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Designing and Delivering Learning Center Instruction

MARGARET E. KING-SEARS

Educators are challenged to provide instruction for learners with diverse needs in general and special education settings. Learning centers are one organizational method that can be used to provide students with small-group instruction, practice and review activities, and increased active engagement in learning. Educators must be organized and focused to implement learning centers. In this article, the author explores basic questions and suggestions about how to design and deliver learning center activities.

Ask any teacher—there is never enough time to teach well all the content and curriculum that they think needs to be taught during the school year. Ask any student—there are always classroom tasks and activities where students feel they already know the content and they are ready to move on (“I’m bored”) *or* where they do not understand the content but the instruction moves on (“I’m lost”). For example, 49% of the high school students with learning disabilities who were surveyed about various aspects of their school programs found a particular class or classes boring, and 18% found the schoolwork too hard or boring (Kortering & Braziel, 2002). When these students

were asked about changes that would help them stay in school or to give examples of what teachers could do to help them learn, their responses included

- make things more exciting;
- make boring classes more fun;
- provide more hands-on activities;
- provide more individualized help responsive to specific learning needs;
- use more experiments rather than bookwork so much; and
- explain things better, break it down for students, and teach the student rather than the book.

Teachers usually are aware that some students need more time to learn and practice new content, whereas others are ready to apply the new content. But often teachers do not feel they have the time to do something about it or are not sure of what to do. Swanson (1999) noted that regardless of the general model of instruction used by teachers, several specific instructional components can be particularly powerful. A few of these components are as follows:

- practice and review,
- control difficulty or processing demands of a task,
- conduct small-group instruction to increase student/teacher interaction, and
- dialogue with students about process- and content-related aspects of the tasks.

The dilemma for teachers is how to fit in these instructional components (e.g., practice opportunities) when confronted with such a wide range of learning rates and levels within one classroom setting *and* limited minutes for instruction.

One way for teachers to effectively respond to such diversity in the classroom is to design and implement learning centers that provide instructional extensions for all types of learners. Simplified, there are four groupings of students in diverse classrooms:

- learners who “got” the content and are ready to move on to much higher levels of the content;
- learners for whom the presentation, pace, and practice that the teacher is using is “just right”;
- learners who need a little bit more practice with the new content; and
- learners who need a lot more practice with the new content.

Interestingly, the four groupings of students can characterize either a self-contained special education setting or a general education setting where students with disabilities are receiving content instruction. Consequently, whether the number of students in a classroom is 4, 12, 25, or 32, the idea of diversifying instruction and practice so that each student is appropriately challenged is an issue for most—if not all—general and special educators. Regardless of how many adults are in the classroom (e.g., paraeducators, coteachers), instructional arrangements that go beyond teacher-directed or teacher-facilitated instruction are necessary. To that end, learning centers can be designed to individualize practice for the varied groups of learners in any given educational setting.

Learning centers comprise activities designed for individuals or small groups of students. The centers themselves can be physical placements in the classroom that contain the materials and directions (and, sometimes, corresponding monitoring or assessment tools) for students to

complete individualized activities. Figure 1 depicts an instructional arrangement in a general education classroom that features large-group instruction as well as five learning centers. Individualized learning center activities are designed at the appropriate challenge level for each student. Individualized activities do not necessarily mean that teachers are designing separate activities for each learner. In fact, organized learning center activities can provide differentiation for students using the same or similar activities—but with individual students focusing on specific content that is appropriately challenging for them. Well-designed learning centers can provide students with diverse learning needs opportunities to

- be more actively engaged in learning,
- practice new skills,
- increase proficiency in skills acquired, and
- apply knowledge and skills to new scenarios or situations.

Educators must be highly organized to differentiate instruction and practice opportunities for learners with diverse learning needs. When using learning centers as a differentiation design, educators must expand their skills beyond delivering instruction via whole-group formats to designing activities whereby students can simultaneously be engaged in meaningful tasks that they can accomplish independently. To design such activities, educators must first have a firm grasp on what they want their students to learn (i.e., learning outcomes), how students can practice information taught, and what the students’ learning levels are. Without having clear direction on these aspects of instruction (e.g., “Where are we going? Who needs to practice what? What kinds of activities enable students to meaningfully practice and/or apply information learned?”), educators may find themselves overwhelmed with the prospect of designing learning centers responsive to students’ needs.

This article will answer five questions about organizing for effective learning centers:

Question 1: How do learning centers “fit” into instruction?

Question 2: Where do teachers start when designing learning centers?

Question 3: What kind of activities can occur at learning centers?

Question 4: What do students need to know about using learning centers?

Question 5: What do teachers do when students are at learning centers?

Responses to these questions will include some guidelines and examples for designing and using learning centers to optimize differentiation opportunities in general and special education settings. While organizing to de-

Figure 1. General education classroom arrangement with learning centers for differentiation.

velop learning center activities sounds simplistic, in reality, it takes a high degree of knowledge and skill for educators to ensure all students are learning at the level that is appropriately challenging for them.

Question 1: **How Do Learning Centers Fit Into Instruction?**

One orientation for instruction is explicit, or direct, instruction. Teachers start by presenting new content to students (the demonstration or presentation stage—students know little about the new content), followed by guided practice and independent practice. In guided practice, students initially practice the new content and move to an 80% proficiency level. Remember that even after the teacher has demonstrated the new content in multiple ways, students need multiple guided practice opportunities to increase their knowledge or skill with the new content. In independent practice, students practice material with which they are gaining an 80% to 100% proficiency level. For teachers who use explicit instruction, learning center activities fit well *after* sufficient demonstration or presentation of new content (see Table 1 for a description of how learning centers fit with explicit instruction).

Think of learning centers as activities and tasks that students can do without teachers needing to be there to

provide instruction. If teachers are not present, it stands to reason that the content within a learning center should be designed so that students can individually and proficiently practice on their own. For most learning center activities, the tasks students complete are guided or independent practice tasks. However, the tasks for students during guided practice should be designed so that it is possible for students to self-instruct and/or follow printed directions or checklists, given that students are still within an acquisition phase of instruction.

An Example for Teachers as Learners

Imagine that you are the learner, and that the teacher has just presented new content about identifying the terms and functions for all parts of an automobile engine. The teacher has presented this content using terminology like *battery*, *dipsticks* (one for the engine oil; another for the automatic transmission), *clutch/brake system fluid reservoir*, *fuse box*, and *power steering reservoir*. During the presentation lessons (because the teacher has presented the lesson multiple ways and more than once), the teacher has used pictures, terms, real car parts, and color-coded systems that help learners remember the new content. Now, students (i.e., you) move to a learning center activity to initially practice the new content with guided practice activities. You may be able to accurately identify some terms and tell one part's function, but if you were tested now, you'd score about 20%. You have, however, had suf-

Table 1. Explicit Instruction Sequence Matched to Learning Center Activities

Explicit instruction sequence	Corresponding learning center activities
Demonstration or presentation of new content	Teacher-directed presentation and demonstration of new content occurs in multiple ways across several lessons. Ensure presentation and demonstration is sufficient so that students can experience initial success when they are gaining more proficiency during guided practice activities. "Set up" for learning center activities to follow demonstration.
Guided practice	Learning center activities designed to provide initial practice for students on new content that the teacher has recently demonstrated for them. In guided practice, students are acquiring the new content (moving to 80% proficiency), so activities that provide more cues and prompts are necessary.
Independent practice	Learning center activities designed to provide independent practice are appropriate once students have acquired about 80% mastery of the new content and are working toward 100% mastery. Fewer cues and prompts are required for these activities. Consider that these activities can both mirror quiz content and/or provide for novel applications of the content.

ficient demonstrations from the teacher that you are ready to practice the information to increase your percentage. Guided practice activities that require independent and accurate identification of all the engine parts and corresponding functions are inappropriate; you need more practice before you are at this level. So appropriate guided practice activities need to have some support built into them, such as the following:

- using the color-coded materials, which can help learners match the terms to engine parts;
- viewing an engine with parts and functions identified on the parts, so that accurate studying can occur; and
- focusing first on identifying parts accurately by term, then focusing on the function of each part using study cards or flash cards.

The same materials can be used for independent practice activities, except now the learner has reached a more proficient stage of acquisition in that the learner is moving from acquiring an accuracy level of 20% to 80% (guided practice) to 80% to 100% (independent practice). During independent practice activities, learners might not need to use color coding (after all, when you lift the hood of an automobile, few of those parts are color coded), and the expectation is that the cues are no longer necessary. An appropriate independent practice learning center activity might be that the learners have a small model of an automobile engine with a numbering system on the parts, and the learners have to complete a worksheet that has two columns: identify the term and tell the function of the term.

Guided Practice to Independent Practice

The examples using automobile engine parts and their corresponding functions can orient teachers to the mind-

set needed for when to use learning center activities: after demonstration and presentation of new content has occurred. Moreover, much thought needs to go into designing learning center activities: Guided practice activities must be designed with more prompts and cues, whereas independent practice activities might be designed using the same materials but with fewer or no prompts and cues. Refer to Figure 2 for some quick tips for designing learning centers.

Consider, also, that learners in a single classroom setting are at varying stages of learning the new content. Consequently, for some learners who are ready to complete independent practice activities, that level of practice can occur at a learning center concurrent with other learners who still need more guided practice activities. Thus, learning center activities can provide differentiated practice tasks; all learners do not need to be at the same stage of instruction. Differentiation occurs through the level and types of tasks that teachers design for students to use at the learning centers (see Figure 3).

An Example of Math Learning Centers

An example of appropriate learning center content might be that a mathematics teacher has already presented instruction on the Pythagorean theorem, and the learning center content provides opportunities for students to practice the formula and draw designs that match specified measurements. For students completing guided practice activities (i.e., students acquiring up to 80% proficiency with the task), the activities might be more directed in nature, as these students are still within an acquisition stage of learning the content. In this example, students could be completing guided practice activities where the Pythagorean theorem ($a^2 + b^2 = c^2$) is provided for them to use, so they do not have to know it from memory yet. The diagrams students complete could be

- **How many centers should I use?**
 - Begin with fewer (e.g., two or three), and add more after you and your students are comfortable and proficient with managing a few.
- **What content should I focus on?**
 - Focus on content you have already taught and content you are currently teaching. Learning center activities provide opportunities for students to practice, explore, build on, and review content.
- **How do I avoid setting up new centers every week?**
 - Establish generic learning centers (e.g., writing center, listening center), with the content and level of the center changing from student to student, group to group, and week to week. You can then focus on differentiating what students do at centers across the day(s) or week(s).
- **How do I ensure students know what to do at learning centers?**
 - Establish procedures for centers and practice those procedures until you and students are clear about what to do, how to do it, how to check yourself, etc.
- **How do I monitor student progress?**
 - Consider using self-check and self-graphing items for centers that the students can review for themselves and the teacher can peruse later in the day or week.

Figure 2. Quick tips for learning centers.

more simplistic measurements so that students can focus on using the theorem without also having to focus on using a variety of measurement systems. For example, begin practice using measurements that focus on graph paper boxes and then progress to using measurements like inches and centimeters. Color coding some key information or terms, like *right angle* and *hypotenuse*, might also be helpful for students during guided practice. Self-correcting materials, such as answer cards with diagrams and measurements, can also be beneficial during guided practice so that students can check problems after they are completed to ensure they are practicing the formula and drawing the diagrams accurately.

A Nonexample of Math Learning Centers

A nonexample of appropriate learning center content might be that the students are attempting to learn content that—for them—is complex and needs to be presented and demonstrated multiple times and multiple ways (i.e., demonstration) before they are able to practice it at a learning center (i.e., guided practice). Using the Pythag-

- **Outcome:** Students read or listen to information and then write or type responses to questions about the information.
- **Materials:** Books, books-on-tape, computer software for typing, worksheets with varied levels of questions about the information
- **Differentiation:**
 - Some students complete fill-in-the-blank responses.
 - Some students respond to a prompt and write an essay response.
 - Some students complete an outline as they are listening.

Figure 3. Examples of differentiated learning center activities.

orean theorem as a nonexample for a learning center activity may suffice for teachers reading this article. That is, teachers who would need a brief presentation to refamiliarize them with the theorem may benefit from explicit, repeated, and varied demonstrations of the formula ($a^2 + b^2 = c^2$), as well as a review of the terms used (e.g., *right triangle*, *hypotenuse*), prior to practicing the content in a learning center.

Most students with disabilities benefit from explicit instruction for new and complex content, and they need multiple opportunities to practice the new content (guided practice) prior to being able to use the new content independently and proficiently (independent practice). Teachers can optimize use of instructional minutes by designing learning centers that provide opportunities for students to engage in guided and independent practice stages of instruction. In fact, teachers may have numerous ideas of how much more they would like to do with students—if they had more time. Learning centers are one way to operationalize those ideas.

Question 2: Where Do Teachers Start When Designing Learning Centers?

The starting point for designing learning centers comes from what the students need more practice on. One very basic suggestion is for teachers to start by developing a

list of the content outcome and corresponding activities that they feel they do not have time to do right now. Intuitively, this is an odd starting point—if teachers had time to do these things, there would not be an issue! However, the list teachers develop by asking themselves “What content and types of practice do I already know students need but cannot find enough time to work on?” is an excellent way to figure out what the content outcomes and corresponding activities for learning centers can be. Possible responses include the following:

- Students with learning disabilities need more practice with new vocabulary and definitions. If I had more time, I’d provide that practice.
- Students who already know the vocabulary and definitions would benefit from applying them to content. If I had more time, I’d work with them on those applications.
- Students who almost know the vocabulary and definitions would benefit from a little bit more practice. If I had more time, I’d provide that practice.

Now, take those same statements and turn them into learning center activities:

- Students with learning disabilities need more practice with new vocabulary and definitions. They need to work at the Vocabulary Learning Center, where there are flash cards, language masters, illustrations, and worksheets with fill-in-the-blank prompts that they can use to increase their acquisition of and fluency with identifying the terms and stating the definitions.
- Students who already know the vocabulary and definitions would benefit from applying them to content. They need to work at the Writing Learning Center, where there are story starters, open-ended questions that require knowledge of vocabulary and definitions to respond, and extended applications of the vocabulary writing opportunities.
- Students who almost know the vocabulary and definitions would benefit from a little bit more practice. They need to work at the Peer Tutoring Learning Center so that they can partner with a peer and practice the content to increase their fluency.

Educators must be effective with designing and delivering instruction to one group of learners before they can develop learning center activities. If teachers consider that learning centers are minilessons, and that their goal is to design these lessons so that students can independently practice and apply information, it is easier to view learning centers as extensions of instruction. Learning center activities can be designed to fit the needs of multiple groups of students in the classroom.

Question 3: What Kind of Activities Can Occur at Learning Centers?

Activities at learning centers are as varied and diverse as the students and content outcomes themselves. For students who benefit from visual practice, illustrations or color-coded tasks are good matches. For students who benefit from auditory practice, verbal information on a cassette tape or step-by-step instructions accessed using an assistive technology device are helpful. Other students may benefit from a combination of visual and auditory practice, such as using language master cards that feature auditory and written information. Because students benefit from a variety of ways to take in, practice, and show what they know, the types of activities offered at learning centers should be expansive enough to provide for auditory, visual, and kinesthetic or multisensory practice of tasks.

Consider a primary-grade teacher who is instructing students on the short vowel sounds; the students in the general education classroom include students with mild disabilities, students at risk for school failure, students on grade level, and students who already know the short vowel sounds. By providing tasks at learning centers that are multisensory and focused on the short vowel sounds, the teacher is more likely to meet each student’s learning level need. For example, activities at one or more learning centers could be

- Practice tracing and saying the short vowel sounds on cards that have pictures of words associated with the corresponding sound and raised print to trace the letters.
- Follow the directions to write the correct vowel that goes with each picture in the folder.
- From a listing of pictures with short vowel sounds, select a specific number of words and write sentences using those words. Underline the words with short vowel sounds in the sentences.
- Using a magazine or newspaper (consider the cartoon page or an advertising page!), circle a specific number of words that contain short vowel sounds. Make sure you can say the words.
- Check yourself—look at a picture of a word with a short vowel sound, say the word, then say only the vowel sound, then listen to the correct vowel sound on the language master card that matches the picture. Were you correct?

Another key ingredient for learning center development is the variety of activities that can be used to promote learning. For example, if teachers use instructional games, audio books, illustrations of key concepts, or color coding of different types of information, any of these

Figure 4. Examples of learning center materials.

types of learning activities can be used in a learning center. In some respects, teachers can consider learning centers as activities that enable them to fit in varied activities that the class sessions do not seem to allow for. That is, if students know how to use the activities, teachers can set up the materials for the activity in a certain place in the classroom where students can access them at a predetermined time. Refer to Figure 4 for a variety of materials that can be used for learning center activities. Also consider that a learning center activity can merely be a file folder with activities inside; that is, the activity does not have to be located at another place in the classroom, and the materials can be worksheets that are located inside file folders.

Question 4: What Do Students Need to Know About Using Learning Centers?

Students need to know three things about using learning centers: what to do at the learning center, when to access the learning center, and how to transition to and from the learning center. Implicit in the use of learning centers is that the task or activity is benefiting the students’ learning; if teachers feel it is necessary to state those benefits explicitly for the students, that may be a fourth item students should know about using learning centers (e.g., “The focus for you during this activity is to learn all vo-

cabulary terms and definitions”). Some teachers may want to build a grading process into the work students complete at learning centers, while others may want to use students’ completion of learning center tasks as more formative in nature and informally note students’ performance (i.e., not for a grade). Teachers are advised to conduct instructional sessions on what students need to know about using learning centers so that students are clear about how to use those instructional minutes.

Teachers should ensure that students have been introduced to the varied activities during a presentation phase of instruction. Be explicit with students; let them know that they will be practicing the activity when they are at a learning center, so they are clear that further practice is required and will be available for them to access at the appropriate time. Most students benefit from having directions for what to do at learning centers, even when the teacher has provided directions previously. Checklists, pictures, audio directions, and other ways to show directions are helpful for increasing the independence with which students know what to do at learning centers (see Figure 5 for examples of directions at learning centers). If using learning centers is new to students and teachers, it is advisable to start with more direct tasks and less variety until students and teachers become more accustomed to the experience. Once classroom participants are more familiar with using learning centers, the types and numbers of activities at learning centers can be expanded.

Figure 5. Examples of directions for learning centers.

Determining valuable learning center activities that appropriately challenge each learner is essential. If students perceive that learning center tasks are “busy work” and that the activity will not promote their learning, they may not take the work seriously. Moreover, such perceptions from students (i.e., that the learning center work is not meaningful) may inadvertently both promote behavior issues and decrease the intended learning value. The best way to prevent such undesirable responses from students is to ensure they are provided with meaningful activities while at learning centers.

Meaningful activities can be developed from lessons teachers have already taught that students need more practice with. For example, consider that an English teacher’s presentation of new content consists of identifying which of the following terms fit characters in a novel: *protagonist*, *antagonist*, *static*, and/or *dynamic*. Some students will merely need a definition of the four terms and will then be ready to apply the information as they read the novel. Other students will need more practice with the terms before the terms stay with them and can be fluidly used while reading the novel. Among the latter students, some may have a disability while others may not. Regardless, to meet one of the English class competencies related to the four terms, the students need to understand, remember, and be able to apply the terms when they read any novel, not just the one the class is working on at the moment. The English teacher can make a decision: Is it worth the time and effort it will take now to ensure each student understands the four terms, or should the instruction proceed with the hope that all students will learn the terms and how to apply them as they progress through the novel? The fact is, some students will learn the terms and accurate applications of them as they progress through the novel. However, the fact is also that some students will continue to be lost with the terms and therefore would benefit from some brief and focused instruction on the terms right now.

The English teacher’s dilemma is clear—how to move forward with the novel and application of the terms to the characters in the novel while meeting the needs of all students. A learning center that provides practice for the four terms is *helpful* for some students (maybe those students who would have picked up the terms’ definitions and applications as they read the novel) and *necessary* for others (including those students with disabilities who might have continued to be lost with the terms and may also have a difficult time reading the novel).

When to access learning centers should also be clear to students. For example, if students can access the learning center after 15 minutes of presentation have occurred, but only one student at a time can be at a center, consider giving students numbers so that they know when it is their turn. If several students can use the learning center at the same time, be sure that there are sufficient materials for students to work individually during learning center activities (e.g., there are enough sets of flash cards, audio, and/or headphones available). Further, when students can work with each other at a learning center (e.g., peer tutoring), the noise level and manners of working together should be clear.

Teachers may decide to use learning centers in different ways on different days; as long as the directions are clear, the variety with which teachers use the learning centers to extend instructional time on-task can be maximized (see Figure 6 for examples of how learning centers can occur concurrently). As noted, learning centers can run more smoothly if used in one way initially, with the ways and times that students access learning centers expanded later on.

Learning Center Rotations for Language Arts

Language/literature study...
Read aloud...
Silent reading...
Journal writing...
Composing...
Small group instruction...

Learning Center Rotations for Social Studies

Small group instruction with the teacher...
Read or listen to chapter 7...
Practice with a peer the vocabulary terms and definitions...
Fill out the timeline about...
Compare and contrast...
Watch video about...

Learning Center Rotations for Mathematics

Small group instruction with the teacher...
Draw pictures to represent the word problems...
Practice with a peer the math facts...
Describe in writing how you got the answer to...
Use the newspaper advertisement to determine...
Arrange the objects to show the fractional parts on each flash card...

Figure 6. Examples of learning center rotations and activities for language arts, social studies, and math.

Transitioning to learning centers—whether one student at a time, small groups of students all at once, or the whole class moving to different learning centers simultaneously—must be clear and practiced prior to actually using the learning centers. Consider the time investment in teaching transitioning to learning centers to be time spent initially so that time later is not lost to dealing with problems or behavior issues. Auditory or visual cues can signal the students when it is time to move to or from a learning center:

- “Stop and listen. All eyes on me. It is now time for you to complete the problem or activity you are working on at the learning center. You have 1 minute to finish and return to your seat.”
- Set a timer for a specified length of time (e.g., 5 minutes, 15 minutes). When the timer sounds, that is an

auditory cue for the students to finish what they are working on and get ready to move back to their desks—or to the next learning center activity (depending on how teachers have set things up).

- One transition cue can be very natural: “When you have completed the learning center activity specified for you, place your work in the basket and return to your desk.”

Question 5: What Do Teachers Do When Students Are at Learning Centers?

When students begin using learning centers, teachers should circulate, assist, and reinforce students who are working appropriately. If a point system or some type of token economy is used as a classroom management tool, teachers can provide points or tokens for students who are using the learning centers productively and appropriately. At the very least, specific verbal praise and attention should be provided to increase desired on-task behaviors. Provide positive attention, whether public or private, to students who are doing what they are supposed to be doing at the learning centers. Moreover, extend that positive attention (e.g., verbal comments) to include not only a student's behavior at a learning center (e.g., “The way you're working is impressive; keep it up.”) but also the student's academic achievement (e.g., “I'm just glancing at your work right now, and I see that many of the sentences you've marked for parts of speech are accurate. That's great! It won't be long before you'll be ready to move on to the next set of English competencies.”). Students need to know that their teachers are vigilant about their behavior and work performance while they are at learning centers. Providing positive attention and reinforcement is essential, especially when students are first using learning centers but also in an ongoing manner as students continue to complete tasks and activities at learning centers throughout the year.

Another major task teachers can accomplish when students are engaged appropriately at learning centers is to provide small-group instruction. In fact, in some classrooms, teachers make themselves a learning center—Small Group Instruction Learning Center (refer to Figure 1, Learning Center E, small-group instruction). The small-group instruction can focus on reteaching content, extending applications of content, providing more individualized and specific feedback to students, explaining content in new ways, or even giving directions for how to use a new learning center activity. Figure 7 provides a framework for how a teacher designs a 90-minute block-schedule session: (a) teacher demonstration of new content to the whole class, (b) simultaneous learning center activities focused on three activities, and (c) a center that enables the teacher to provide small-group instruction.

Mathematics—5th period—1:10 to 2:40				
<i>Plan for amount of time per designated instructional task</i>	<i>Learning Center A</i>	<i>Learning Center B</i>	<i>Learning Center C</i>	<i>Learning Center D</i>
1:10 to 1:15 Advance organizer for the day and warm-up problems	Whole Class: listens to the advance organizer for the day, completes warm-up problem independently, and checks warm-up independently (the teacher or a student provides the correct process and answer for the group).			
1:15 to 1:35 Demonstration of Pythagorean theorem	Assign Learning Centers: Demonstration has occurred the previous day; today's demonstration is the third demonstration of the Pythagorean theorem for the class. The teacher has used multiple auditory, visual, color-coded, multi-sensory ways to demonstrate the new content. Vocabulary has been introduced (e.g., <i>right angle</i> , <i>hypotenuse</i>) and used during the demonstrations. Assign groupings per learning center: ____ goes to LC-A first; ____ goes to LC-B first; ____ goes to LC-C first; ____ goes to LC-D first			
1:35 to 1:37 Transition to learning center	Students Move To The Appropriate Learning Center for Them. Two minutes maximum for transition; this includes gathering materials, moving, and beginning work at the learning center.			
1:37 to 2:00 Learning center activities	Small-Group Instruction With the Teacher: This group of learners needs more demonstration of the Pythagorean theorem.	"COMPLETE THE PROBLEMS"	"MATCH THE MEASUREMENTS"	"DRAW YOUR OWN TRIANGLE"
2:00 to 2:02 Transition to learning center	Students Move to Their Next Learning Center (i.e., LC-A goes to LC-B; LC-B goes to LC-C; LC-C goes to LC-D; LC-D goes to LC-A). Two minutes maximum for transition; this includes gathering materials, moving, and beginning work at the learning center.			
2:02 to 2:25 Learning center activities	Small-Group Instruction With the Teacher: This group of learners is ready to begin more independent applications of the Pythagorean theorem.	"COMPLETE THE PROBLEMS"	"MATCH THE MEASUREMENTS"	"DRAW YOUR OWN TRIANGLE"
2:25 to 2:27 Transition to desks	Students Return to Their Desks. Two minutes maximum for transition.			
2:27 to 2:40 Closure and mini-assessment	<ul style="list-style-type: none"> Students respond in writing to three brief problems (e.g., write the formula, define right angle, define hypotenuse) to provide the teacher with formative feedback. Check the answers (no grade involved). Assign homework (this relates to previous content; this may not be related to the new content presented for some students if they are still within an acquisition stage of learning). Provide review of content demonstrated and practiced today. Orient students to the next session's content. Orient students to the unit's goals. Dismiss class. 			

Figure 7. An example of how learning centers can be used with block-schedule courses.

Notice how the teacher's small-group instruction is focused on the varied levels of students: Some students receive review of the new content, and others are provided extensions of the new content.

Conclusion

Learning centers can be used efficiently and effectively to provide differentiated instruction in general and special education settings. Although there is a time investment in organizing and designing learning centers, the payoffs can be well worth the initial costs when teachers realize that learning centers enable them to provide more instructional and practice opportunities so that the diverse learners in their classrooms achieve more. Students with disabilities—whether in general or special education settings—benefit when their teachers implement techniques that enable them to learn and practice content in a variety of ways. Learning centers are one of the techniques that benefit students and teachers by maximizing instruc-

tional opportunities through simultaneously providing varied tasks and activities for students with diverse learning needs to practice what they have learned.

ABOUT THE AUTHOR

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