have results of recent state or district tests. Co-teachers can review their class profile of standardized test scores to identify

**Curriculum-Based Assessments**

Curriculum-based assessments (CBA) provide teachers with information on how well a student performs on
### Figure 1. Checklist for Purposeful Co-Assessment

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Yes/No</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before co-teaching teams begin, have we . . .</td>
<td></td>
<td>Conderman, Bresnahan, &amp; Pedersen (2009); McNair, Bhargava, Adams, Edgerton, &amp; Kypros (2003)</td>
</tr>
<tr>
<td>Discussed our strengths and needs regarding assessment practices?</td>
<td>Y/N</td>
<td>Silva, Munk, &amp; Bursuck (2005)</td>
</tr>
<tr>
<td>Decided how to share grading responsibilities?</td>
<td>Y/N</td>
<td>Friend &amp; Cook (2010)</td>
</tr>
<tr>
<td>Planned how both teachers will be purposefully engaged during co-teaching?</td>
<td>Y/N</td>
<td>Elliott &amp; Thurlow (2006); Salend (2008)</td>
</tr>
<tr>
<td>Discussed IEP assessment accommodations and modifications?</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Before instruction, have we . . .</td>
<td></td>
<td>Conderman et al. (2009); Provost, Lambert, &amp; Babkin (2010)</td>
</tr>
<tr>
<td>Collected relevant data on students’ existing knowledge and skills?</td>
<td>Y/N</td>
<td>Garcia (2007); Lingo, Barton-Arwood, &amp; Jolivette (2011)</td>
</tr>
<tr>
<td>Created a system for monitoring students’ assessment data?</td>
<td>Y/N</td>
<td>Honolulu Community College (2011)</td>
</tr>
<tr>
<td>Aligned co-teaching models with assessment practices?</td>
<td>Y/N</td>
<td>Connor (2003); Ogle (1989)</td>
</tr>
<tr>
<td>Planned for assessment activities that will activate students’ background knowledge?</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>During instruction, have we . . .</td>
<td></td>
<td>Wadsworth &amp; Knight (1999)</td>
</tr>
<tr>
<td>Organized the classroom and instruction to facilitate ongoing assessment?</td>
<td>Y/N</td>
<td>Moss &amp; Crowley (2011)</td>
</tr>
<tr>
<td>Planned opportunities for students to demonstrate their understanding through active engagement?</td>
<td>Y/N</td>
<td>Stecker, Lembke, &amp; Foegen (2008)</td>
</tr>
<tr>
<td>Determined how data on student responses will be collected and used?</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>After instruction, have we . . .</td>
<td></td>
<td>McMillan &amp; Nash (2000)</td>
</tr>
<tr>
<td>Conducted formative and summative assessments aligned with learning objectives?</td>
<td>Y/N</td>
<td>Conderman &amp; Korcglmian (2002)</td>
</tr>
<tr>
<td>Used different types of assessments and co-teaching formats aligned with lesson objectives and student characteristics?</td>
<td>Y/N</td>
<td>Laitusis &amp; Cook (2007); Salend (2008)</td>
</tr>
<tr>
<td>Followed IEP requirements for accommodations and modifications?</td>
<td>Y/N</td>
<td></td>
</tr>
</tbody>
</table>

*Note. IEP = individualized education program.*
materials or skills associated with a particular course. Typically, teachers transform books or curriculum materials into probes or quick informal assessments. Universal screening tools such as Aimsweb provide curriculum-based information about students’ reading and math performance. Teachers can also print data reports available through progress-monitoring systems with published curricula. Data from these probes help co-teachers anticipate what students have already mastered or may find challenging in the curriculum.

First grade co-teachers Bethany and Danae used alternative teaching to deliver Tier 2 and 3 reading interventions. They used fall universal screening data to select students requiring Tier 2 interventions in addition to regular guided reading instruction. One teacher used explicit instruction for teaching letter sounds and sounding out regular consonant-vowel-consonant words with a small group while the other teacher conducted regular reading instruction with the remainder of the class. They frequently alternated roles, so both could get to know each student's individual needs, enhancing later discussion of observations and progress-monitoring data.

**Additional Before-Instruction Assessments**

Before an instructional unit, co-teachers can assess what students already know by using the What I Know (K) and What I Want to Know (W) columns of a KWL chart (Ogle, 1989), class discussions, pretests, or anticipation guides (a series of statements to which students respond prior to reading a selection; Connor, 2003). Co-teachers have more options for using these tools than if they taught by themselves. For example, elementary teachers Wanda and Heather often each lead discussion of the K and W steps with half the class (parallel teaching) to encourage more student participation. On other occasions, Wanda asks the large group probing questions about an upcoming unit while Heath gathers data regarding which students respond as well as the accuracy and quality of their statements (one teach/one observe).

Pretests or anticipation guides also serve as before-instruction assessments and can be used effectively in co-taught classrooms. Wanda and Heather can support students individually or in small groups by (a) using video, computer, and audio text supplements; (b) highlighting important statements; (c) allowing students to work with a partner or group; (d) allowing additional time for completion; and (e) adjusting the difficulty level through content, format, or reading level. Even with these adaptations, as much as possible, pretests and anticipation guides should be similar in length and print size as not to embarrass students (Kozen, Murray, & Windell, 2006).

Another group of CBA occurs as students enter the room. Warm-ups, admit slips, sponges, quick writes, or bell ringers—all of these are 2- to 5-minute activities that co-teachers can display on the overhead or write on the board and have students complete immediately upon entering the classroom, with the purpose of reviewing the previous day’s lesson or gathering background knowledge before beginning a new lesson. Other assessments assess content knowledge or what students know. Admit slips are written responses to open-ended questions/statements used as quick writes prior to the beginning of the lesson such as Write one (or more) things that you already know about [topic] or Write one question that you still have about the activity that we completed yesterday. These brief assessments help co-teachers establish content for re-teaching, activate prior knowledge, and set a purpose for learning—practices that improve learning outcomes, particularly for students with disabilities (Carr & Thompson, 1996). Based on results of their bell-ringers, Wanda and Heather provided parallel teaching the following day. They divided the class into two heterogeneous groups to demonstrate a key concept prior to the main lesson. Discussing the demonstration in smaller groups allowed more students to express their thoughts and build their background knowledge in the same timeframe, and the teachers were better able to evaluate students’ prior knowledge.

**Purposeful Assessment During Instruction**

During instruction, co-teachers can use numerous activities to determine whether their instruction is effective and whether students are acquiring critical skills or content. For example, during one teach/one assist, Arlo conducts ongoing on-the-spot “over-the-shoulder” student observations as Myrna leads instruction. Julia and Joe discovered that with parallel or station teaching, they could interact with students more closely, view written assignments, respond to student questions, and reteach as needed. As Scruggs et al. (2007) noted, students respond positively to co-taught classes in part because they have access to support when they need it.

In a co-taught classroom, not only can teachers respond to questions more promptly, but they also can meet students’ needs by adjusting the prompt (i.e., type of question) and response mode (e.g., verbal versus written). For example, during a quiz, Arlo noticed that several students did not understand the wording on a problem. He verbally restated the question, which allowed students to successfully complete the problem. Based on additional observations, Myrna and Arlo decided to teach students about the different question types (Raphael & Au, 2005) that often appear on chapter and standardized tests.

**Assessments to Promote Engagement**

There are several ways co-teachers can promote active engagement to help students integrate new knowledge with background knowledge and construct new or revise existing understandings (Anderson, Wang, & Gaffney, 2006). For example, while reviewing phonemes, Stephanie and Evedar frequently ask questions for all students to respond in unison. Unison responses encourage all students to actively practice many skills throughout an instructional period, provide
teachers with frequent information about each student’s progress, maintain students’ attention, and significantly accelerate student progress (Carnine, Silbert, Kame’enui, & Tarver, 2010).

Similarly, Julia and Joe often use dry-erase boards for students to display math responses. Many students are willing to use a dry-erase board rather than paper and pencil because of the ease with which they can change or erase their answers (Clare, 1996). Further, due to their flexibility, dry-erase boards can be used many times throughout a lesson (Clare, 1996) and replace worksheet or workbook materials, saving money and paper.

Students in Stephanie and Eveard’s class like using response cards. They display the card that represents their self-assessed understanding of the lesson (i.e., red = stop, I’m lost; yellow = I need a little clarification; green = I understand everything). Students can also use the cards to indicate if a statement expressed by the teacher is true (green) or false (red). Response cards improve learners’ classroom engagement, the amount they learn, and the amount they retain (Christie & Schuster, 2003). Further, some learners prefer response cards to hand-raising (Christie & Schuster, 2003). In all of these situations, the assisting co-teacher can observe and document student responses.

In classrooms with computer/projectors or interactive whiteboards, co-teachers can use clickers or personal response systems (PRS) to assess students’ understanding during the lesson (Barnes, 2008). With PRS, teachers embed multiple-choice or true-false questions into the lesson PowerPoint using specialized computer software. When the question slide appears, students respond anonymously using their personal remote control unit (i.e., clicker). After all students have responded, the software generates a bar or line graph depicting the group’s responses, which allows teachers to decide if they should advance to the next skill or reteach the concept. Kay, LeSage, and Knaack (2010) found that secondary students using PRS increased their
level of engagement. Further, teachers effectively collected and used formative assessment data, which students appreciated.

**Purposeful Assessment After Instruction**

Co-teachers can use formative or summative assessments after instruction. For example, student “exit slips” provide valuable formative data. One to 5 minutes prior to dismissal, students create an exit slip by writing a response to a teacher-created prompt such as: (a) summarize the main idea and one detail from (chapter just discussed); (b) list the four steps of (the water cycle, photosynthesis, finding the perimeter of a circle from its radius); or (c) write one thing your project group accomplished today, one question you have, and the next step your group will take. Additionally, students can reread their admit slip (written before instruction) and revise it; creating a “First I thought . . . Now I know . . .” response. Instructional systems, such as self-regulated strategy development (Harris, Santangelo, & Graham, 2008), that incorporate strategies along with goal-setting prior to instruction and specific feedback to students have produced large positive effects for students with disabilities. Together, co-teachers may have more opportunities to develop and assess student responses from admit and exit slips, provide specific feedback to students, and help students act and monitor individualized goals.

**Summative Assessments**

Co-teachers also can decide which summative assessments to use after instruction, such as portfolios, checklists, rating scales, products or projects evaluated with rubrics, quizzes, tests, and report-card grades. These assessments show the cumulative progress of a student over a defined unit of study or period of time. Having two professionals develop, discuss, and review these helps ensure that they reflect students’ developmental levels, accommodations or modifications, and assessment best practices.

**Assessing Student Products**

Co-teachers can share portfolio responsibilities by conferencing with students individually or in small groups, helping students set reasonable goals and choose appropriate artifacts, following up with students who were absent or are not maintaining their portfolios, and helping students plan their student-led parent-teacher conference or IEP meeting. Alternate teaching provides one teacher an opportunity to conference with students while the other continues with the day’s lesson.

In addition to portfolios, students can use rubrics, checklists, and rating scales as self-assessments to guide the preparation of their work. Co-teachers can differentiate these products by adjusting outcomes, simplifying wording, individualizing overall point totals and point emphasis, and providing examples and nonexamples. Some students may need these tools read or explained more thoroughly, which can occur more easily with two teachers. Further, co-teachers can team teach to model these and other self-assessments for the whole class.

**Grading Student Products**

Finally, co-teachers can collaborate when developing and grading projects, quizzes, and tests, and calculating final grades. Co-teachers can review projects, assignments, and assessments for appropriate reading and language levels, format, clarity of directions, difficulty level, and other best practices in test development such as rewriting multiple-choice questions as direct questions, placing fill-in-the-blanks at the end of sentences, limiting matching sections to no more than 10 items, and ensuring that true/false questions assess only one concept (Condeman & Koroglanian, 2002).

A student with a disability in co-taught classrooms may have an individualized grading system which bases part of his or her assignment or report-card grade on progress toward IEP objectives, improvement over past performances, prioritized content and assignments, effort, and/or modified weights and scales (Silva, Munk, & Bursuck, 2005). Both co-teachers must be aware of how all students will be graded and reasons for changes in the grading system, which need to be discussed, agreed upon, and documented by the IEP team and administrator.

**Final Thoughts**

Co-teaching provides opportunities for students with disabilities to interact with a rigorous curriculum and receive quality instruction from two certified teachers. However, for students to receive the maximum benefits of a co-taught classroom and for co-teachers to maintain parity, both teachers must be actively involved in co-planning, co-instructing, and co-assessing. Co-assessing, a neglected component in the professional literature, provides a unique opportunity for partners to discuss assessment and grading philosophies, share assessment responsibilities, and collaborate on ways to differentiate assessments. Special educators must be willing to share these responsibilities and ensure that students with disabilities receive necessary assessment accommodations and grading adaptations directed by their IEPs.

After discussing their philosophy and approach to assessment, co-teachers can identify the assessments they will use before, during, and after instruction. Before-instruction assessments may include reviewing recent district or state test scores or gathering data from curriculum-based assessments, K-W-L charts, class discussions, pretests, or anticipation guides. During-instruction assessments may include on-the-spot (over-the-shoulder) student checks, union responses, whiteboards, response cards, or PRS; after-instruction assessments may include exit slips, projects, portfolios, self-assessments, homework, quizzes, tests, and report-card grades.

Regardless of the assessment, co-teachers who are deliberate and plan can ensure that their assessment practices utilize the skills and strengths of both teachers, are different and perhaps more frequent than if they were teaching a class on their own, and best practices in assessment, and most important, accurately assess what stu-
students have learned. These practices help co-teachers like Stephanie and Evarid, Julia and Joe, and Myrna and Arlo realize the promise and potential of co-assessing.

References


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