



Indicator: All teachers differentiate assignments to provide the right balance of challenge and attainability for each student. (E11)

Explanation: Teachers should provide differentiated instruction to address diverse academic needs within classrooms. Ongoing formative assessment and a willingness to continually evolve instructional plans are keys to successful differentiation. Teachers may elect to differentiate instructional content, processes, and products for students; they should also encourage effort and persistence and structure learning environments to meet student needs as necessary. Technological tools and packages that incorporate formative assessment, are standards-aligned, and provide for multiple skill levels, can enhance teachers' capacity to provide differentiated instruction.

Questions: What are the benefits of providing differentiated instruction for students? How can teachers provide differentiated instruction that incorporates the right balance of challenge and attainability for students?

What Are the Benefits of Providing Differentiated Instruction for Students?

Learner-centered, or personalized learning refers to “a teacher’s relationships with students and their families and the use of multiple instructional modes to scaffold each student’s learning and enhance the student’s personal competencies” (Twyman & Redding, 2015, p. 3). The student is actively involved with the teacher in co-constructing their individualized learning pathway, and often through technology the location, time and pace of learning may vary from student to student (Redding, 2016). Motivational competency, one of four personal competencies within recent personalized learning frameworks¹ is critical for student success. Motivational competency refers to student engagement and persistence towards learning goals that is required for learning (Redding, 2016). Teachers can foster motivational competency by promoting a growth mindset to help students see that learning occurs through effort and persistence, by linking learning to student interests and aspirations, and by differentiating instruction (Redding, 2014). Differentiating instruction and providing assignments tailored to student interests and ability levels occur naturally within personalized learning approaches that are not strictly learner-centered, as teachers help students construct their individual learning pathways.

Differentiated instruction is “an approach to teaching in which teachers proactively modify curricula, teaching methods, resources, learning activities and student products to address the diverse needs of individual students and small groups of students to maximize the learning opportunities for each student in a classroom” (Tomlinson, Brighton, Hertberg, Callahan, Moon, Brimijoin, Conover, & Reynolds, 2003). Differentiated instruction has been shown to be effective for a wide range of students, including those with learning disabilities and those who are academically gifted, as well as within mixed ability classrooms (Tomlinson, et al., 2003; Huebner, 2010; Stavroula, Leonidas, & Koutselini, 2011). Examples of differentiated classroom practices include grouping students according to shared topic interest or ability and using students’ learning styles to design a lesson; ongoing and regular formative assessment and a willingness to make specific and continually evolving plans that connect learners to key content are always critical com-

¹Other personal competencies are Cognitive, Metacognitive, and Social/Emotional.

ponents of differentiation (Tomlinson & Imbeau, 2010; Weselby, 2014).

How Can Teachers Provide Differentiated Instruction that Incorporates the Right Balance of Challenge and Attainability for Students?

Tomlinson and Moon (2013) suggest that teachers can differentiate instruction through five ways:

1. Content: The information and ideas (based on standards) that students must master. Content can be differentiated for learners of varying mastery by designing activities based on students' level of content knowledge; for example, a teacher working with students who need to develop academic vocabulary around geological phenomena may use video images to support their understanding before moving on to complete a project focused on this topic. "Teaching up," however, is critical to differentiation, as all students are held to high standards (Stern, 2015).

2. Process: How students take in and make sense of content towards mastery. Teachers can support student learning based on individual student needs; these needs may be based on learning styles (e.g., visual vs. auditory learners) and/or level of support needed or desired by students (e.g., some students benefit from one-on-one interactions with the teacher while others may be able to progress individually).

3. Product: How students show what they know. Teachers can provide differentiation by asking students to create products that demonstrate their content mastery; examples include tests, reports, projects, presentations, etc. In some cases students can be given choices in how they demonstrate their learning; visual learners may elect to provide a graphic organizer while auditory learners may give an oral presentation.

4. Affect: The climate around teacher-student interactions. For example, a teacher recognizes that several students resist challenging tasks, and stresses a growth mindset by encouraging persistence, help seeking, and revision towards improved products, as well as the contributions of students' efforts to their success.

5. Learning Environment: The personal, social and physical classroom arrangements. For example, teachers can create flexible seating arrangements to support both individual and group work, and provide headphones and earplugs for students if they are easily distracted by small-group conversations while working alone.

While differentiation allows students to learn at their own pace and is tailored to their learning needs, it is considered to be primarily teacher-driven, as teachers strive to tailor instruction to meet the learning needs and interests of students all trying to reach the same academic goals. Personalized learning, in the strictest sense, is primarily learner-driven and may also allow students to work towards different academic goals at their own pace as they self-regulate their learning (Basye, 2014). Differentiation may be easier within blended learning models such as the flipped classroom, in which some instruction occurs online at home, leaving additional classroom time for the teacher to work individually with students and provide differentiation (Werth, Werth, & Kellerer, 2013). Differentiated instruction and personalized learning are both made easier, however, through the use of technology (Hobgood & Ormsby, 2011; Werth, et al., 2013; Doubet & Carbaugh, 2015; Stern, 2015). For example, mobile technology can allow for more frequent formative assessment, an important component of providing differentiated instruction (Doubet, et al., 2015). Students can be asked to post their reflections on their understanding of homework on Edmodo, giving the teacher opportunity to scan these reflections and determine which students will need the most assistance the next day and how much time to spend on homework review (Doubet, et al., 2015). When selecting technology tools and packages to promote differentiated instruction, educators should look for correlation with academic standards, the availability of formative assessments, and options of different skill levels within the same content (Stern, 2015).

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