



Demystifying Differentiated Instruction

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Demystifying Differentiated Instruction

Our students are curious about the magnets on their tables. The teacher asks, “How could we find out which magnet is strongest?” Instantly, five hands wave in the air from students who are eager to share their response. The teacher scans the class, wondering if all 28 students are considering the question. At this moment, differentiated instruction (DI) is needed to ensure that all students develop a response to the question. Then DI will be used to adjust instruction based on student answers. However, it may be difficult for this teacher to use DI because there is not a common vivid picture of what DI looks like in the classroom. Too often, teachers experience DI as planning and practices that are not sustainable within the time and curriculum constraints of teaching. A new practical definition of DI is needed that focuses on how teachers decide to ensure engagement and optimal challenge for all learners every day.

What is Differentiated Instruction (DI)?

During lessons, teachers use a three-part decision-making process to differentiate instruction. First, teachers look and listen for academic diversity that will strengthen or impede effective and efficient learning. Second, teachers analyze their perceptions of academic diversity in terms of students needing increased clarity, access, rigor, and relevance (CARR). Third, teachers change instruction for all, some, or individual students to increase CARR (Bondie & Zusho, 2018). Then the process repeats as teachers perceive the impact of their changes to instruction on student learning. Figure 1 displays DI’s continuous process of decision-making based on teacher perception, analysis, and changes to instruction that can be observed during teaching. In addition, prior to and after teaching, teachers plan for diverse learners and reflect on the impact of instruction on student learning.

Insert Figure 1 about here

Simple instructional changes greatly impact student engagement and learning. For example, going back to our magnet lesson, after asking the question about testing the magnets, the teacher might direct students to individually jot or draw their initial thinking and then on the count of three “Show and Share” their responses with others at their tables to look for patterns. Or the teacher might invite students to form small groups around the five students with their hands raised. Then in those groups, students discuss their initial thinking with their peers for two minutes then individually jot or draw their response. If the teacher perceives that many students need greater clarity about the question and access to vocabulary about magnets - then the discussion with peers is the more effective instructional decision. However, if all students are ready to answer the question, directing students to an individual response enables them to test their thinking prior to sharing with peers. The teacher decision to ask students to write their answer first and then share OR to first share with peers and then write individually is a type of DI called, Adjust Common Instruction. DI includes three different types of instructional changes: 1. *Adjust Common Instruction*, 2. *Use Specific Resources*, and 3. *Individualize Practice* (see Figure 2).

Insert Figure 2 about here

Adjust Common Instruction

Requiring minimal planning time, Adjust Common Instruction is the most frequently used form of DI. Adjustments to instruction keep objectives, materials, and assessments the same for all students. Small changes in classroom routines and existing materials are made to increase CARR. For example, adjustments happen in the: directions for a task (e.g. assigning certain students to share first or last in a small group), order of the planned tasks (e.g. first writing then sharing or first sharing and then writing), the help resources assigned to students (e.g. models, answer keys, strategy charts, and glossaries), and the number of options (e.g. student choice in questions, resources, or ways to respond) to ensure all students are continuously engaged and challenged throughout the lesson. In addition, making quality criteria visible for tasks fosters student independence and provides teachers with an opportunity to easily adjust instruction. Table 1 displays possible criteria to support students in developing an answer to the magnet strength question. Visible criteria provide a means for precise feedback and offer a mechanism to easily adjust tasks to increase CARR.

Table 1. Quality criteria for student responses

Must Have	Amazing
<input type="checkbox"/> Two ways to test magnets <input type="checkbox"/> Sketch ideas <input type="checkbox"/> Label the sketch	<input type="checkbox"/> Use vocabulary: distance, materials, shape <input type="checkbox"/> Circle the most important word or part

Use Specific Resources

When student learning needs cannot be addressed through adjustments to instruction alone, teachers assign some or individual students to use different specific resources that are provided with a strategic teaching approach. The objectives and assessments remain the same for all students. However, specific resources are assigned, such as leveled texts, scaffolds, or materials based on student interest. For example, in our magnet lesson, the teacher may have passed out picture/fact cards each with one fact about magnets to students who needed support developing their answer or academic phrase cards to challenge students to use complex language such as if-then statements or comparison sentence stems like “Common to both” or “Similarly.” Teaching approaches for specific resources include 1. fading - where the teacher systematically removes the resource as the student grows toward mastery or 2. teaching to independent use of the help resource - where the teacher instructs the student how to ask for or make the resource. For example, a teacher may teach students how to choose between a Venn diagram and a timeline to organize information based on what the question is asking. Rather than giving students the appropriate graphic organizer, students learn the purpose of the help resource and how to ask for a resource when needed. In addition, the teacher varies what is given and what students need to generate on graphic organizers so that students can create the graphic organizer

on a scrap piece of paper when needed to organize information. The effectiveness of specific resources is tied to the implementation of the teaching approach.

Individualize Practice

Students begin learning with different experiences and skills and then progress at different rates. Therefore, students need varied time for practice. During individualized practice, students are using materials from previously taught lessons to practice or extend learning. No new instruction happens during practice time.

Insert Figure 3 about Here

When implementing DI, teachers adjust common instruction, use specific resources, and/or individualize practice to meet student learning needs in every lesson. Figure 3 displays the relationships between the learners being served, type of DI and planning time needed, and frequency of use in the classroom. Figure 4 displays what changes when teachers adjust common instruction in response to perceived student strengths and needs during lessons. This article explores how teachers use a CARR Check to determine when and how to adjust common instruction.

Insert Figure 4 about Here

CARR Check to Determine Why and When to Use DI

A CARR check helps teachers quickly analyze student responses and then adjust instruction with greater precision. Figure 5 displays key questions to help teachers determine student learning needs. For example, if a teacher adjusts instruction to increase clarity through adding a short group discussion to the lesson then the teacher can assess the impact of that discussion on reducing confusion. If a teacher wants to increase access by adding a help resource such as a sentence starter or problem model, then the teacher can evaluate how this help resource impacted student ability to complete the task independently. Rather than creating easy, medium, and hard tasks - use a CARR check to determine specifically the goal of the adjustments to instruction. A CARR check also helps teachers align DI with other frameworks such as Universal Design for Learning, Culturally Relevant Pedagogy, and Higher Order Thinking Skills.

Insert Figure 5 about Here

DI: Adjusting the Development of Student Responses

Let's return to the example in our introduction. After asking the question about the magnets, the teacher can adjust how students develop answers to the question based-on perceptions of student learning needs. Examine the Figure 6, we see a lesson plan where students will answer a question in four steps: 1. Individual think time, 2. Free discussion with a partner or in a small group, 3. Individual writing, and 4. Structured discussion where each student shares their written answer one at a time in a small group. However, after posing the question the teacher notices that many students seem confused or look down at their desk. So, the teacher adjusts the order of the structure for the task to 2. Free discussion to clarify the question and generate several possible answers with peers before 1. Individual think time (Figure 7).

Insert Figure 6 & 7 about Here

The teacher may keep the original order for the 3rd and 4th step or could adjust to have a 4. Structured discussion routine prior to 3. Individual write. The structure order of 3. Individual write and then 4. Structured discussion routine may increase student elaboration on written answers and provides immediate feedback to students on their writing. However, moving the structured discussion before the individual write would give students feedback on their answer prior to writing the answer on their own (See Figure 8). This might increase access for students who are learning English because they can practice the answer once orally with peers prior to writing independently.

Insert Figure 8 about Here

Figure 9 shows other possible adjustments that may increase rigor and relevance. Assigning students to use quality criteria in their responses such as the vocabulary words - attract, repel, and distance – increases the rigor of the task without changing the objectives, materials, or assessments. Another adjustment might require students to make connections to previous readings to increase relevance. DI is the process of teacher’s weighing the possible learning opportunities created by these adjustments to instruction and determining changes that create learning experiences with optimal challenge for all learners. We see how daily opportunities in every lesson, such as how students develop responses to a question, offer teachers opportunities to adjust instruction to increase CARR using the same objectives, materials, and assessments for all students.

Insert Figure 9 about Here

Look again at Figure 6, our original lesson plan for gathering student responses to a teacher’s question. The teacher may not be able to adjust the task structures. Instead the teacher decides to increase access for some students by assigning a help resource. For example, students who need greater access are given a sentence stem that supports their use of more complex academic language. Another adjustment could be to increase the options offered to students. In the magnet lesson, the teacher might adjust common instruction by posing three questions and requiring all students to answer the first question and choose between one of the other two questions.

Four Steps to Launch Daily DI without Additional Planning Time

This approach to DI provides teachers with a framework to guide decisions to change instruction in response to perceived learning needs. Four practical steps support teacher decision-making and launch the use of DI in every lesson.

Step 1: Record student responses at least once in every lesson.

Record student responses to a question or solutions to a problem at least once in every lesson. Write student responses on chart paper, a board, or type into a slideshow or ask students to write or draw their responses. Conduct a CARR check using the written responses to determine if students need increased clarity, access, rigor, or relevance. Use the collected student responses as a help resource or offer feedback on ways to improve the responses. For example,

the teacher could chart the answers from a reporter representing each table or group of students as they propose a way to test the magnets. Then the students and teacher together can examine the responses for testable questions and vocabulary. These responses may shape the next part of the lesson in terms of student groupings or proposals for tests each group may conduct using the magnets.

Step 2: Provide Must Haves and Amazing Criteria for every assigned task.

Post quality criteria for completing tasks including Must Haves (required) and Amazing (ways to go beyond) to provide clarity and access to teacher expectations. Direct students to use the criteria to prompt self-regulated learning. Assign all students to at least one Amazing criterion setting the expectation that all students can both meet and reach beyond expectations. Consider how to prompt students use of the criteria in Table 1 and what additional criteria could be added to increase CARR.

Step 3: Assign students to use Help Resources currently available in the classroom.

Identify possible help resources such as strategy posters, vocabulary walls, and student notebooks when assigning tasks to students. Assign students to use a help resource in the room prior to launching independent tasks. Prepare students with a means to identify help resources by acknowledging the page number in their notebook or a resource on the wall that might help for each problem prior to beginning independent tasks. For example, images of ways to test the strength or the magnets might be available in folders as a help resource on student tables.

Step 4: Adjust teacher directions until all students begin a task.

Stand in one place after giving directions until all students begin the task. Adjust directions as needed by assigning quality criteria, adding a help resource, and/or offering choices. Avoid running to certain students to provide additional help right after giving directions, instead adjust instruction so that all students can begin independently. Try the adjustments pictured in the Figures 6 through 8 after asking a question to see how different structures impact student engagement and the quality of student responses.

Communicating High Expectations through DI

Students come into our classes with varied experiences, understandings, interests, strengths and needs. However, finding practical and effective ways to respond to student diversity daily is among teachers' greatest challenges. As we can see from this new practical definition, DI is an essential tool for learning from and with students and holding high expectations for all students. Begin DI with one of the four steps: Record Student Responses, Provide Quality Criteria, Assign Help Resources, and Adjust Directions. Consider how this step will help you communicate high expectations for all students. Start small with one practical step, the results will fuel our efforts to use DI to ensure that all learners are learning every day.

References

Bondie, R., & Zusho, A. (2018). *Differentiated Instruction Made Practical: Engaging the Extremes Through Classroom Routines*. Routledge.

Figures

[Link to figures](#)

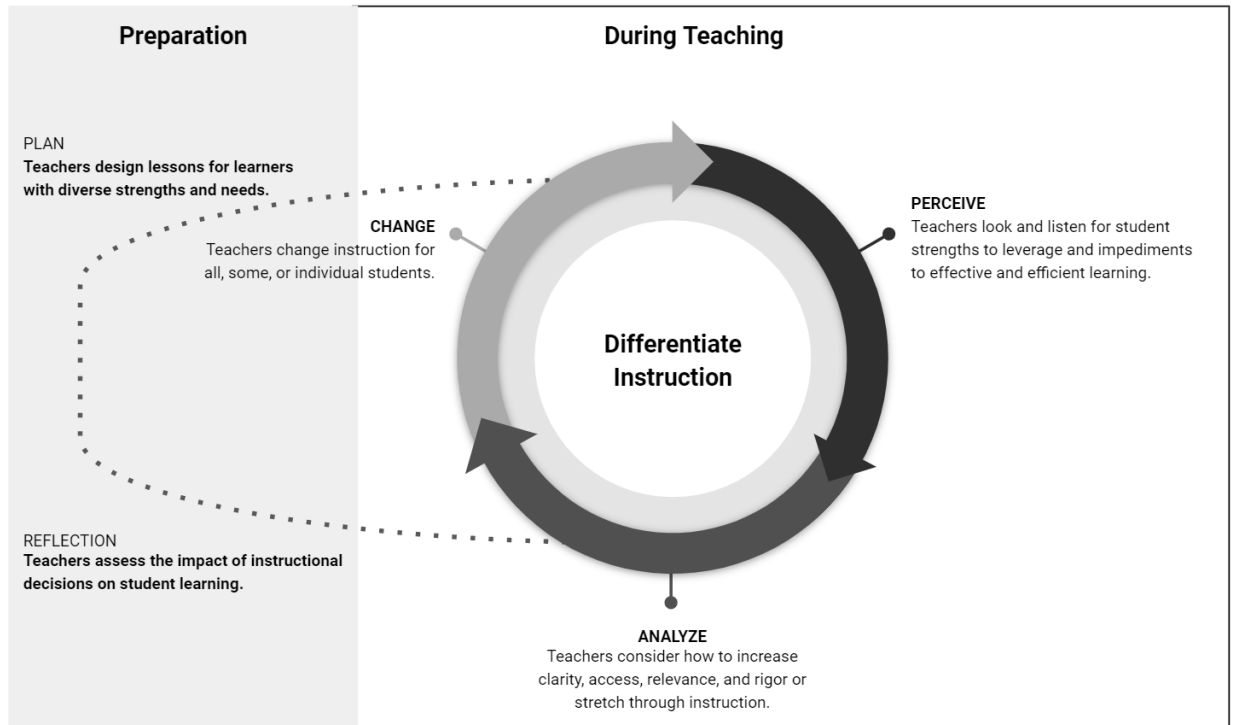


Figure 1. Model of Teacher Decision-Making to Differentiate Instruction During Lessons

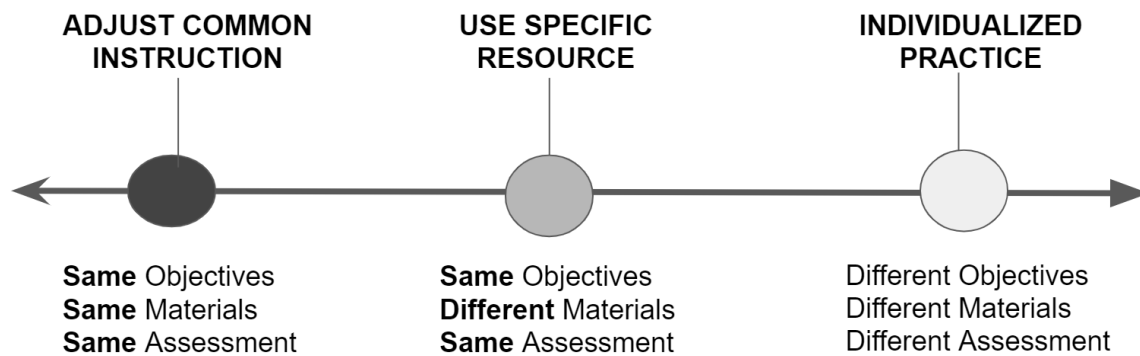


Figure 2. Continuum of Different Types of Differentiated Instruction

Students receiving	<u>Implementation Frequency</u>		Preparation Time
All	1. Adjust Common Instruction		
Some	2. Use Specific Resources		
Individual	3. Individualize Practice		

Figure 3. Types of Differentiated Instruction by Learners, Implementation Frequency, and Preparation Time

Adjust Common Instruction	
Keep the Same	Adjust or Change
<ul style="list-style-type: none">● Objectives● Materials● Assessments	<ul style="list-style-type: none">● Structures for Learning● Help Resources● Options

Figure 4. Adjust Common Instruction Keep the Same and Adjust or Change

CARR Check Questions for Teacher Reflection	
Clarity	Is this task clear to ALL students? Are the words understandable by all students? Are students expected to understand vocabulary that may be vague, have multiple meanings, or are in unfamiliar contexts?
Access	Could ALL students complete the task independently and feel capable?
Rigor	How much effort is required of different students? What would students find complex?
Relevance	Would ALL students find this task important, interesting, valuable, and/ or useful?

Figure 5. CARR Check: Reflection Questions

Steps to Students Answering a Question



Figure 6. Steps to Students Answering a Question

DI = Adjust Order of Planned Steps

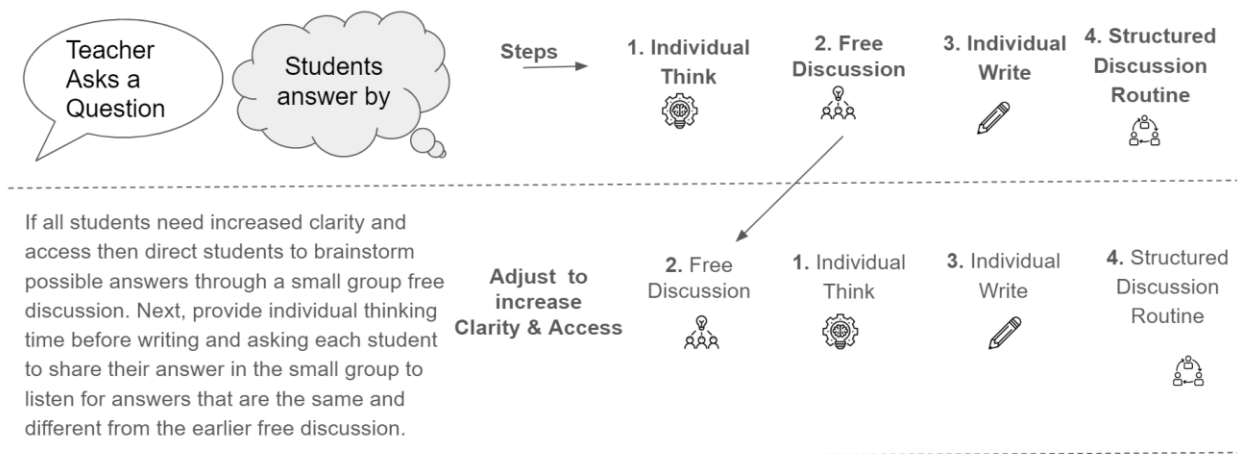


Figure 7. Adjustment to Increase Student Clarity and Access

Adjust Instruction for Clarity and Access

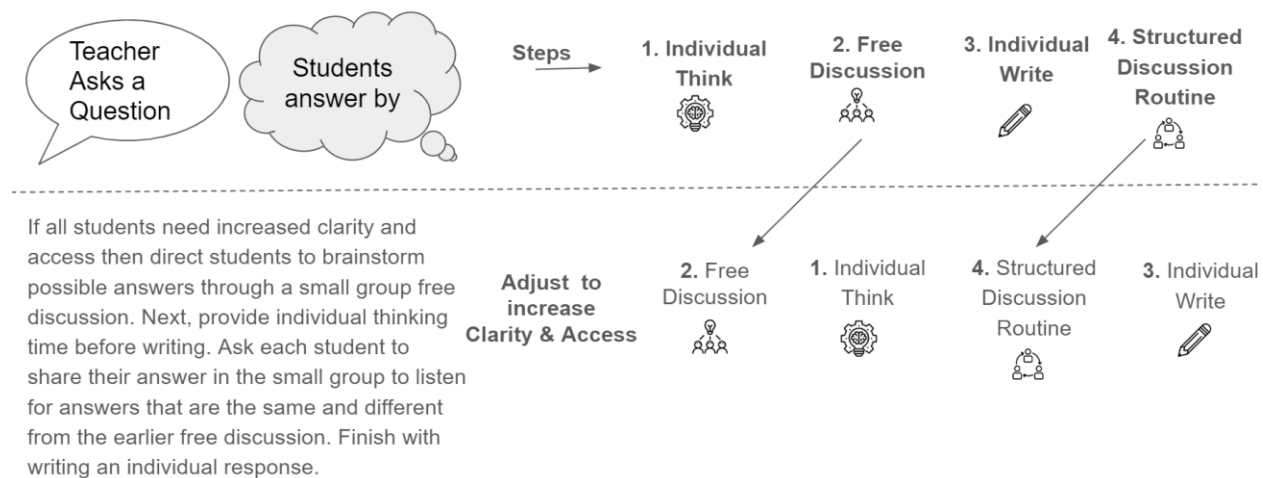


Figure 8. Second Adjustment to Increase Access through Peer Feedback Prior to Writing

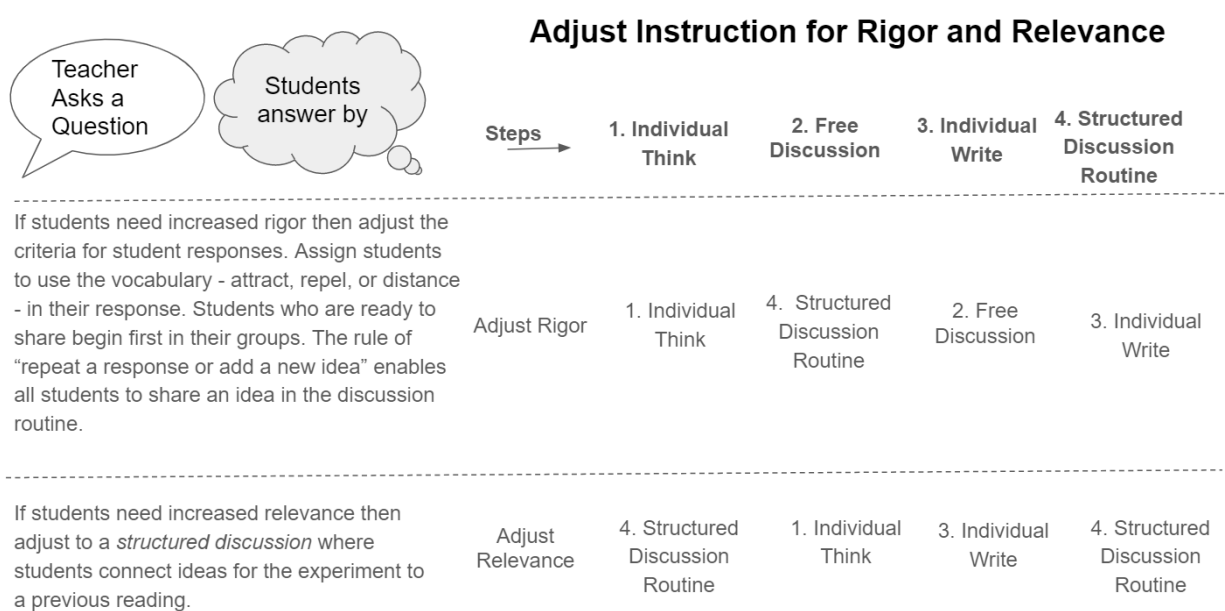


Figure 9. Adjustments to Increase Rigor and Relevance