

## REFEREED ARTICLE

### Differentiating Assessment in High School

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#### **Abstract**

*This article evaluates how to implement differentiated assessment effectively in a high school setting. Differentiated assessment is vital for encouraging students to express their understanding of outcomes. In early and middle years education, differentiated assessment is quite common. In high schools, a lecture and worksheet followed by a test environment can be more commonplace. With appropriate rubrics, differentiated assessment can provide all students with the opportunity to choose a preferred method to express their understanding. Such an environment fosters creativity and encourages all children to think outside the box.*

### Differentiating Assessment in High School

The increase in diversity among children in schools obligates educators to embrace differentiated instruction and assessment at all grade levels. This can be challenging as students reach the higher grades where tests and essays are common assessment strategies. Students are often subjected to tasks that require memorization rather than demonstrating creativity and long-term understanding. Teachers can provide students with alternative ways to express their understanding by incorporating rubrics, promoting inquiry, and providing students with choice by encouraging summative projects. Classroom environments that encourage students to find creative methods to demonstrate their understanding foster creativity.

#### **Examining Alternative Strategies**

Differentiated assessment is common in early years and middle years education.<sup>1</sup> Tests, essays, and exams are common measures for establishing percentages in high school. These assessment strategies provide a raw score that is useful when calculating the final averages needed for university entrance and scholarships. A concern is that students often prepare for a test or exam by “cramming.” Another assessment provided shortly after the cram session could yield a lower mark, demonstrating that the student learned the material for the test but did not develop a deep understanding of the content. High school students are overwhelmed with many courses that contain a great deal of content. Teaching to a test or exam is efficient, but it is not necessarily an effective strategy. Teachers must foster critical thinking and recognize that “individual needs, strengths and weaknesses must drive instructional and assessment practice” (Watson, 2017, para. 2). As an alternative, assessment can be “process-oriented, and multi-modal” (Katz, 2012, p. 145). Teachers can encourage students to investigate a topic independently by using a variety of methods of expression. A well-developed rubric can be used as a tool to evaluate differentiated assessments in high school.

#### **Providing Rubrics**

Teachers can provide rubrics to guide student thinking. A rubric is a “visual narrative of the criteria that defines and describes” (Balch, Blanck, & Balch, 2016, p. 20) the learning that must

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<sup>1</sup> Unless otherwise specified, the information in this article is from the author’s 14 years of experience teaching middle and senior years math, science, and French.

be demonstrated on an assessment. With a well-constructed rubric, students “enter on any given topic at different points along the continuum” (Katz, 2012, p. 74) and leave at different places. Rubrics are sometimes created with a style that categorizes performance by using quantitative descriptors such as “all,” “most,” “some,” and “none.” These descriptors can be subjective and do not provide information about the skills that the student is demonstrating. An alternative approach could be to incorporate qualitative descriptors that include curricular outcomes and Bloom’s taxonomy adjectives (Katz, 2012). Bloom’s taxonomy provides a list of adjectives that indicate distinct levels of complexity. In a rubric form, these descriptors inform students of the level of understanding they are currently demonstrating and what they need to do to demonstrate a higher level of comprehension. A rubric should also contain positive language that measures “key aspects central to the quality of performance” (Balch et al., 2016, p. 23), rather than the quantity of the content provided. Appropriate rubrics, with categories ranging from beginning understanding to exceeding expectations, are appropriate tools for guiding student thinking.

The top level of a rubric should be a category for exceeding expectations. The descriptors can include the higher cognitive domain descriptors from Bloom’s taxonomy, such as “formulates,” “designs,” and “analyzes” (Katz, 2012, p. 73). Student achievement is not limited with a well-constructed rubric. With an entire section for exceeding expectations, students can explore extensions with their research. Rubrics can be used efficiently in high school if they are descriptive and the teacher and students have a clear understanding of how a numerical mark will be generated from the rubric. Including a category for exceeding expectations can be an excellent tool for assessing inquiry projects and other open-ended activities.

## **Using Inquiry Projects**

Inquiry projects provide students with a challenging way to explore their own questions and seek their own answers. Teachers can encourage students to complete open-ended projects, rather than adopting a practice of using a written test. After sufficient learning of the curricular outcomes, students can be provided with the challenge of generating their own inquiry questions based on the content explored in a unit. Through experimentation and investigation, students can seek answers to their inquiry questions and formulate extensions by using various degrees of independence in real-world applications.

Inquiry projects can be designed by using varying amounts of guidance and independence. Teachers release responsibility gradually by initially providing students with guided questions and procedures. This is called guided inquiry. After demonstrating a proficient understanding of the scientific method or research requirements, students begin to explore questions on their own. This is called open inquiry. A transition from guided inquiry to open inquiry must be deliberate. Teachers need to help students “advance gradually from a structured inquiry, through to guided inquiry, and up to the level of open inquiry” (Zion & Mendelovici, 2012, p. 388). Students need to be familiar with the inquiry process before they are left to their own methods for practising “their investigative skills” (Nivalainen, Asikainen, & Hirvonen, 2013, p. 452). It is also important for students to have received teacher feedback from smaller projects so that they have an idea of teacher expectations. While working on an open inquiry project, students develop the project “from the stage of choosing an intriguing phenomenon, and through asking inquiry questions and beyond” (Zion & Mendelovici, 2015, p. 388). Inquiry projects provide learners with the opportunity to choose their own topics of investigation and seek their own answers to these problems. The complexity involved with an open inquiry activity makes it necessary for students to have had enough practice. A high school semester provides sufficient time for teachers to instruct about inquiry. It also provides enough opportunity for teachers to help students develop the necessary skills to investigate open-ended problems (Chung-Hsien, Hsiao-Lin, & Chi-Chin, 2013). Teachers can promote varying degrees of

independent learning in their classrooms by encouraging students to choose their own inquiry topics for investigation.

### **Providing Choice**

Choosing a summative assessment format can increase student engagement. Choice provides a selection of presentation formats through which they can communicate their learning. Inquiry projects should be made “personally meaningful to students’ goals, interests, and values” (Williams, Wallace, & Sung, 2016, p. 530). Incorporating a student’s learning style provides an opportunity to ascertain what a student understands. A final assessment needs to provide the opportunity for “students to show what they have learned or to demonstrate mastery of the important concepts” (Katz, 2012, p. 73). Rather than writing a summative test, students might make deeper connections and express themselves by using other tools. For example, students can present information visually by using diagrams, infographics, and graphs. Students who develop the skills for interpreting information visually, and “who receive supports for comprehending visualizations” (Cromley et al., 2016, p. 1211), could demonstrate a higher level of comprehension. Students are more engaged in their learning when they can express their understanding by choosing from a variety of modalities.

### **Planning for Assessment**

Choice alone is not an appropriate solution for encouraging alternative methods for assessment. Teachers need to be mindful that “choice during instruction does not equate to letting students do whatever they want” (Williams et al., 2016, p. 544). The focus in the classroom needs to be on encouraging students to discover a presentation format with which they can best express their understanding. Inquiry projects, presentations, and laboratory experiments are examples of choices that permit “students to self-regulate their own learning” (Williams et al., 2016, p. 544). This environment also provides the opportunity for collaboration. Teachers need to encourage students to choose appropriate assessment formats, so that they incorporate suitable presentations that express their understanding.

Providing students with choice in high school is necessary so that students know how to express themselves as they enter the work place and post-secondary education. The opportunity for students to present their understanding in a variety of ways can increase “task performance, effort, (and) willingness to subsequently engage in the task” (Williams et al., 2016, p. 530). Not every individual will be a master of writing a paper or completing a test or exam. These tools do not necessarily provide enough opportunity to understand the connections a student has made. Teachers need to provide enough differentiation to “create individualized programs of instruction” for students at all levels of ability (Donovan & Shepherd, 2013, p. 9). Classrooms need to be a place wherein students can learn how to express themselves by using a modality that best suits their personality and creativity. Students who receive supports for comprehending visualizations can improve their comprehension.

Creating an environment wherein inquiry is a focus can be engaging for all learners. A range of students, from those who experience challenges to those who are gifted children, can find appropriate means to express their understanding through inquiry. Presenting students with “open, authentic tasks with high levels of abstraction and complexity” (Eysink, Gersen, & Gijlers, 2015, p. 63) provides everyone, regardless of ability, with the opportunity to pursue their curiosities. In an inquiry-based classroom, students can “regulate their learning by planning, monitoring, and evaluating” (Eysink et al., 2015, p. 64) their progress. With careful planning, teachers can create an engaging environment wherein the focus is on inquiry for all students.

## Conclusion

As students reach the higher grades and prepare for university, it is common to see testing and examination being used as primary assessment tools. In high school, a wonderful opportunity exists to expand the repertoire of assessments in order to encourage students to rely less on rote memorization. It might take time to establish rubrics for higher level classes, but it can be done. Appropriate rubrics provide detailed descriptions of what students need to do to meet course outcomes. Rubrics also provide indicators for how it could be possible to go above and beyond the expectations of the curriculum. Open inquiry projects are one way to evaluate student learning by using rubrics. Task-oriented projects and laboratory investigations can take the place of tests and serve as a component of a final exam. With increasing diversity in classrooms, it is vital for high school teachers to encourage students to explore different modalities for expressing their understanding. Fostering this kind of a learning environment can increase student engagement and can help students find ways to express themselves as they pursue post-secondary education and join the workforce.

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## About the Author

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