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CEP813_Rubric 3.0

*New items are identified with an asterisk

Skill	Complete Understanding 2 points	Partial Understanding 1 point	No Understanding 0 points	Teacher Comments
1 *Feedback is timely (formative assessment component)	Feedback is provided to students early enough that students can act on that feedback to improve their work before submission of a final project. Feedback may include verbal feedback or it may include formal checks for understanding, such as digital quizzes, science notebook entries, or written quizzes. If students receive summative feedback (or a grade) that they are not satisfied with, they may rework portions of their project and resubmit it for a better grade. In the case of a written examination, students who perform poorly can have the opportunity to study more and retake the test, transforming the summative assessment into a formative assessment.	Feedback is provided to students before submission of a final project, but students may not have enough time to improve their work based on that feedback. Feedback is verbal, and does not include formal checks for understanding, such as digital quizzes, science notebook entries, or written quizzes. If students receive summative feedback (or a grade) that they are not satisfied with, they may rework portions of their project and resubmit it for a better grade, but may lose credit as compared to the first attempt. In the case of a written examination, students who perform poorly have the opportunity to study more and retake the test, but may lose credit as compared to the first attempt.	Written feedback is provided to students only after the submission of a final project. Students do not have time or opportunity to act on that feedback to improve their grade. Neither projects with rubrics, nor written examinations, can be resubmitted for a better grade.	
2 Direct and specific feedback	Summative feedback to students is written, provided in a timely manner, is specific to the student (does not compare students with each other), gives specific advice for improvement on future projects, AND rubric criteria describes degrees of proficiency along a continuum. Even if the student performed well (met highest standards and	Feedback is written and provided in a timely manner. Feedback compares student's work with that of other students OR does not give specific advice for improvement on future projects OR rubric criteria does not describe degrees of proficiency along a continuum.	Feedback is not given in a timely manner, it compares students to each other, does not give specific advice for improvement. Feedback compares student's work with that of other students AND does not give specific advice for improvement on future projects AND rubric criteria does not describe degrees of proficiency along a continuum.	

	earned a good grade), feedback for improvement on future projects is still provided.			
3 ***Aligns with Established Goals**	Established Goals (content standards, course objectives, learning outcomes) are identified. From those established goals, short-term, lesson- and unit-specific goals are identified. Criteria for the assessment align with short-term, lesson- and unit-specific goals.	Established long-term goals are identified. Rubric criteria align with long-term, established goals. Short-term, lesson- and unit-specific goals are not identified.	Goals are not identified, nor are they used to establish rubric criteria. Rubric criteria are written based on activities, rather than goals.	
4 **Transparent learning targets**	Learning targets are provided to students at the beginning of the assessment process, and are made available to them throughout the process. Learning targets are discussed verbally as a whole group. If students wish to discuss learning targets, teacher is willing to provide clarification. Learning targets are in writing, written at a level that all students can read, or accommodations are made to assist students with reading the learning targets. Learning targets are posted in the classroom or in students' work folders or are available in the learning management system that is used in the class.	Learning targets were provided to students after the assessment process had already begun. Learning targets are discussed verbally as a whole group. If students wish to discuss learning targets, teacher is willing to provide clarification outside of class time. Learning targets are in writing, written at the appropriate reading level for most students. Learning targets are posted in the classroom or in students' work folders or in the learning management system.	Learning targets are expressed verbally only, OR learning targets are in writing but are not provided to students until after the completion of the assessment.	
5 **Self-assessment component**	The assessment instrument requires students to assess their own work, using clear criteria, and to defend their assessment with evidence. The self-assessment may be done using the same tool the teacher uses, or may be done using a separate tool.	The assessment instrument requires students to assess their own work, using clear criteria, but does not require students to defend their assessment with evidence.	The assessment instrument does not require students to assess their own work.	

	Language is clear and written at a level that all students can understand, or accommodations are made to assist students with completing the self-assessment rubric.		
6 **Requires only target knowledge, skills, and abilities (KSAs) to complete**	The assessment includes minimal (0-2) non-target KSAs (e.g., reading or typing), based on a review of which KSAs are necessary to demonstrate proficiency of a learning target. If non-target KSAs are included in the rubric, accommodations are made and accompany the assessment, such as additional illustrations, text translations (especially if done on a digital device), voice-to-text typing, or read-alouds.	The assessment includes 3 or more non-target KSAs (e.g., reading or typing), based on a review of which KSAs are necessary to demonstrate proficiency of a learning target. If non-target KSAs are included in the rubric, accommodations are made and accompany the assessment, such as additional illustrations, text translations (especially if done on a digital device), voice-to-text typing, or read-alouds.	Based on a review of which KSAs are necessary to demonstrate proficiency in a given criteria, the assessment includes non-target KSAs without accommodations.	
7 **Requires transfer of knowledge to demonstrate understanding**	The assessment requires students to demonstrate their understanding using an authentic performance task that includes one or more of the six facets of understanding: can explain, can interpret, can apply, have perspective, can empathize, have self-knowledge.	The assessment requires students to demonstrate their understanding, not through an authentic performance task, but by answering questions on a paper-and-pencil assessment.	The assessment does not require students to demonstrate their understanding through an authentic performance task or in a written assessment.	
8 ***Social component**	The assessment includes a small group (2-4 students) component in which students work collaboratively to complete an active learning task across multiple class periods. This task does not have a pre-determined solution, but is one in which students must solve an open-ended problem without one right answer. As part of the assessment, students must navigate social situations such as	The assessment includes a small group (2-4 students) component in which students work collaboratively to solve a problem with a single right answer. Students have little autonomy as to how the task is to be completed. Group roles, if applicable, are assigned to the students. Students have little need to navigate social situations, such as determining a course of action or helping a group member	The assessment does not require students to work collaboratively in a group. All work is done independently.	

	determining a course of action, assigning group roles, or helping an absent group member understand or catch up.	understand or catch up.		
9				
10				

*1: Feedback to students is timely to allow students to act upon it

Feedback should be provided early enough that students can act on it. That feedback can be provided to students during formative assessment (formal or informal), which reveals students' progress toward a learning goal, their thought processes, and possible misconceptions (Trumbull & Lash, 2013, p. 2).

As contrasted with summative assessments which are "post-learning, after all is said and done" (Wormeli, 2010), formative assessments have a great impact on student achievement and provide useful and timely feedback to the teacher (Wormeli, 2010). Teachers typically spend most of their time developing summative assessments, Wormeli says, but the value of formative assessments should not be underestimated. Teachers should focus also on formative, ongoing assessment with checkpoints along the way and descriptive feedback. Teachers should ask three questions of students: (1) What was the goal? (2) Where are you in relation to that goal? (3) How can you close the gap? In addition to informal formative assessment, there should also be several formal checks for understanding and feedback to students. Assessments followed by descriptive feedback have a much greater impact on understanding (Wormeli, 2010).

Timing of feedback provided about the task is important, Hattie and Timperley (2007) note. It can be most effective and powerful during the task acquisition process. It can get diluted, however, if it also includes feedback about self as a person. In my experience, especially teaching coding, there are a lot of instances where students are learning a new coding skill. I give a lot of feedback about the correctness of using blocks of code to accomplish certain coding objectives. In the past I have not been careful or extremely observant about what other feedback, such as feedback about the student as a person, that I was giving. In the future, I will be more aware of that and try to avoid that tendency.

Evidence for complete understanding

Feedback to students is provided early enough for students to be able to act upon it to improve their work. Feedback may be verbal or written. If students receive summative feedback, as a project rubric or a test that they are not satisfied with, they may redo their work and resubmit for a better score.

Evidence for partial understanding

Feedback to students is provided before project submission but does not allow the student enough time to revise their work. Feedback may be verbal or written. If students receive summative feedback as a project rubric or a test, that they are not satisfied with, they may redo their work and resubmit for a better score, but that score may not be as high as it would have been initially.

Evidence for no understanding

Feedback is provided to students after the final project submission. Students do not have the opportunity to resubmit their work for a better score.

2: Feedback to students is direct and specific

According to Black and Wiliam (1998), feedback to students should focus only on the work of that student and should not involve comparisons with the work of other students. These kinds of comparisons can be damaging to students' self-esteem and turn the focus of the class toward competition, rather than collaboration and an emphasis on improving learning.

Black and Wiliam (1998) further point out that feedback to students should be direct and specific, giving advice to students so they know what can be improved. This leads students to believe that they have the ability to improve. When they receive low marks and vague feedback, they are led to believe that they lack ability and that the circumstances of their performance are beyond their control.

Criteria in analytic rubrics, Wiggins and McTighe (2005) point out, should be independent and should "describe degrees of quality, proficiency, or understanding along a continuum" (p. 173).

As a teacher, I notice that students sometimes view themselves as "smart" or "not smart," "talented" or "not talented." By providing them with specific feedback that is directly related to their own performance, students develop a growth mindset. In other words, they learn that they can improve regardless of where they started.

Evidence for complete understanding

Feedback to students is written, provided in a timely manner, is specific to the student (does not compare students with each other), gives specific advice for improvement, AND rubric criteria describes degrees of proficiency along a continuum. Even for highest performing students, specific feedback is provided for improvement on future projects.

Evidence for partial understanding

Feedback to students is written and provided in a timely manner. Feedback compares student's work with that of other students OR does not give specific advice for improvement on future projects OR rubric criteria does not describe degrees of

Evidence for no understanding

Feedback is not given in a timely manner, it compares students to each other, does not give specific advice for improvement.

*3: Assessment aligns with Established Goals

As part of effective assessment design, Wiggins and McTighe (2005) tell us that Stage 1 of assessment design is the identification of Established Goals, or Goals for short. Goals include "formal, long-term goals, such as state content standards, district program goals, departmental objectives, and exit-level outcomes" (p. 58). These goals provide the rationale for short-term,

unit- or lesson-specific goals. Teachers prioritize what to teach or leave out, and what to minimize or emphasize based on goals (Wiggins and McTighe, 2005).

Despite the importance of backward design and the necessity of identifying goals, in a study conducted by van den Berghe, Ros, and Beijaard (2013), "Most teachers could not report specific learning goal(s) for the observed lesson" (p. 351).

Evidence for complete understanding

Established goals are identified, and used to develop short-term, lesson- or unit-specific goals. Those short-term goals are used to develop learning targets.

Evidence for partial understanding

Established goals are identified and used to develop learning targets. Short-term goals are not identified.

Evidence for no understanding

Goals are not identified. Learning targets are developed based on activities.

4: Learning targets/criteria are transparent

Students should have access to the criteria by which they will be graded. When criteria are transparent, "this satisfies a basic fairness principle," (Shepard, 2000, p. 11), allowing students to achieve excellence by knowing what the standards require. Conversely, according to Black and Wiliam (1998), when students do not have a clear picture of their learning targets, "they appear to become accustomed to receiving classroom teaching as an arbitrary sequence of exercises with no overarching rationale" (p. 143). Having transparent criteria also allows for self-assessment by the student, which is identified as Skill 3 in this rubric.

I have noticed that when students have clear expectations laid out for them, it actually takes the guesswork out of what they need to do and prevents a lot of questions from being asked of me, the teacher. Students do not need to ask or guess what quality work looks like because clear guidelines have already been laid out for them.

Evidence for complete understanding

Learning criteria are discussed verbally and are in writing, available to students from the beginning and throughout the assessment process. Learning criteria are posted in the classroom, in students' work folders, or in the learning management system that is used in the class.

Evidence for partial understanding

Learning criteria are in writing, but were provided to students after the assessment process had already begun. Learning criteria are not posted in the classroom, in students' work folders, or in the learning management system that is used in the class.

Evidence for no understanding

Learning criteria are not available to students.

5: Component of self-assessment by student

When students have the opportunity to assess their own work, the criteria of the assignment and the feedback from teachers and peers becomes more important than the grade alone (Shepard, 2000). Students and teachers are able to develop a collaborative relationship in which students take responsibility for their own learning, appreciating "that standards are not capricious or arbitrary" (p. 12). Further, students become very honest about their own work and are prepared to defend their work with evidence (Shepard, 2000).

In my teaching experience, when students assess their own work, they use what they discover to improve their own work. On their own, they iterate on their projects and make improvements.

Evidence for complete understanding

The assessment instrument requires students to assess their own work, using clear criteria, and to defend their assessment with evidence.

Evidence for partial understanding

The assessment instrument requires students to assess their own work, using clear criteria, but does not require students to defend their assessment with evidence.

Evidence for no understanding

The assessment instrument does not require students to assess their own work.

6: Requires only target Knowledge, Skills, and Abilities (KSAs) to complete

One approach to creating valid and fair assessments is to require only target knowledge, skills, and abilities (KSAs) to complete the assessment. Assessment designers first identify what evidence is needed to judge whether students have demonstrated specified aspects of learning. After determining what knowledge, skills, and abilities (KSAs) are required, assessment designers then examine the assessment tasks to determine whether other unwanted, non-target KSAs are required to complete the assessment. If unwanted KSAs are included in the assessment, the assessment will yield results about the target KSAs and non-target KSAs, such as language skills or math skills (Trumbull & Lash, 2013). Therefore, non-target KSAs should be eliminated.

For example, in a math assessment, students may be asked to answer a story problem. The target KSAs are the math skills to be assessed; however, reading is a non-target KSA that would be assessed by this story problem. Since the teacher is not trying to assess the student's reading ability in this context, students who struggle with reading or a language barrier should have an accommodation in the form of a reader or a translator.

In one of my own classes last week, students were working in small groups to build a testbed to discover how the inputs and outputs of our robotics kits work. The students enjoyed building the testbed but were getting frustrated at the subsequent testing steps during which they were required to read and follow four pages of written instructions broken into four parts. As students worked on this process over a few class periods, I realized they were being inadvertently assessed on their reading skills (a non-target skill). Between class periods I photographed the testbed at each of the four major steps they were to work toward, annotated the photos, and

shared them with students, eliminating the need to do the reading. While I recognize the importance of learning to read, I also recognized that reading skills were not what I was trying to assess in this activity. Students who had struggled with reading were then able to complete the rest of the assessment independently.

Evidence for complete understanding

Based on a review of which KSAs are necessary to demonstrate proficiency in a given criteria, the assessment includes minimal (0-1) non-target KSAs (such as reading). If non-target KSAs are included in the rubric, accommodations are made and accompany the assessment, such as additional illustrations, text translations (especially if done on a digital device), or read-alouds.

Evidence for partial understanding

Based on a review of which KSAs are necessary to demonstrate proficiency in a given criteria, the assessment includes 2-3 non-target KSAs (such as reading). If non-target KSAs are included in the rubric, accommodations are made and accompany the assessment, such as additional illustrations, text translations (especially if done on a digital device), or read-alouds.

Evidence for no understanding

Based on a review of which KSAs are necessary to demonstrate proficiency in a given criteria, the assessment includes non-target KSAs without accommodations.

7: Assessment requires transfer of knowledge to demonstrate understanding

According to Bloom (as cited in Wiggins & McTighe, 2005), "To understand is to be able to wisely and effectively use—transfer— what we know, in context; to apply knowledge and skill effectively, in realistic tasks and settings" (p. 7), "to take what we know and use it creatively, flexibly, fluently, in different settings or problems, on our own" (p. 39). The ability to transfer knowledge means that students can take the relatively small number of facts, skills, and examples and apply them to other issues, problems, and settings. Six facets of transfer ability as identified and defined by Wiggins and McTighe (2005) are: can explain, can interpret, can apply, have perspective, can empathize, have self-knowledge (p. 84). A well-crafted assessment that assesses students' ability to transfer what they know should include an authentic performance task "involving one or more of the six facets of understanding" (Wiggins & McTighe, 2005, p. 126).

The assessment tool should clearly describe criteria for degrees of understanding. Understanding should be assessed separately from other traits, like mechanics, organization, and craftsmanship. According to Wiggins and McTighe (2005), those other traits should be assessed in a separate rubric, or all of the traits should be assessed in a grid-style rubric.

As an elementary arts educator, I almost never assessed students using any kind of paper-and-pencil test. Regardless of what artist, technique, or style we were studying together, an art project was the authentic assessment my students completed. While some students might have had a difficult time stating the definition of a horizon line, they were able to create

artworks with horizon lines in them. This authentic demonstration was more meaningful than being able to choose from multiple choice options on a written test.

Evidence for complete understanding

The assessment requires students to demonstrate their understanding using an authentic performance task that includes one or more of the six facets of understanding: can explain, can interpret, can apply, have perspective, can empathize, have self-knowledge.

Evidence for partial understanding

The assessment requires students to demonstrate their understanding, not through an authentic performance task, but by answering questions on a paper-and-pencil assessment.

Evidence for no understanding

The assessment does not require students to demonstrate their understanding through an authentic performance task or in a written assessment.

*8: Assessment includes a social component

In today's knowledge society, students need lifelong learning skills, not just the ability to receive knowledge that is transmitted from a teacher. These skills may be gained through active learning (van den Berghe, Ros, & Beijaard, 2013). Active learning may take different forms, but typically includes students working in small groups to complete self-directed tasks or to complete teacher-directed activities that are under students' control (van den Berghe, Ros, & Beijaard, 2013).

During active learning, teachers place an emphasis on students developing certain skills more than on transmission of information. Among those skills is the ability to work collaboratively in groups, via a social component (van den Berghe, Ros, & Beijaard, 2013). Within a social context, learners construct their own knowledge (Trumbull, 2013). And social processes help students develop their cognitive skills, as we now know that intelligence is not a predetermined quantity (Shepard, 2000).

In my experience, when students are working in small groups, with few exceptions, they are motivated and engaged. This is not always the case when I am leading whole-group instruction. For example, in my current fifth grade class, we are working to program robots to move autonomously (with minimal human intervention). During one recent class in which I attempted to give whole-group instruction, students took turns disrupting class and causing distractions. The next day, I had small groups work independently on their robots while I moved from group to group. Almost all students were on task and productive the entire class period.

Evidence for complete understanding

The assessment includes a small group component where students have the opportunity to solve an open-ended problem using collaboration skills. Students will be expected to

navigate social situations, such as determining a course of action as a team and assisting a group member. The members of the group will assign group roles, if necessary.

Evidence for partial understanding

The assessment includes a small group component where students have the opportunity to solve a problem with a single solution. Group roles are assigned by the teacher, if necessary.

Evidence for no understanding

The assessment does not include a small group component. All work is done independently.

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