

ASSESSMENT AND STUDENT SUCCESS IN A DIFFERENTIATED CLASSROOM

Carol Ann Tomlinson & Tonya R. Moon
ASCD, 2013

- Note that differentiation relates more to addressing students' different phases of learning from novice to capable to proficient rather than merely providing different activities to different (groups of) students. John Hattie, *Visible Learning for Teachers*.
- Differentiation is a teacher's proactive response to learner needs shaped by mindset and guided by general principles of differentiation.
 - An environment that encourages and supports learning
 - Quality curriculum
 - Assessment that informs teaching and learning
 - Instruction that responds to student variance
 - Leading students and managing routines.
- Teachers can differentiate through
 - *Content*: The information and ideas students grapple with to reach the learning goals; what a student needs to learn or how the student will gain access to the knowledge, ideas and skills
 - *Process*: How students take in and make sense of the content; how the student will come to master and "own" the knowledge, ideas and skills
 - *Product*: How students show what they know, understand, and can do; How the student will summatively show what he has learned
 - *Affect/Environment*: The climate or tone of the classroom; the climate that encompasses the learning and interactions among students and teacher
 - *Learning environment*: the personal social and physical arrangements in the classroom.
- According to the student's
 - *Readiness*: A student's proximity to specified learning goals
 - *Interest*: Passions, affinities, kinships that motivate learning
 - *Learning Profile*: Preferred approaches to learning
- Through a variety of instructional strategies such as
 - Compacting
 - Complex Instruction
 - Expression options
 - Flexible time spans for work
 - Graphic Organizers
 - Independent projects
 - Intelligence Preferences
 - Learning centers
 - Learning contracts
 - Menus
 - Personalized goals
 - RAFTs
 - Scaffolded reading/writing
 - Small group instruction
 - Small-group instruction
 - Synthesis groups
 - Tic-Tac-Toe
 - Tiered Assignments
 - Tri-Mind
 - Use of reading materials at varied levels of readability
 - Use of technology to assist students with reading, writing, or other learning needs
 - Varied expression options and tools for class assignments, homework and assessments
 - Work alone/with a partner/with a small group

- The goal of learning profile differentiation should be to
 - Create more ways for students to take in, engage with, explore, and demonstrate knowledge about content
 - Help students develop awareness of which approaches to learning work best for them under which circumstances
 - Guide students to know when to change approaches for better learning outcomes

(page 13)	Readiness	Interest	Learning Profile
Content			
Process			
Product			
Affect			
Environment			

- In translating for teachers his findings from over 800 meta-analyses of research on student achievement, John Hattie (2012b) reflects on key conclusions of the landmark book *How People Learn* and concludes that effective classrooms will have four defining characteristics:
 - *Student-centered*: because teaching is all about where a student is on the journey from novice to competent to proficient.
 - *Knowledge-centered*: Because there must be clear and important knowledge so students can make connections and relationships among ideas
 - *Assessment-rich*: to better understand where students are throughout the journey in order for the teacher and students to know where to go next, so that each student can move ahead from his or her starting point
 - *Community-centered*: because there is no one way from novice to proficient, teachers and students need to share and learn from one another, share the trials, tribulations, and triumphs of how each person progresses, and share the relevance of what the community’s members are aiming to learn.
- Classroom assessment is the process of collecting, synthesizing, and interpreting information in a classroom for the purpose of aiding a teacher’s decision making. Teachers use assessment to do the following:
 - Diagnose student problems
 - Make judgments about student academic performance
 - Form student work group
 - Develop instructional plans
 - Effectively lead and manage a classroom.
- The term assessment derives from the Latin “assidere,” meaning “to sit beside.”
- Two categories of formative assessment are pre-assessment and ongoing assessment
- Robert Stake: Formative assessment is taking place when a cook tastes the soup and summative assessment when the guests taste the soup.
- Assessment types
- Assessment of instruction: Summative, useful in determining the degree to which a student has mastered an extended body of content or set of KUDs at a concluding point in a sequence of learning.
- Assessment for instruction: emphasizes a teacher’s use of information derived from assessment to do instructional planning that can effectively and efficiently move students ahead from their current

points of knowledge, understanding and skill. It may also be used to understand and address students' interests and approaches to learning. It should rarely be graded

- Assessment as instruction: aim is to help students compare their work on assessments to specified learning targets so they become more aware of their own growth relative to important learning targets and develop the skills necessary to enhance their own success with the content to help their peers do so as well.
- When teachers regularly use assessment to help students develop competence and a sense of autonomy rather than to judge them, the environment feels safer and more predictable to students.

Pre-Assessment

- The most important single factor influencing learning is what the student already knows. Ascertain this and teach him accordingly. *David Ausubel*
- Before beginning to develop a pre-assessment, a teacher needs to be clear on
 - Critical vocabulary in the unit
 - Foundational insights or understandings about the meaning or significance of the unit
 - Content skills that are at the core of what students will learn to do in the unit
- Standards are ingredients for curriculum; they are not the curriculum.
- Pre-assessment samples
 - Informal/Indirect: windshield checks
 - Thumbs-up/down
 - KWL charts
 - Classroom response systems (clickers)
 - Response cards
 - Informal conversations and observations
- Direct/Formal
 - Frayer Diagrams (rectangle divided into four equal sections with an oval in center): Teacher writes a concept or topic for an upcoming unit and asks students to share their current knowledge in each of the four quadrants: Definition/Explanation, Information You Know, Examples, Non-examples
 - Systematic observation/interviews
 - Journal entries/writing prompts
 - Show and tell
 - Student self-rating
 - Quizzes
 - Interest surveys
- The same entry point for all learners is rarely warranted.
- Interest can relate to pursuits students enjoy on their own time. It is also possible to have students rank subtopics in a unit so that the teachers gets a sense of which facets of study are more likely to be inviting to some students and less interesting or even aversive to others.
- Psychology experts criticize the lack of clear definition of concepts such as learning styles and are critical of educators' use of surveys to determine strengths and weaknesses in this area because those instruments generally lack reliability and validity.
- Effective DI includes
 - Flexible groupings of students
 - Consistent use of varied pathways to accomplish important goals
 - Varied approaches to teachers

- Varied use of media to support learning
- Multiple options for expressing ideas and demonstrating learning
- Flexible use of time and resources
- Rarely would a teacher conduct pre-assessments of interests and learning profiles at the outset of every unit.
- Student interest is important in selecting examples, illustrations, and analogies that teachers might use in presenting content, in designing student work that connects with student experiences and aspirations, and in grouping students.
- In differentiating assessments, one attribute should almost always remain unchanged across all versions of the assessment: the knowledge, understanding, and skills for which students are responsible. The only exception to this guideline relates to students with IEPs that indicate a different curriculum or a different set of goals for the students. It is okay if everyone does not have the same questions, so that challenge level can match students' development, as long as both versions of the assessment measure the same KUDs.
- Ask students to submit a plan for addressing teacher feedback. Use peer and self-assessment.
- Assessment becomes formative when the evidence is actually used to adapt the teaching to meet student needs.
- Effective learners operate best when they have insight into their own strengths and weaknesses.
- Formative assessment should be a frequent feature in classrooms, perhaps occurring two to five times a week in a content area.
- Educative assessment is deliberately designed to teach and not just to measure. It provides rich, useful feedback to teachers and students and it prompts use of that feedback to improve learning. It enables both teachers and students to self-assess accurately and to self-correct their own performances increasingly over time.
- Formative assessment: a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcomes.
- Hattie: Formative assessment has an effect size of .9
- Hattie proposes that feedback is more powerful when it is sought by the teacher about his or her teaching than by the student about his or her learning.
- Teachers grow as professionals when they examine assessment outcomes to
 - Understand the quality of data obtained from the assessment
 - Examine the degree to which students mastered the instructional goals
 - Look for indications that there were misunderstandings or misconceptions created or sustained as a result of instructor
 - More accurately reflect on their own teaching effectiveness.
- Routinely grading formative or ongoing assessments predictably impedes learning in three ways
- It misrepresents the learning process to students, leading them to conclude that making errors is cause for punishment rather than an opportunity to improve.
- It focuses students more on getting good grades than on learning
- It makes the classroom environment seem unsafe for many students and would make it seem unsafe to more students if classwork were appropriately challenging for the full range of learners.
- Attributes of effective feedback:

▪ Clear	▪ Specific	▪ Timely
▪ Builds trust	▪ Focused	▪ Invites follow-up
▪ User-friendly	▪ Differentiated	

- Formative assessment needs to happen with students, not to them.
- Students can assess themselves only when they have a sufficiently clear picture of the target their learning is meant to attain. Surprisingly and sadly, many students do not have such a picture. When students do acquire such an overview, they either become more committed and more effective as learners.
- When teachers establish clear curricular goals and use formative assessment to understand the status of their students relative to those goals throughout a learning sequence, differentiation is simply what comes next.
- It is important to recall that virtually all student work can be used as formative assessment – a reminder that the format is not as important as the intent for and the use of what students produce.
- Direct/Formal Strategies for Ongoing Assessment
 - Graphic organizers
 - Exit Cards
 - 3-2-1 Cards
 - Entry Cards
 - POE Exercise: Predict, Observe, Explain
 - Whip-arounds
 - Windshield checks: Describe current stats with topic (clear, buggy, mud-covered)
 - Homework
 - Quizzes
 - Weather check: sunny, few high clouds, fog
- When goals are unclear or insipid, teaching is poorly focused, learning is diminished and assessment information that should inform instruction is relatively useless.
- The Ds can and should include basic skills, critical and creative thinking skills, skills of a particular discipline, skills of collaboration, production skills, and skills of independence (such as metacognition, planning, using criteria to assess progress, developing useful questions, using resources to find valid information). Complex content standards such as common core standards and IB standards call on most, if not all of those categories of skill.
- Curriculum that is framed around KUDs is better organized for teaching and learning, more likely to be relevant to students, and more assessment-ready than curriculum that is simply a list of standards, the contents of a textbook, or a series of activities.
- Viewing learning on a novice-to-expert continuum that builds over time rather than being constrained by a specific set of grade-level standards is a concept based on Vygotsky's Zone of Proximal Development.
- To promote learning, ongoing assessment requires three elements
 - Clear learning goals
 - Information about the learner relative to those goals
 - Action to close the gap
- Summative assessments can and should take place multiple times during a marking period and in multiple forms.
- Formats for assessment of learning
- Traditional paper and pencil assessments (closed tasks – multiple choice, true/false, interpretive items)
- Performance assessments (essays, extended projects or products, portfolios, performance tasks)
- Indicators of Quality Summative Assessments
 - The assessment mirrors the learning goals
 - The content of the assessment reflects the relative importance of each learning goal.
 - The format of the assessment is aligned with the cognitive level of the learning goals.
 - The range of knowledge indicated by the learning goals is the range of knowledge reflected in instruction, which, in turn, is the range of knowledge needed to appropriately respond to assessment items.

- An assessment should not require students to have specialized knowledge, understanding, skill or resources beyond what is targeted by the learning goals and is taught or available in class.
- Has a format consistent with the time available for students to complete it
- Reliability refers to the stability of a measure in obtaining the same results over time or in varied settings
- Validity refers to the degree of confidence that an assessment actually measures what it is intended to measure
- Construct irrelevance causes some students to fare poorly on an assessment not because they don't understand the stated learning goals, but because the assessment requires them to know or do something beyond the scope of their experience.
- Summative Assessment and Student variance: Three principles
- Differentiated assessments should focus all students on the same essential learning goals (KUDs) with the exception, again, of students whose IEPs indicate alternative goals
- Students should be assessed in ways that allow them ample opportunity to demonstrate their knowledge, understanding and skills.
- The scoring system used for evaluating differentiated assessments should be the same regardless of the type of differentiation.
- Summative assessments can and should take place several times, at summing-up points during a unit of study.
- When summative assessments are differentiated, the various versions should
- Keep the KUDs constant for all versions. Be designed to open up the assessment process so that all students have a chance to demonstrate their knowledge, understanding and skill
- Use the same scoring system regardless of the type of differentiation.

Grading

- A grade is an inadequate report of an imprecise judgment of a biased and variable judge of the extent to which a student has attained an undefined level of mastery on an unknown proportion of an indefinite amount of material. (Paul Dressel)
- Grades are used for multiple purposes
- Ranking students
- Motivating students to learn or punishing them
- Grouping, sorting or placing students in classes
- Providing teachers with information for instructional planning
- Teacher and program evaluation.
- Using grades for all of these purposes calls into question the validity of the grades for any of the purposes. The swamp created by multipurpose grading makes it almost impossible for parents or students to be clear on what students know, understand, and can do at a give time relative to specified goals or to use that insight to support student learning.
- The difference between a score on an assessment and what a student really knows, understands, and can do related to that topic is called error.
- Reliability raises the question of consistency or stability of results. The more stable or consistent a student's score on multiple assessments on the same KUDs, the more reliable the measure, and the greater confidence teachers can have in the inferences they draw from the assessment.
- Validity defines whether an assessment accurately measures what the teacher intends it to measure.

- Differentiation proposes that classroom practices, including assessment and grading, should be designed to contribute to a growth mindset in students and teachers
- Differentiation exists to keep students' success-to-effort ratios in balance. That is, students at all levels of proficiency clearly see that their hard work generally leads to viable success.
- Differentiation proposes that a sense of team, community, or collaboration is integral to students' success – that students and teachers work together respectfully to support maximum growth for all.
- Guiding Principles for Effective Grading Practices
- Base grades on clearly specified learning goals
- Use grades that are criterion based, not comparative or norm based
- Don't overgrade student work
- Use only quality assessments
- Reduce grade fog
- Eliminate mathematical grade fog (zeros, averaging, equal weighting)
- Grade more heavily later in a grading cycle rather than earlier
- When it is time for Report Cards, Use 3-P Grading (Separate grades for performance/product, process, progress).
- It is not possible to observe effort accurately, and we cannot or ought not try to grade what we cannot observe. In the context of 3-P grading, there is a vocabulary shift from effort to process.
- Open Up the Assessment and Grading Process Students should be able to connect the dots between their learning goals, their work in class and at home, summative work, grades and reporting.
- In reality, grades often reinforce a sense of hopelessness in struggling learners, motivate students with good grades to get more good grades rather than to learn, and appear irrelevant to students who have their own agendas.
- *Page 139 scenario*