

Using Scaffolding and Differentiation to Meet the Needs of Grades 6-12 Students



Definition of Tier 1 Instruction (Rule 6A-6.053, F.A.C.)

Florida’s Formula for Success includes three tiers of instruction that are: standards-aligned; include accommodations for students with a disability, students with an Individual Educational Plan (IEP) and students who are English language learners; and incorporate the principles of Universal Design for Learning as defined in 34 C.F.R. 200.2(b)(2)(ii).

Core instruction (Tier 1): provides print-rich explicit and systematic, scaffolded, differentiated instruction and corrective feedback; builds background and content knowledge; incorporates writing in response to reading.

Core Component	Contribution to the Desired Outcomes	Accomplished Use	Ineffective Use
<p>SCAFFOLDED INSTRUCTION is the intentional support provided by a teacher for learners to carry out a task or solve a problem, to achieve a goal that they could not do without support. It is temporary support matched to the current understanding or skill level of support until learners are empowered to perform independently.</p>	<p>Scaffolded instruction contributes toward the quality of a learner’s efforts in relating to new or unfamiliar content, concepts and skills that fortify the development of language and literacy skills orally and in written form.</p>	<ol style="list-style-type: none"> 1. Teacher uses formative assessments to identify the student’s need and adjusts support based on the student’s response. 2. Teacher uses temporary written or verbal prompts, tools or resources to provide appropriate support (think alouds, cue cards, checklists, examples). 3. Teacher engages students in interactive, content-centered learning (dialogue, exchange of ideas, opportunities to question and clarify). 4. Teacher intentionally and gradually decreases support and transfers responsibility to students as self-sufficiency is developed (I do-we do-you do). 	<ol style="list-style-type: none"> 1. Teacher uses formative assessments to identify the student’s need but does not adjust support based on the student’s response. 2. Teacher does not use temporary written or verbal prompts, tools or resources to provide appropriate support (think alouds, cue cards, checklists, examples). 3. Teacher does not engage students in interactive, content-centered learning (dialogue, exchange of ideas, opportunities to question and clarify). 4. Teacher intentionally and gradually decreases support but does not transfer responsibility to students as self-sufficiency is developed (I do- we do-you do).

	Key Points to Remember	Questions
Scaffolding		

Instructional Scaffolding to Improve Learning

Similar to the scaffolding used in construction to support workers as they work on a specific task, instructional scaffolds are temporary support structures faculty put in place to assist students in accomplishing new tasks and concepts they could not typically achieve on their own. Once students are able to complete or master the task, the scaffolding is gradually removed or fades away—the responsibility of learning shifts from the instructor to the student.

Why use Instructional Scaffolding?

One of the main benefits of scaffolded instruction is that it provides for a supportive learning environment. In a scaffolded learning environment, students are free to ask questions, provide feedback and support their peers in learning new material. When you incorporate scaffolding in the classroom, you become more of a mentor and facilitator of knowledge rather than the dominant content expert. This teaching style provides the incentive for students to take a more active role in their own learning. Students share the responsibility of teaching and learning through scaffolds that require them to move beyond their current skill and knowledge levels. Through this interaction, students are able to take ownership of the learning event.

The need to implement a scaffold will occur when you realize a student is not progressing on some aspect of a task or unable to understand a particular concept. Although scaffolding is often carried out between the instructor and one student, scaffolds can successfully be used for an entire class. The points below are excerpted from Ellis and Larkin (1998), as cited in Larkin (2005), and provide a simple structure of scaffolded instruction.

First, the instructor does it

In other words, the instructor models how to perform a new or difficult task, such as how to use a graphic organizer. For example, the instructor may project or hand out a partially completed graphic organizer and asks students to "think aloud" as he or she describes how the graphic organizer illustrates the relationships among the information contained on it.

Second, the class does it

The instructor and students then work together to perform the task. For example, the students may suggest information to be added to the graphic organizer. As the instructor writes the suggestions on the white board, students fill in their own copies of the organizer.

Third, the group does it

At this point, students work with a partner or a small cooperative group to complete the graphic organizer (i.e., either a partially completed or a blank one). More complex content might require a number of scaffolds given at different times to help students master the

Fourth, the individual does it

This is the independent practice stage where individual students can demonstrate their task mastery (e.g., successfully completing a graphic organizer to demonstrate appropriate relationships among information) and receive the necessary practice to help them to perform the task automatically and quickly.

Types of Scaffolds

Alibali (2006) suggests that as students progress through a task, faculty can use a variety of scaffolds to accommodate students' different levels of knowledge. More complex content might require a number of scaffolds given at different times to help students master the content. Here are some common scaffolds and ways they could be used in an instructional setting.

- Advance organizers - Tools used to introduce new content and tasks to help students learn about the topic: Venn diagrams to compare and contrast information; flow charts to illustrate processes; organizational charts to illustrate hierarchies; outlines that represent content; mnemonics to assist recall; statements to situate the task or content; rubrics that provide task expectations.
- Cue Cards - Prepared cards given to individual or groups of students to assist in their discussion about a particular topic or content area: Vocabulary words to prepare for exams; content-specific stem sentences to complete; formulae to associate with a problem; concepts to define.
- Concept and mind maps - Maps that show relationships: Partially or completed maps for students to complete; students create their own maps based on their current knowledge of the task or concept.
- Examples - Samples, specimens, illustrations, problems: Real objects; illustrative problems used to represent something.
- Explanations - More detailed information to move students along on a task or in their thinking of a concept: Written instructions for a task; verbal explanation of how a process works.
- Handouts - Prepared handouts that contain task- and content-related information, but with less detail and room for student note taking.
- Hints - Suggestions and clues to move students along: "place your foot in front of the other," "use the escape key," "find the subject of the verb," "add the water first and then the acid."
- Prompts - A physical or verbal cue to remind—to aid in recall of prior or assumed knowledge.
 - Physical: Body movements such as pointing, nodding the head, eye blinking, foot tapping.
 - Verbal: Words, statements and questions such as "Go," "Stop," "It's right

- there,” “Tell me now,” “What toolbar menu item would you press to insert an image?”, “Tell me why the character acted that way.”
- Question Cards - Prepared cards with content- and task-specific questions given to individuals or groups of students to ask each other pertinent questions about a particular topic or content area.
- Question Stems - Incomplete sentences which students complete: Encourages deep thinking by using higher order “What if” questions.
- Stories - Stories relate complex and abstract material to situations more familiar with students: Recite stories to inspire and motivate learners.
- Visual Scaffolds - Pointing (call attention to an object); representational gestures (holding curved hands apart to illustrate roundness; moving rigid hands diagonally upward to illustrate steps or process), diagrams such as charts and graphs; methods of highlighting visual information.

Preparing to Use Scaffolding

As with any teaching technique, scaffolds should complement instructional objectives. While we expect all of our students to grasp course content, each of them will not have the necessary knowledge or capability to initially perform as we have intended. Scaffolds can be used to support students when they begin to work on objectives that are more complex or difficult to complete. For example, the instructional objective may be for students to complete a major paper. Instead of assuming all students know how to begin the process, break the task into smaller, more manageable parts.

1. First, the instructor provides an outline of the components of the paper
2. Then students would prepare their outline
3. The instructor then provides a rubric of how each paper criteria will be assessed
4. Students would then work on those criteria and at the same time and self-evaluate their progress
5. The pattern would continue until the task is completed (although scaffolds might not be necessary in all parts of the task)

Knowing your subject well will also help you identify the need for scaffolding. Plan to use scaffolds on topics that former students had difficulty with or with material that is especially difficult or abstract. Hogan and Pressley, (1997) suggest that you practice scaffold topics and strategies they know well. In other words, begin by providing scaffolded instruction in small steps with content you are most comfortable teaching.

Guidelines for Implementing Scaffolding

The following points can be used as guidelines when implementing instructional scaffolding (adapted from Hogan and Pressley, 1997).

- Select suitable tasks that match curriculum goals, course learning objectives and students' needs.
- Allow students to help create instructional goals (this can increase students' motivation and their commitment to learning).
- Consider students' backgrounds and prior knowledge to assess their progress – material that is too easy will quickly bore students and reduce motivation. On the other hand, material that is too difficult can turn off students' interest levels).
- Use a variety of supports as students progress through a task (e.g., prompts, questions, hints, stories, models, visual scaffolding “including pointing, representational gestures, diagrams, and other methods of highlighting visual information” (Alibali, M, 2006)
- Provide encouragement and praise as well as ask questions and have students explain their progress to help them stay focused on the goal.
- Monitor student progress through feedback (in addition to instructor feedback, have students summarize what they have accomplished so they are aware of their progress and what they have yet to complete).
- Create a welcoming, safe, and supportive learning environment that encourages students to take risks and try alternatives (everyone should feel comfortable expressing their thoughts without fear of negative responses).
- Help students become less dependent on instructional supports as they work on tasks and encourage them to practice the task in different contexts.

Benefits of Instructional Scaffolding

- Challenges students through deep learning and discovery
- Engages students in meaningful and dynamic discussions in small and large classes
- Motivates learners to become better students (learning how to learn)
- Increases the likelihood for students to meet instructional objectives
- Provides individualized instruction (especially in smaller classrooms)
- Affords the opportunity for peer-teaching and learning
- Scaffolds can be “recycled” for other learning situations
- Provides a welcoming and caring learning environment

Challenges of Instructional Scaffolding

- Planning for and implementing scaffolds is time consuming and demanding.
- Selecting appropriate scaffolds that match the diverse learning and communication styles of students.
- Knowing when to remove the scaffold so the student does not rely on the support.
- Not knowing the students well enough (their cognitive and affective abilities) to provide appropriate scaffolds.

Summary

Instructional scaffolds promote learning through dialogue, feedback and shared responsibility. Through the supportive and challenging learning experiences gained from carefully planned scaffolded learning, instructors can help students become lifelong, independent learners.

References

Alibali, M (2006). *Does visual scaffolding facilitate students' mathematics learning?* Evidence from early algebra. <https://ies.ed.gov/funding/grantsearch/details.asp?ID=54>

Hogan, K., and Pressley, M. (1997). *Scaffolding student learning: Instructional approaches and issues*. Cambridge, MA: Brookline Books.

Larkin, M. (2002). *Using scaffolded instruction to optimize learning*. <https://www.vtaide.com/png/ERIC/Scaffolding.htm>

Selected Resources

Dennen, V. P. (2004). Cognitive apprenticeship in educational practice: Research on scaffolding, modeling, mentoring, and coaching as instructional strategies. In D. H. Jonassen (Ed.), *Handbook of Research on Educational Communications and Technology* (2nd ed.), (p. 815). Mahwah, NJ: Lawrence Erlbaum Associates.

Johnston, S., and Cooper, J. (1997). *Cooperative Learning and College Teaching*. Vol. 9, No. 3 Spring 1997.

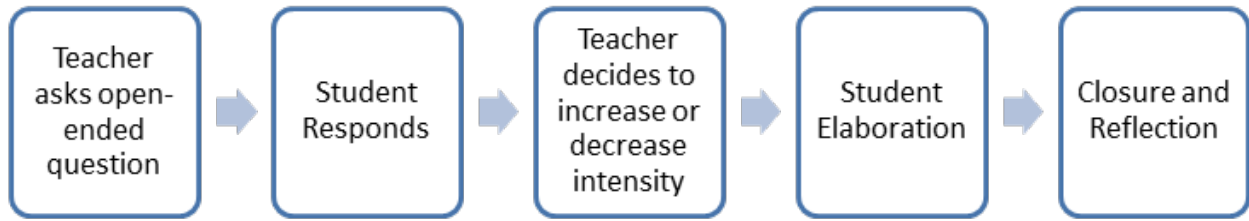
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Handout #3 Scaffolding Video Viewing Guide

Directions: Observe the teacher's scaffolding in the video and record your observations in the chart below. Also, jot down any ideas you would like to try.

Observations	Ideas to Try

"Strive for Five" Turns in a Conversation



	1. The teacher asks an open-ended question that requires a more elaborate answer.
	2. Student responds to the initial question. Teacher determines if the student's response is correct or incorrect.
	3. Teacher decides to step it up or down. Teacher expands on the student's response by asking follow-up questions or prompting the student to delve deeper into their answer. This helps the student build on their initial contribution and guides them to think more critically.
	4. Student elaborates on their response based on the teacher's prompts. The teacher continues to provide support and guidance, fostering a more extended and meaningful conversation.
	5. Closure and reflection concludes with a summary or reflection. The teacher may summarize key points discussed, praise the student's contributions and provide constructive feedback.

<p>WASHINGTON'S FAREWELL ADDRESS</p>	<p>"Strive for Five" Planning</p>
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WASHINGTON'S FAREWELL ADDRESS

the Almighty to avert or mitigate the evils to which they may tend. I shall also carry with me the hope that my country will never cease to view them with indulgence and that, after forty-five years of my life dedicated to its service with an upright zeal, the faults of incompetent abilities will be consigned to oblivion, as myself must soon be to the mansions of rest.

Relying on its kindness in this as in other things, and actuated by that fervent love towards it which is so natural to a man who views in it the native soil of himself and his progenitors for several generations, I anticipate with pleasing expectation that retreat, in which I promise myself to realize without alloy the sweet enjoyment of partaking in the midst of my fellow citizens the benign influence of good laws under a free government—the ever favorite object of my heart, and the happy reward, as I trust, of our mutual cares, labors and dangers.

GEO. WASHINGTON

UNITED STATES

19th September 1796

Handout #6 Differentiation Note Taking Document

Core Component	Contribution to the Desired Outcomes	Accomplished Use	Ineffective Use
<p>DIFFERENTIATED INSTRUCTION is adapting instruction in response to the distinct assessed skills and needs of individual learners in order to increase their access and opportunities to meet specific learning goals.</p>	<p>Differentiated instruction contributes to the refined understanding of specific content, concepts and skills within each learner’s distinct range of understanding and independent practice that improves individual abilities to successfully engage in comprehension, fluency/decoding, letter-word reading, vocabulary and writing.</p>	<ol style="list-style-type: none"> 1. Teacher creates flexible structures and routines that allow for differentiation. 2. Teacher delivers instruction that is adapted through content, process and/or product in order to meet individual student learning needs. 3. Teacher monitors student understanding and progress toward meeting targeted learning goals on a continued basis. 	<ol style="list-style-type: none"> 1. Teacher creates flexible structures and routines that do not allow for differentiation. 2. Teacher delivers instruction that is adapted through content, process and/or product but does not meet individual student learning needs. 3. Teacher does not monitor progress toward meeting targeted learning goals on a continued basis.

	Key Points to Remember	Questions
Differentiation		

A Practical Guide to Planning for Intentional Differentiation

By John McCarthy

March 26, 2021

<https://www.edutopia.org/article/practical-guide-planning-intentional-differentiation/>



Gregg Vignal / Alamy

Differentiating for the needs of all learners is an important focus that many teachers across the world share. We want our students to have a year-plus growth in courses, whether they're struggling with core basics, are just at the appropriate skill level, or have understanding that exceeds the learning outcomes of the curriculum. These are the key elements to consider in differentiating instruction:

- **Planning:** Content, processes, and products
- **Learner access:** Readiness, interests, and learning preferences
- **Environment**

Much has been written to help teachers think about and provide differentiated experiences for learners that align and explain these elements. However, the question and challenge that I hear and observe from teachers most often is: how do we effectively plan intentional differentiation that we can implement and evaluate with the same confidence and understanding as traditional lessons? The answer that follows is based on a change in how to use the planning elements—content, processes, and products—for differentiation, which is finding traction in classrooms that are using this approach.

A THREE-PRONGED APPROACH TO PLANNING FOR DIFFERENTIATION

Part 1: Content. Content is what students need to know, understand, and do something with. When identifying these outcomes, we also shape the assessment(s) by how learners can demonstrate what they understand. Success comes from teachers accomplishing two steps for this task.

First, identify the specific skills and concepts that students must achieve. This is what gets measured and analyzed through a variety of assessments. Unpacking the skills and concepts enables teachers to track student learning progress for areas of additional support for learners with significant gaps and learners who are ready for complexity beyond the content expectations of the lesson. This understanding enables teachers, instructional coaches, and supervisors to be on the same page as to what students need to learn through intentional differentiation.

Second, collect data on what the students bring to the focused content. Sometimes, this step is viewed as finding strategies for planning differentiation. That is a mistake. Meeting learner needs means knowing what opportunities they bring to the lesson based on what they already know and what challenges exist, based on gaps in core areas of need. Examples of student data to collect prior to planning include life experiences and interests outside of school and academic skills. Using strategies like K-W-L charts or need to knows is one way to find out what learners already know about the topic. Their level of understanding of the content should be factored into the planning. No student feels engaged with a lesson or session that delivers content they have long since mastered. This stage of planning also helps to confirm gaps in knowledge.

Educators should collect information about students' interests and passions that may relate to, or give them background for, applications of the content. This data can lead to rich learning experiences, such as providing informational text to read and analyze from articles about sports or Minecraft if many students identify those as areas of interest.

Accomplishing these two steps helps to ensure that the educators feel well prepared about the specific curriculum expectations at a targeted level. It also ensures that teachers are fully aware of what students bring to the content in terms of opportunities and areas of challenge.

Part 2: Processes. Process is about the different ways that students make sense of the content. Students need frequent experiences of sense-making through a variety of different ways and opportunities. Teachers make this happen through lessons that are made up of a series of activities.

Differentiation through processes is applied in one or more of these activities that make up the lesson. Teachers might start with differentiating one activity. As confidence and experience grows, most lesson activities can be differentiated. The focus of intentional differentiation for process is based on students' content opportunities and challenges. It also incorporates at least one of the learner access elements: readiness, interests, and learning preferences.

Here are two examples.

English: Using details in writing through learning centers. Each center focuses on a different type of detail strategy: example, facts, and sensory detail. Each center includes two options and students choose one to complete.

Math: Understanding the parts and functions of fractions through think dots. Students are put into groups based on their readiness skill level to complete a tiered activity where they all must complete the focus skills. Each group collaborates to solve the six tasks in a random order of choice.

Part 3: Products. Products are the artifacts that students create to show what they know and do not know. These products vary in format both small and large, such as quizzes, reflections, discussions, multimedia, social media tools, and performance tasks.

Intentional differentiation is based on how to leverage what's known about students' content opportunities and challenges. Also, use at least one of the learner access elements: readiness, interests, and learning preferences. These experiences range from practice to learn to assessment checks on progress. There is much flexibility to provide learners with a range of opportunities and experiences to help them make connections and extend their learning while maintaining the content focus.

DRIVING FORWARD WITH DIFFERENTIATION

Explore this approach for reflecting and planning for students' needs through differentiation. Using content, processes, and products as planning steps provides a clear and concise approach toward choosing strategies and activities based on learner needs that align with the lesson outcomes. This resource curation portal offers ideas to build into your plan, and this differentiation guide offers more insights and a differentiation planning criteria checklist to start your planning journey.

This structure not only empowers student learning but also gives educators common language for collaborative professional opportunities to discuss, implement, and build stronger experiences that meet the needs of all their learners.

Handout #8 Differentiation Video Viewing Guide

Directions: While viewing the video, record notes about differentiation in the chart below. Also, jot down any questions you may have.

Observations	Questions

Handout #9 Differentiation Application Activity

Scenario

Suppose a grade 8 teacher directs students to independently read and annotate the speech to track the development of an argument and the author’s use of rhetoric. Then, the teacher asks students to write a paragraph explaining how Sojourner Truth uses rhetorical questions to advance an appeal.

Excerpt from “Ain’t I a Woman?” by Sojourner Truth

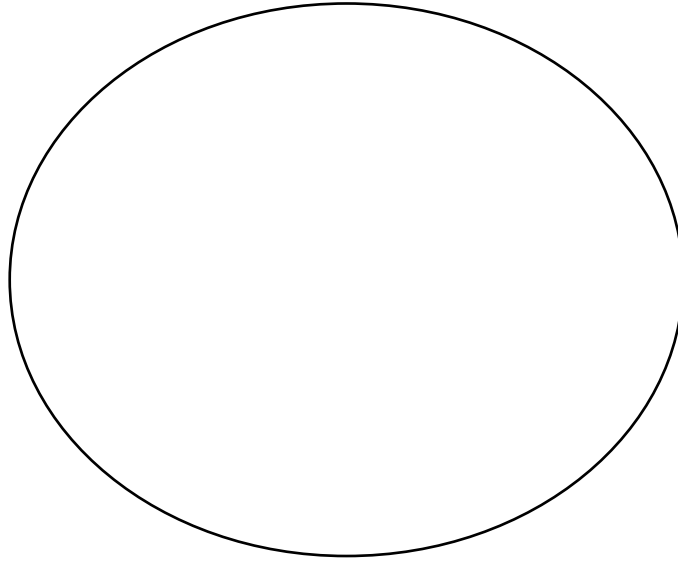
That man over there says that women need to be helped into carriages, and lifted over ditches, and to have the best place everywhere. Nobody ever helps me into carriages, or over mud-puddles, or gives me any best place! And ain't I a woman? Look at me! Look at my arm! I have ploughed and planted, and gathered into barns, and no man could head me! And ain't I a woman? I could work as much and eat as much as a man - when I could get it - and bear the lash as well! And ain't I a woman? I have borne thirteen children, and seen most all sold off to slavery, and when I cried out with my mother's grief, none but Jesus heard me! And ain't I a woman?

How could you differentiate the

Process?	Content?	Product?

Handout #10 Reflection Activity

What is one question still circling around in your mind?



What is one concept you have squared away?

