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# Individualizing Literacy Instruction in Co-Taught Classrooms Through a Station Teaching Model

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#### **Abstract**

The Project CALI (Content Area Literacy Instruction) instructional framework is designed to enhance reading comprehension for all students, those with disabilities as well as their typically developing peers, in inclusive co-taught middle school content-area classrooms. For students with and at-risk for disabilities, even well-designed, research-based, and whole-class instruction often leads to inadequate improvement in reading comprehension and thus learning of content material. In CALI, teachers use student data to determine which students need more support and targeted, individualized instruction, and by contrast, which students may benefit from opportunities to extend their learning with more challenging texts and student-managed work. This article provides guidance for designing and implementing customizable lessons using station-teaching to individualize instruction. The Project CALI student support model is the final instructional piece of the CALI instructional framework.

#### **Keywords**

reading comprehension, content area instruction, individualization, station teaching, co-teaching

Middle school co-teachers have an exciting but daunting objective, meeting the reading instructional needs of all adolescent learners in their classrooms. The complementary articles in this special issue provide information on the foundational comprehension practices for teaching adolescents across co-taught content areas that the whole-class Project CALI (Content Area Literacy Instruction) instructional framework includes, for example, providing world and word knowledge (i.e., background and vocabulary knowledge) and getting the gist (i.e., generating main idea statements) of a text. However, these instructional practices are not differentiated, meaning that students with learning disabilities (LD) may not receive the intensive comprehension support they require from the whole-class CALI instructional framework practices alone, and students with higher achievement may not have important opportunities to extend their learning through self-managed structured tasks (Connor et al., 2009).

Some students with LD require more individualized or differentiated reading comprehension instruction that addresses comprehension skills that are essential to their success (Connor & Morrison, 2016; Kamil et al., 2008; Shanahan & Shanahan, 2008; Tomlinson et al., 2003) and

which are more intensive than teachers generally provide in middle school content-area classrooms (Cook & Rao, 2018; Edmonds et al., 2009). Data suggest that providing students with support at their instructional level leads to higher achievement (Connor & Morrison, 2016) and greater student motivation, task persistence, and attitudes toward learning (Subban, 2006) compared with typical wholegroup instruction.

However, implementing differentiated instruction may be difficult, particularly in middle schools where co-teachers face multiple obstacles. They often have large classes, inadequate co-planning time (Friend, 2008; Organisation for Economic Co-Operation and Development [OECD], 2014; Schumm & Vaughn, 1995; Tomlinson et al., 1998), and inadequate professional development (PD) and resources to differentiate effectively (Dixon et al., 2014;

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OECD, 2019; Santangelo & Tomlinson, 2012). In addition, data suggest that general education content-area teachers are hesitant to differentiate in inclusive classrooms. They are sometimes unsure how to differentiate in general (Dixon et al., 2014) especially for reading comprehension (Cantrell et al., 2008). Frequently, they are even less sure how to support the reading-comprehension needs of students with LD (Gibson, 2013; Schumm & Vaughn, 1995). A related concern is that differentiation will create behavior problems general educators feel unprepared to address (e.g., when moving around the room; Subban, 2006; Wexler et al., 2017). Some hesitation is due to their focus on meeting ambitious content-area standards evaluated on high-stakes tests (Aftab, 2015).

These concerns do not reflect a general unwillingness from content-area teachers to consider differentiation focused on content-area literacy in their co-taught classrooms. Rather, they indicate that a system to provide differentiation must address the reasons teachers are reluctant to differentiate. In addition, having a co-teacher provides a unique opportunity to implement station-teaching support lessons which can assist teachers in providing differentiated lessons by allowing for specialized instruction within smaller, separate groups. The student support model constructed for Project CALI addresses many of these concerns through (a) structured procedures which co-teachers could learn easily and implement feasibly, (b) a simple rotation procedure, (c) a method for regularly identifying needs and grouping students (Johnson & McMaster, 2013), and (d) specific instructional roles for both teachers in the model (Cook & Friend, 1995). This article describes the differentiated lessons and activities in the student support model, which were designed to complement those practices in the whole-class CALI instructional framework lessons, and the rotational structure of implementation. The goal is that this description can provide co-teachers with knowledge to begin thinking how they can implement student support themselves.

#### **Student Support Rotations**

The CALI student support model involves the use of a station teaching approach (Cook & Friend, 1995; Friend, 2015) in which students are divided into three groups based on need. Students rotate among three stations, with the content-area teacher and special education teacher each at one station and the students working independently or with partners at the third. One of the many benefits of this approach is that it takes advantage of having two teachers in the classroom to lower the student-to-teacher ratio (Cook & Friend, 1995). The whole-class CALI instructional framework practices, described in the associated articles in this special issue, addressed the common problem of the special education co-teacher's relegation to a subordinate role (Scruggs et al., 2007; Wexler et al., 2018); in student

support, the co-teacher's role is also equally active (Cook & Friend, 1995), capitalizing on both teachers' expertise and allowing targeted literacy instruction to occur within smaller groups simultaneously (Klingner et al., 2015; Vaughn et al., 2001).

Student support is designed to take place within 1 or 2 days of the whole-class CALI associate gist lesson (see Shelton et al., 2021 for a description of the peer-mediated main idea strategy known as associate gist). The activities at each station align with different CALI instructional framework components (e.g., word knowledge or getting the gist), and students in the three groups (i.e., review, practice, extend) complete different activities based on literacy need, as measured by how well they were able to identify the main idea of each section of the text used in the previous whole-class CALI lesson, and whether they need continued support to comprehend it or are ready for a more challenging text (see Wexler et al., 2021 for guidance on selecting text). The reading comprehension activities emphasize repeated opportunities to practice and to generalize skills and strategies (Klingner et al., 2015; The National Joint Committee on Learning Disabilities [NJCLD], 2008). Co-teachers use flexible grouping (i.e., changing dynamically as needed, as students may have more or less difficulty with individual texts and therefore may need more or less comprehension support) to assure students receive instruction that maximizes comprehension of texts or thematic ideas (Connor & Morrison, 2016). Figure 1 provides an overview of station activities.

The CALI instructional framework contains suggested co-teaching roles and responsibilities for each instructional component including student support, as clearly defining roles and responsibilities improves co-teaching efficiency and the co-teaching relationship (Friend, 2008, 2015; Solis et al., 2012). At the same time, the student support model builds upon the whole-class CALI instructional framework by providing co-teachers a systematic approach for planning and implementing differentiated instruction for all students (Johnson & McMaster, 2013). These components increase feasibility and teacher self-efficacy, which are both critical to ensure implementation of differentiated lessons (Dixon et al., 2014).

To prepare for the implementation of student support, co-teachers should work together to complete each of the planning steps in the following outline. The CALI instructional framework includes three recommended co-planning techniques for use across all components: (a) work together, (b) divide and conquer, and (c) take the lead. Figure 2 provides a template for proactively dividing tasks between coteachers, ensuring all steps are completed and all materials are prepared. Co-teachers can use the checklist to guide them as they negotiate task assignments (or decide to share them) based on their own expertise each time they plan for a student support lesson.

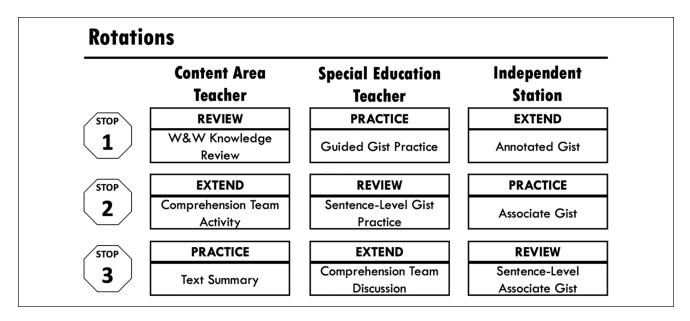


Figure 1. Rotations guide with teacher roles and group activities.

TASK	CAT	SET	вотн
Divide class into groups			
Review Group:		•	•
Assign Associates			
Edit W&W (if necessary) to change concept/words			
Prepare materials: write PQ on log and copy with text			
Practice Group:			
Assign Associates			
Find new CALI text (if necessary) and write PQ			
Prepare materials: write PQ on log and copy with text			
Extend Group:			
Assign Comprehension Team roles			
Find complex text			
Prepare materials: copy text and logs; write student names			

Figure 2. Planning guide for co-teachers.

Note. CALI = Content Area Literacy Instruction, CAT = content-area teacher, SET = special education teacher, W&W = world & word knowledge, PQ = purpose question.

#### **Group Structure**

The names of the three groups in the student support model (i.e., review, practice, and extend) are aligned with the goals of the group activities and their use is encouraged. Although some teachers may be concerned with identifying students by skill level within an inclusive classroom,

there is clear evidence for the benefits of leveled support, (Subban, 2006; Tomlinson et al., 2003) and recognizing diversity within the classroom is endorsed as one of the guiding philosophies of the universal design for learning (UDL) framework (Hall et al., 2003). Teachers should be transparent about the purpose of student support, which is to provide students with the type of instruction they need,

whether that means support to better comprehend the text or a new text to extend their thinking. This support is also designed to be dynamic and flexible, providing students both additional support and enrichment when they need it. Teachers are also encouraged to frame this discussion within the larger context of self-advocacy and self-awareness. Students should be encouraged to seek out the help they need (Scruggs et al., 2007; Subban, 2006).

## Steps to Implementing Student Support Rotations

#### Step 1: Whole-Class Associate Gist Lesson

Once students and teachers are familiar and fluent with associate gist, teachers can incorporate student support rotations into their menu of CALI lessons, using data collected from the associate gist lesson to determine group placement for individual students. The first step in implementing the student support model is to complete a whole-class associate gist lesson, including world and word knowledge, and getting the gist with an associate. Toward the end of this lesson, teachers ask students to separate from their partners and generate a gist statement for the final section of the text independently. If there is time in the lesson, students can also independently complete the text summary, a synthesis of their gist statements (see Shelton et al., 2021 for a complete discussion of text summary). In this way, each student's gist log (i.e., the worksheet on which students record gist statements and the text summary) acts as a formative assessment and provides most of the information teachers need to inform group placement, which is aligned with recommendations for instruction that is learner and knowledge centered (Cook & Rao, 2018; Tomlinson, 2005; Tomlinson et al., 2003). Text summaries also provide valuable information. Since the text summary answers the purpose question by synthesizing the gist statements, it is a strong indicator of how well the student understood the text, even with peer assistance (see Kearns et al., 2021 for a full discussion of text summary and purpose question). Teachers can compare associate work with individual work to see where there may still be gaps in understanding.

#### Step 2: Determine Groups for Student Support

Step 2A: Divide students into groups. Teachers can determine group placement by answering two questions after reviewing each student's gist log.

- 1. How much did the student struggle to understand and to finish the whole-class CALI text used in the associate gist lesson?
- 2. To better understand this text, would the student benefit from review of specific background knowledge and vocabulary or the gist strategy in general?

Using these questions as a guide, teachers determine the best placement for each student in one of the three groups: review, practice, and extend.

Review group placement. Students in the review group are those who experienced the greatest difficulty with concepts and text comprehension from the previous CALI whole-class lesson. These students may repeatedly struggle with getting the gist in general, especially when asked to complete this process alone and not with a peer partner, as in associate gist lessons. In answering the questions above, teachers notice these students

- Struggled with the entire text (e.g., struggled to get the main idea in several sections, or were unable to identify the most important information in the text) and did not finish generating gist statements for each section of text;
- 2. Would benefit from a review of background knowledge and vocabulary and from more structured practice generating gist statements.

**Practice group placement.** Students in the practice group are those who may have a general understanding of the text, but would benefit from revisiting it or from practicing getting the *gist* with a new CALI text. These students

- 1. Struggled with portions of the text; gist statements are complete but not entirely accurate;
- 2. Would benefit from more guided practice with generating gist statements.

Extend group placement. Students in the extend group are those who do not struggle with any sections of the text during the CALI instructional framework whole group lesson and whose gists suggest they are ready to learn more on their own. These students

- Successfully generated gist statements for all sections of the text and completed the text summary;
- Did well with the whole-class text and would benefit from the opportunity to work with a more challenging text.

Consider other data sources. Besides the gist statements and text summary from the associate gist lesson, other resources, such as standardized testing, diagnostic assessments, progress monitoring data or data from specialists, curricular assessments, or formative assessments that measure reading comprehension from other content areas, are useful tools for placement when teachers are unsure. Coteachers should also use their combined "teacher sense" about grouping decisions based on their overall perception of student need even if not aligned with data, practical considerations about the classroom environment (e.g., space),

and student dynamics (e.g., ability to work independently). These sources are combined to create groups after each whole-class associate gist lesson, so group membership is dynamic. Students, regardless of disability status, could be in any group and might change for each text. The rationale for having very flexible criteria for grouping is that (a) the grouping decisions are low-stakes because groups will regularly change, and (b) this approach is sustainable because teachers can make data-based decisions quickly and without an extensive time investment.

Step 2B: Determine student pairs. Within the review and practice groups, students will have opportunities to work in pairs for some activities; teachers use data and teacher sense to create pairs in which one student is higher in ability than the other. To do this, teachers can rank-order students by ability, divide the list in half, and begin by pairing the highest-achieving student from the first half of list with the highest-achieving student from the second half. For a full description of creating associate pairs, see the procedure outlined in Shelton et al. (2021).

#### Step 3: Prepare Station Activities and Materials

Step 3A: Review station activities. Group activities at each station are discussed; refer again to Figure 1. See Figure 3 for a sample review group log; group logs serve as rotation guides for students, and students use them to complete activities at each station.

Overview of review group activities. Review group activities are designed to provide students with more intensive instruction in foundational evidence-based comprehension strategies for adolescent literacy (Kamil et al., 2008). Review group students work with the same text used during the previous whole-class associate gist lesson:

Station 1. The content-area teacher reviews the previous whole-class lesson, focusing on reviewing vocabulary word definitions and providing more examples of the word use, modeling where necessary (Beck et al., 2002; Boardman et al., 2008; Klingner et al., 2015). Students take notes in the word knowledge toolbox on their gist log so they have short definitions available when they read the text at the next station.

Station 2. The special education teacher provides modeling and instruction on a gist-related strategy called sentence-level gist that further scaffolds getting the gist (see Pollack et al., 2021 for a full discussion of this strategy). This permits the special education teacher to help students resolve pronoun references (i.e., anaphora) and make correct inferences (Boardman et al., 2008; Klingner et al., 2015). Students write responses on their review group logs.

Station 3. Students work in pairs using the same sentence-level gist strategy to get the gist of another section of text while the special education teacher provides monitoring and assistance.

Although Project CALI does not specifically address issues that arise from decoding difficulty, co-teachers can and should use their judgment to modify station activities for students in this group who require extra support. For example, at the first station, the content-area teacher may decide to provide multisyllabic word instruction, and at the second station, the special education teacher may read the section aloud to students before beginning instruction. At the final station, students who struggle with decoding could be paired with stronger readers within the group.

Overview of practice group activities. The instructional goal for this group is to practice and refine their summarization skills using the same get the gist strategy as in whole-class lessons but with more guided support (Gersten et al., 2001; Kamil et al., 2008); therefore, the text chosen for the practice group should be at the average instructional level of students in the class, which, since this is the middle group, should roughly coincide with the average level of students in this group. Practice group students may work with the same text used during the whole-class lesson or a new text at the same instructional level:

Station 1. The special education teacher supports practice group students in getting the gist of one section of text through modeling and guided practice. Students write on their group log at this and each of the next two stations

Station 2. Students work in pairs to write gist statements for the next section of text and begin writing the text summary while the content-area teacher monitors and provides additional support.

Station 3. Students work with the content-area teacher to make sure their gist statements have accurately answered the purpose question. This prompts a discussion about the text information that best answers the question (Kamil et al., 2008) and reinforces the use of text evidence.

Overview of extend group activities. Extend group activities are designed to encourage students to approach a text from multiple vantage points by asking and answering higher-level questions, modeling how skilled readers flexibly approach complex texts (Boardman et al., 2008; Gersten et al., 2001; Klingner et al., 2015). Extend group students work together as a comprehension team to read a more complex text which is thematically related to the original whole-class text and at the average instructional level for students in this group. This might include a focus on texts that are more discipline-specific (e.g., primary

	w Git	oup Name	:		
	Word Knowledge Toolbox				
	Synonym (a word that means the same thing)				
Work with the teacher					
		Purp	ose Question		
			Section 2		
	Sentence	Who/What	Section 2  Most Important Information		
	1		T		
STOP 2	2		T		
STOP 2	2 3		T		
	1 2 3 4		T		
Work	1 2 3 4 5		T		
Work with the	1 2 3 4 5 6		T		
Work	1 2 3 4 5 6 7 7		T		
Work with the	1 2 3 4 5 6	Who/What	T		

Figure 3. Side I of group log for review group.

sources in social studies; see Wexler et al., 2021 for more information on selecting texts and for helpful resources in doing so):

Station 1. The familiar get the gist strategy is self-directed; students read the text on their own, dividing it into cohesive sections, generating gist statements using an annotation strategy in the margins.

Station 2. Students work independently to apply separate strategies to the text. Co-teachers choose from a menu of pre-designed CALI-style independent activities, taking care to assign students different activities if they are placed in the extend group during subsequent student support lessons so students gain experience using multiple strategies. See Figure 4 for a sample extend group activity, question development, through

### **Extend Group**

Student:	

#### **Question Development**

- 1. Begin reading the text. Annotate the text as you read. When the topic changes, write a Gist Statement and then keep reading. At the end, you should have written at least two Gist Statements.
- Choose 3 pieces of important information from your Gist Statements. These should be pieces of information that you would want any reader of this text to be sure they understood. Write 3 questions that any reader of this text should be able to answer based on this information.

	Criteria	Question
1	☐ Question starts with "What" ☐ Answer should be easily found in the text	Example: What area did the Persian Empire cover?
2	☐ Question starts with "How" ☐ Answer should require the reader to make a connection to prior learning	Example: How did King Cyrus' treatment of captives differ from other Kings you've learned about?
3	☐ Question starts with "Why do you think" ☐ Answer should require the reader to make an inference	Example: Why do you think King Cyrus charged taxes to the people he conquered but not to the Persians?

Figure 4. Sample extend group activity.

which the student generates and poses to the group questions to check for understanding (Boardman et al., 2008). Other strategies suggested for self-directed work, including (a) prior learning connection, (b) evidence collection, (c) key idea research, and (d) vocabulary inquiry, placing the students in charge of identifying, researching, and teaching background knowledge and vocabulary necessary for comprehension.

Station 3. Students work cooperatively to discuss and synthesize their understanding of the text (i.e., comprehension team) while the special education teacher monitors their discussion.

Step 3B: Choose texts. As described, co-teachers need to find a new text for the extend group and potentially for the practice group, depending on how well these students did with the whole-class text. Most co-teachers preview several different texts for the whole-class associate gist lesson. One co-planning suggestion is to search for student support texts at the same time to save the extra step later.

Step 3C: Prepare station materials. Besides copies of texts, each group needs copies of the appropriate group log on which they take their notes. Refer again to Figure 2, which provides a planning tool for co-teachers, and Figures 3 and 4, which provide examples of the different activities for each group.

Step 3D: Preview support rotation structure. To prepare students for their first student support lesson, co-teachers should introduce students to the grouping structure and its rationale. They should also review the activities for each group as students may not stay in the same group for all student support lessons, and behavior expectations for rotations by having them practice moving quickly and quietly between stations.

#### Step 4: Implement Support Rotations

On the day of student support rotations, teachers should organize desks or tables into three groups. Students start at their designated first station and rotate when teachers signal. Teachers should allow for several minutes to begin plus a minute for each transition when deciding how long to keep students at each station. Students get their materials at their first station and carry them to each subsequent station. Some teachers prefer to move themselves, especially useful in cramped classrooms or for classes that typically have long transition times.

#### Summary

In classrooms with wide variation in student reading ability, differentiation of instruction (Kamil et al., 2008) is necessary to address the needs of diverse learners (Connor et al.,

2009; Cook & Rao, 2018; Tomlinson et al., 2003). Teachers need methods of individualization which provide specialized support (Cook & Rao, 2018; NJCLD, 2008), are feasible to implement (Tomlinson, 2005), allow for flexible grouping (Hall et al., 2003), and retain fidelity to the evidence-based practices (Cook & Rao, 2018; Johnson & McMaster, 2013). The Project CALI student support model provides an efficient, feasible, and predicable set of routines which allow teachers to proactively individualize instruction using student data.

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