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THE How To's OF Planning Lessons Differentiated by Readiness

Three characteristics of students guide differentiation: readiness, interest, and learning profile. We know that students learn better if tasks are a close match for their skills and understanding of a topic (readiness), if tasks ignite curiosity or passion in a student (interest), and if the assignment encourages students to work in a preferred manner (learning profile). In this chapter and the next two, we'll take a look at the basics of differentiating instruction in response to those three student traits. This chapter focuses on readiness differentiation. A task that's a good match for student readiness extends that student's knowledge, understanding, and skills a bit beyond what the student can do independently. A good readiness match pushes the student.

"playing by ear" when they differentiate instruction in their classrooms based on the readiness levels of their students. That is, they simply do what seems right for their students. Generally, intuition begins the process, and over time teachers learn from their successes and failures, refining what they do as they go along. Thus when we ask teachers how they plan a differentiated lesson in response to student readiness, their answers are often a bit vague: "I just try to match the tasks to the students' readiness level," or "I put them in groups I think will work." Clarity about differentiation by readiness can hone and refine good instincts, giving the teacher a greater sense of comfort with readiness differentiation and providing students more appropriate learning experiences.

Thinking About Differentiation

comprehensive guide for planning and monitoring the effectiveness of differentiated curriculum. One way to get specific guidance about what teachers do when they create differentiated lessons is to study those lessons and discover what makes them differentiated. We can also learn much by asking "What supports the instinct to differentiate instruction?" Figure 8.1 is an answer to that question, derived from looking at many examples of differentiation. The tool in this figure is called "the equalizer."

Designing differentiated instruction is similar to using the equalizer buttons on a stereo or CD player. You can slide the buttons across several different continuums to get the best combination of sounds for each musical piece. In a differentiated classroom, adjusting the "buttons" appropriately for various students' needs equalizes their chances of being appropriately challenged by the materials, activities, and products in your classroom, as follows:

• **Foundational to Transformational.** When an idea is new to some students, or if it's not in one of their stronger areas, they often need supporting information about the idea that is clear and plainly worded. Then they usually need time to practice applying the idea in a straightforward way. In these instances, the materials they use and the tasks they do should be foundational—that is, basic and presented in ways that help them build a solid foundation of understanding. At other times, when something is already clear to them or is in a strength area, they need to move along quickly. They need information that shows them intricacies about the idea. They need to stretch and bend the idea and see how it interacts with other ideas to create a new thought. Such conditions require materials and tasks that are more transformational.

For example, one child may benefit from a more basic task of classifying animals by body covering, while another may need the more transformational task of predicting how changes in environment would likely affect the body covering of several animals. In a math class, one young learner may be ready for a basic application of the concept of fractions by cutting fruit and placing it to reflect a given fraction. An appropriate challenge for another student may be the more transformational task of writing measures of music that represent certain fractions.

• **Concrete to Abstract.** Students usually need to become familiar with the key information or material about an area of study before they can successfully look at its implications, meanings, or interrelationships. However, once they have grasped the information in a concrete way, it's important that they move on to meanings and implications. Working with concrete information should open a door for meaningful abstraction later on. For example, grasping the idea of plot (more concrete) typically has to precede investigations of theme (more abstract). But ultimately, all students need to delve into the meanings of stories, not just the events. The issue here is readiness or timing.

• **Simple to Complex.** Sometimes students need to see only the big picture of a topic or area of study, just its "skeleton," without many details. Even adults often find it helpful to read a children's book on black holes, for example, before they tackle the work of Stephen Hawking. When the big picture is needed, your students need resources, research, issues, problems, skills, and goals that help them achieve a framework of understanding with clarity. On the other hand, when the "skeleton" is clear to them, they'll find it more stimulating to add "muscle, bone, and nerves," moving from simple to complex. Some students may need to work more simply with one abstraction at a time; others may be able to handle the complexity of multiple abstractions.

Figure 8.1
The Equalizer: A Tool for Planning Differentiated Lessons

For example, some students may be ready to work with the theme in a story (a single abstraction), while other students look at interrelationships between themes and symbols (multiple abstractions, or complexity).

• **Single Facet to Multiple Facets.** Sometimes students are at peak performance when working on problems, projects, or dilemmas that involve only a few steps or solutions to complete. It may be all that some students can handle to make a connection between what they studied in science today and what they studied last week. Those with greater understanding and facility in an area of study are ready for and more challenged by following complicated directions. They are more challenged by solving problems that are multifaceted or require great flexibility of approach, or by being asked to make connections between subjects that scarcely seemed related before.

• **Small Leap to Great Leap.** Note that this continuum does not provide the option of "no leap." Students should always have to run ideas through their minds and figure out how to use them. Activities that call only for absorption and regurgitation are generally of little long-term use.

But for some students, learning about how to measure area and then applying that learning by estimating and verifying the area of the hamster house compared to the teacher's desk may be enough of a leap of application and transfer—at least in the beginning. Other students may be able to move from estimating and verifying area to estimating materials needed for a building project and proportional cost implications of increasing the building area. In both cases, students make mental leaps from reading information on a page to using that information. The latter task calls for relatively greater leaps of application, insight, and transfer.

• **Structured to Open-Ended.** Sometimes students need to complete tasks that are fairly well laid out for them, where they don't have too many decisions to make. Novice drivers begin by managing the car on prescribed driving ranges or delineated routes. Being new to a computer or word processor often requires completing programmed and closed lessons that involve "right" answers to become knowledgeable—and comfortable—with basic operation and keyboarding before moving on to more advanced and open-ended tasks such as selecting varied uses of graphics to illustrate ideas in a formal presentation. Following a predetermined format for a writing assignment or a chemistry lab often makes more sense than improvisation.

At other times, however, students are ready to explore the computer, craft their own essays designed to address a communication need, or create a chemistry lab that demonstrates principles of their choosing. Modeling helps most of us become confident enough to eventually "wing it." But when modeling has served its purpose, it's time to branch out and get creative.

• **Dependent to Independent.** A goal for all learners is independent study, thought, and production. But just as some students gain height more quickly than others, some will be ready for greater independence earlier than others. Their needs in developing independence generally fall into one of these four stages:

1. *Skill building*, when students need to develop the ability to make simple choices, follow through with short-term tasks, and use directions appropriately.
2. *Structured independence*, when students make choices from teacher-generated options, follow prescribed time lines, and engage in self-evaluation according to preset criteria to complete longer-term and more complex tasks.

3. *Shared independence*, when students generate problems to be solved, design tasks, set time lines, and establish criteria for evaluation. The teacher helps "tighten" or focus the plans and monitors the production process.

4. *Self-guided independence*, when students plan, execute, and evaluate their own tasks, and seek help or feedback only when needed (Tomlinson, 1993).

By guiding students across this continuum at individually appropriate speeds, you and your students are less likely to become frustrated by tasks that require greater independence.

• **Slow to Fast.** Of all the continuums, this one is the most likely to require some "jumping around." There are times when students with great ability in a subject need to move quickly through familiar or minimally challenging material.

But at other times, some of those same students will need more time than others to study a topic in depth. You can adjust the speed of learning experiences for students who are struggling with key ideas by allowing them to work more slowly at first, but then letting them move quickly through tangential areas of study, thus freeing up some time for further work with the key ideas. Matching pacing to your students' needs is a critical differentiation strategy.

Like the equalizer buttons on audio equipment, it's possible for the teacher to design lessons by "moving the buttons" on this guide to different positions for the needs of varied students.

For example, some students may be able to handle a complex, abstract, multifaceted project (buttons over to the right on Figure 8.1) if you keep the "independence" button toward the left; that is, require more "check-in" dates of them

Equalizer Troubleshooting Tips

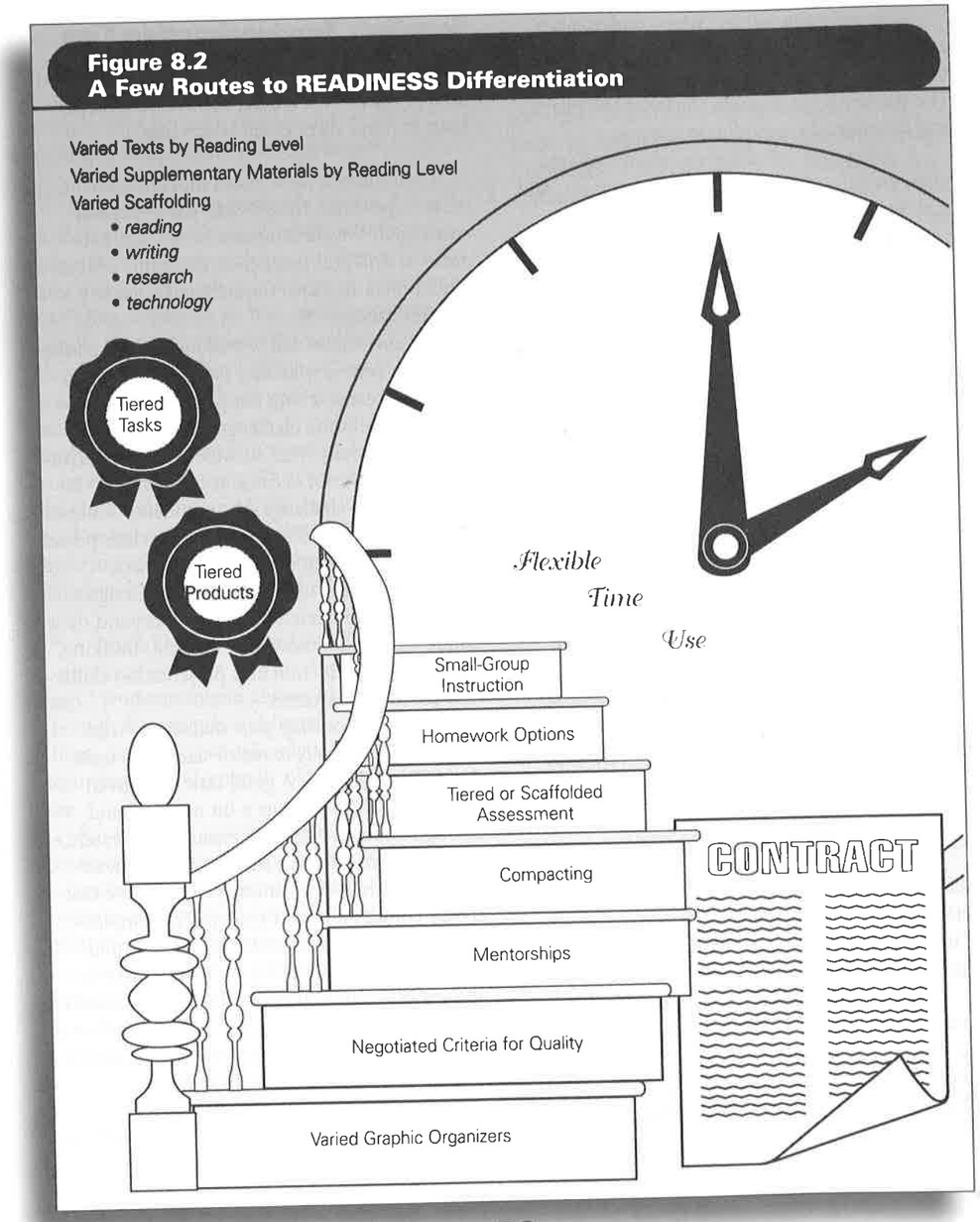
When using the heuristic guide in Figure 8.1 to modify lessons for a differentiated classroom, keep in mind three essential caveats:

1. All students need lessons that are coherent, relevant, powerful, transferable, authentic, and meaningful. We should not consign some students to drill and practice as the staple of their school diets and save the rich and engaging lessons for others.

2. A curriculum that is good for students pushes them a bit beyond what they find easy or comfortable. Our best teaching happens when we give students a genuine challenge and then help them successfully meet it. Differentiated instruction is so powerful because it offers various levels of genuine challenge. Your students' sense of self-efficacy comes from recognizing their power after accomplishing something they first thought was just "too big" for them. Design your lessons to stretch all students beyond their comfort zones in knowledge, insight, thinking, basic skills, production and presentation skills, and affective awareness.

3. Plan to encourage your students to "work up"—that is, be ready to match students to tasks that will stretch them. A good task for a given student is one that is just a bit too hard and through which the teacher ensures the presence of support required for success. We err most often as teachers by planning a single task that is easy enough for most students to complete. That has the effect of establishing both "middling" or low expectations for many learners and expectations still out of the reach of others. A task is challenging for a given student when it causes that student to stand on "mental tiptoes" and reach high to complete it well.

Figure 8.2
A Few Routes to READINESS Differentiation



albeit automatically. Use this guide when differentiating content (what you teach and what students learn), process (how students think about or make sense of ideas and information), and product (how students show what they know). Add other continuums and descriptors to this guide as your students teach you more about how to differentiate instruction.

It is also helpful to think about particular strategies for differentiating instruction in response to student readiness levels. Figure 8.2 suggests a few such strategies.

In using any of the strategies to match student readiness, you are likely to be using materials, tasks, or scaffolding that corresponds to one or more continuums on the equalizer. For example, if you bookmark various Web sites for students to use in research, then try to match the difficulty level of the various sites to the skills and understanding levels of various students, you may find that some sites are more concrete and some more abstract, or that some are simpler in writing or ideas while others are more complex.

You might also have all students use the same sites, building a support system to allow success for less-skilled readers (greater dependence), while encouraging skilled readers to work more independently. Try the combination of strategies and equalizer continuums in your own classroom.

Using Readiness to Differentiate Content, Process, and Product

Teachers can differentiate any or all of the three key components of curriculum (content, process, and product) in response to student readiness. A French teacher differentiated content for her learners by subscribing to two French language current events magazines. Students who were having more difficulty with reading and translating French used a magazine first time. Students more proficient with French translation read a magazine written for French-speaking adolescents. The two magazines generally contained many articles on the same topics, but the magazine written for French-speaking adolescents required more complex skills of translation.

A math teacher often differentiated process or activities for her students based on their readiness levels by assigning or offering homework assignments on the same topic at varying degrees of difficulty. She helped students determine which assignment would be most likely to both clarify their thinking and challenge them appropriately.

A middle school teaching team differentiated product assignments based on student readiness in a number of ways. One way was using varying portions of rubrics, or quality indicators, with different students. Each student would receive two or three columns of a five-column rubric. Each student would work with the teacher to designate their goals for the product assignment. It was the aim of the teacher to provide a student with rubric columns that seemed at or above the student's proficiency level and then guide the student in "working up" through self-selected goals in each category represented on the rubric.

When teachers use readiness level as a focus for differentiating content, process, and product, their aim is to push students just a bit beyond their particular "comfort zones" so that student work is a little too hard. They then support students in stretching to achieve a next level of competency with important skills and ideas.

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