Rachel Healy
Assessment System Overview
Spring 2021

Healy Rubric

Unit LTs
Unit Propositions
Formative Assessment
Formative Assessment Graphic Organizer
Formative Rubric/Self Assessment
Summative Assessment
Data Tracker

How did you generate criteria for the assessment?

For both the formative and summative assessments, I used the "Assessment Development Cycle" to determine what the assessment would look like and what it would include, as outlined below:

1. Determine intended users and uses of assessment

Formative:

- For me to diagnose instructional needs prior to instruction
- For students to self-assess and set goals for next steps

Summative:

- For me to measure level of achievement for reporting on report cards
- For me to offer feedback to students

2. Identify and classify learning targets to be assessed

Formative:

I can explain how a force or lack of force will affect the motion of an object. (Reasoning-Inference)

Summative:

I created the following blueprint to classify learning targets and determine sample size.

Blueprint for Grade 5 Science Quiz (force and motion)

Learning Target	Target Type	#K	#R
*I can identify different types of forces.	Knowledge	3	
*I can explain how a force or lack of force will affect the motion of an object.	Reasoning - Inference		3

I can classify balanced and unbalanced forces.	Knowledge Reasoning - Classification		2
I can make predictions about what would happen to the motion of an object if the forces acting on it became unbalanced.	Reasoning - Inference		2
I can analyze how the strength of a force will affect the change in motion of an object.	Reasoning - Analysis		2
I can analyze how the mass of an object will affect its change in motion.	Reasoning - Analysis		2

3. Select appropriate assessment method

Formative:

I decided to incorporate the scientific method (ask a question; form a hypothesis; make a prediction based on the hypothesis; test the prediction; use the results to make a new hypothesis or prediction) into this unit. Because this formative assessment focuses on the last step of this process (use the results to make a new hypothesis, e.g. iteration) and measures a reasoning target, I decided the best fit would be a Constructed Response using words and diagrams.

Summative:

Because my target types were a mix of knowledge and reasoning, there were multiple assessment methods that could be a good fit. I opted for Selected Response with a mix of multiple choice, matching, and fill in the blank because they are a strong match to test whether "students can dip into their foundations of knowledge and reason with it to arrive at a best answer" (Chappuis, 115).

While Constructed Response might also have been a good match, this class has several students who face barriers (both cognitive and EL) that make informative writing a challenge. I decided that those barriers might keep them from accurately demonstrating their knowledge. I decided that Selected Response, incorporating visuals and with the questions read aloud, would be a more accurate way of assessing these targets.

4. Determine appropriate sample size

Formative:

For this assessment I incorporated three criteria into the rubric for a successful assessment. I felt these criteria would be most helpful to assessing student understanding and determining where to focus future lessons.

Summative:

See the blueprint above. I chose the sample size for several reasons: I want to include enough questions to get accurate data, without overwhelming students. Because the targets were

constructed to be specific and achievable, I can collect accurate data with fewer questions. The two priority targets (marked with an *) are weighted more than the other targets.

5. Develop or select items, tasks and scoring procedures

Formative:

The content of this assessment was determined by the learning targets and the unit progression; it follows a class in which students participated in various “inertia station” demonstrations/experiments.

Summative:

See the partial list of “unit propositions” I created from which to draw questions. I attempted to create about twice as many propositions as items I would need. In the future, I would like to include student input here by having students suggest items to include on the quiz as an exit ticket at the end of the unit.

How did/would you make the use of it and your expectations clear to your students?

Formative:

Students were given a rubric for self-assessment and reflection alongside my assessment. They were also asked to set a goal for themselves, and ask any questions they needed to better understand the content.

Summative:

I will let students know a day in advance that they will be taking an end-of-unit quiz and that the score will be part of the body of evidence for their end-of-semester grades and conferences. The quiz states the value of each question.

Long-term and daily learning targets will be written on the white board for every class. Assessments will also include the relevant learning target, using consistent language so students can see what is being measured.

How do your assessments provide options for the range of learners in your class?

Formative:

Students were able to choose among three different demonstrations that they would like to explain, and to use both written words and diagrams to demonstrate their learning.

Summative:

The quiz includes several different types of questions. Many of the questions have visuals for students with comprehension barriers. I will read the questions aloud to all students.

What is your mechanism for tracking data? How does that mechanism involve your students?

For this assignment, I created a data tracker that is matched to the Learning Targets and to each assessment that will be used during the unit. Formative assessments will get a raw score based on the number of questions answered correctly, or a 1-3 score based on a rubric (see example formative assessment). The summative assessment will get separate raw scores for each learning target based on the number of questions answered correctly, as well as a total raw score

Hypothetically, I would share this tracker with students (only their own scores) in order to allow them to track their own progress. In my actual classroom, we use JumpRope to track student scores by learning target and assignment, and students and their parents have access to their scores.

How did/would/will you offer feedback to students? How will that feedback guide their learning?

As mentioned above, long-term and daily learning targets will be written on the white board for every class. Assessments will also include the relevant learning target, using consistent language so students can see what is being measured.

Formative:

Students were given a rubric for self assessment. After they filled it out, I added my score. After we both filled out the rubric, I called each student to my desk to have a quick one-on-one discussion about what they did well and goals for improvement, and to answer any questions they had that could be answered in a one-on-one discussion. I will also try to answer their questions in the whole class setting when appropriate.

Summative:

The quiz is organized by learning target. Once I score the quiz, raw scores for each learning target as well as a total raw score will be noted in the tracker. Students can then choose to retake any or all of the sections (using alternate questions) during a future movement break. If students plan to retake any or all of the quiz, I will ask them to meet with me first to tell me their plan for how they will prepare differently this time.

How will these assessments help them take ownership of their learning?

Formative:

Using the rubric, students will self-evaluate their work and identify a goal for continued improvement. And, they will be able to ask me any questions that would help them better understand the content.

Summative:

Because the questions and data tracker are organized by learning target, students will be able to see where they have met their goals and where they can improve. They will have a choice of what, if any, sections to retake, and they will make a plan to prepare for the retake.

As mentioned above, I would also like to involve students in writing assessment questions in the future. This could take the form of suggesting proposition statements via an exit ticket. I would use these suggestions to develop one or two of the quiz questions.

Once you have data, how did/would/will use it to plan differentiated instruction? For students who are on target, below target and beyond the target?

Throughout the unit, individual and collective formative assessment data will help me identify patterns across the class as well as areas where particular students are succeeding or struggling. I will adjust future lessons based on what I know.

For example, on a class-wide level, if several students are struggling with a particular lesson I will spend more time on that topic and look for ways to teach it differently. If a lesson that incorporated a particular strategy (e.g. Socratic Discussion) was followed by consistent high scores, I will utilize that strategy in future lessons. Conversely, if a particular strategy was followed by consistent low scores, I would probably not use it again during this unit.

On an individual level, if a student is not meeting a goal, I would incorporate more one-on-one time with that student to clarify any misconceptions. I would offer choices during lessons that matched that student's needs/abilities/learning style; for example, if a student with reading barriers is not grasping the concept of unbalanced forces, I might offer a station that includes visuals and a physical model of the concept. I would also make sure that they had an opportunity to demonstrate their understanding that matched their needs, such as explaining it verbally or drawing a diagram.

For students who are beyond the target, I would also include choices - both during class time and as assessment products - that require a higher level of cognitive skill (e.g. creating a model to demonstrate and analyze force.) I would also offer extension activities such as online modeling programs that deepen student understanding and broaden their familiarity with how this knowledge is applied.

Beyond adjusting future lessons while teaching this unit, I will also use the collected data to make decisions about how to teach this unit in the future: what went well, what should be adjusted, where to spend more time, etc.