

Assessment that supports classroom creativity



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Introduction

When we think about classroom assessment, we often think about how best to determine whether students have met criteria in expected ways. Assessing classroom creativity is different, because we want to determine whether students can meet expected criteria in *unexpected* ways. Doing so does not require a radical transformation in approach; typical assessments can be modified in minor (or major) ways to make space for creative expression. Assessments that are not just *of* creativity, but for creativity not only *evaluate* creativity but also help *cultivate* it.

Why we need to assess creativity differently in the classroom

Classroom assessment is typically used by teachers to document whether and how students have attained academic learning goals, by assessing students' performance on learning activities that have clearly defined success criteria. More specifically, *what* students are expected to do and *how* they are expected to demonstrate their learning are known in advance by teachers and students. Asking students to solve 10 algebraic problems using a previously taught method (e.g. elimination) is an example. Teachers would simply assess whether students can arrive at the expected answers using the expected approach (i.e. 'showing their work').

Even in subject areas with multiple ways of approaching a task (e.g. writing fiction, historical analysis), teachers develop and use scoring rubrics and checklists that specify, in advance, what it is they are expecting to see demonstrated in students' work. Success is thus determined by whether

students can match their performance to *what is expected* and *how it is expected*.

Assessing creativity is different. Academic learning outcomes are often known in advance, while creative learning outcomes are emergent. This is because creativity always involves some level of uncertainty and therefore some element of surprise (Simonton, 2017). This is not to say that creativity is completely unconstrained. Indeed, *classroom creativity* has been defined as a blend between originality and meaningfully meeting task criteria (Beghetto, 2019; Runco & Jaeger, 2012). Thus creative learning

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outcomes can still have some predetermined criteria that need to be met, but how students meet them is to be determined (abbreviated as TBD). Put simply, creativity can be thought of as using unusual or different ways to meet curricular goals.

There are numerous creative paths students (and teachers) can take to meeting pre-established criteria (see Figure 1). These paths can even start on a previously taught or expected path and then diverge, thereby meeting the criteria creatively. Conversely, a path that diverges from what is expected, but does not meet the criteria, is simply different or original

and not creative. Creativity represents a 'both/and' combination of meeting the criteria, but in new, different and often unexpected ways (Beghetto, 2019a).

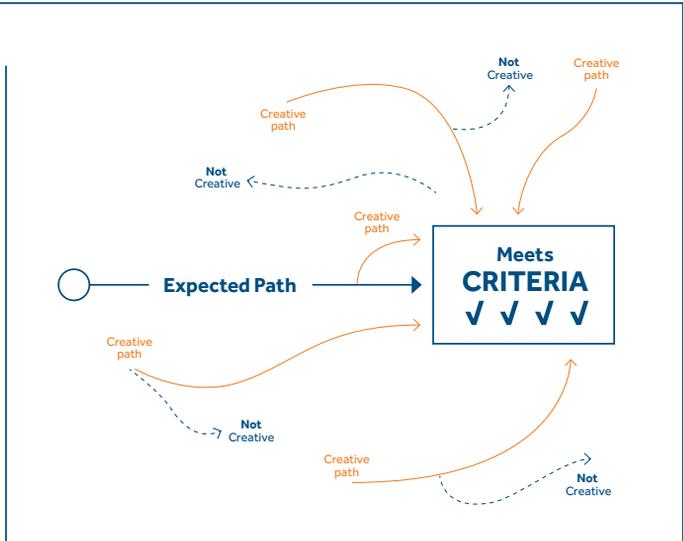
When students are invited to meet criteria in new and different ways, they are provided with an opportunity to demonstrate and develop their creativity. Opening up the possibilities for how students meet criteria requires transforming the typically predetermined pathways into TBD pathways, thus introducing uncertainty. This uncertainty is both necessary for and supportive of creative expression. In other words, if students and teachers already know how to get from A to Z, the pathway would not be creative.

Students are not simply set adrift in chaotic uncertainty: they are supported in producing new and different ways of meeting learning goals and

criteria. A math teacher, for example, could introduce a particular type of problem (a predetermined *what*) and then demonstrate a common method for solving it (predetermined *how*). They could then invite students to accurately solve similar problems (predetermined *what*) in as many different ways as they can (TBD *how*), or to create their own problems to solve (TBD *what*) using both the taught method (predetermined *how*) and their own methods (TBD *how*).

When teachers transform predetermined aspects of the curriculum into elements that are to be determined by students, they are providing structured opportunities for students to resolve uncertainty creatively (Beghetto, 2018). This opens up the curriculum for students to demonstrate their understanding in new and different ways. How might teachers assess this form of creative learning in classrooms?

Figure 1. Classroom creativity





How to assess classroom creativity

There are two key questions to consider when attempting to assess classroom creativity:

1. Did the student demonstrate novel, different or unique thoughts and actions when engaging with the assessed task?
2. Did the student demonstrate successful attainment of the learning goal or criteria?

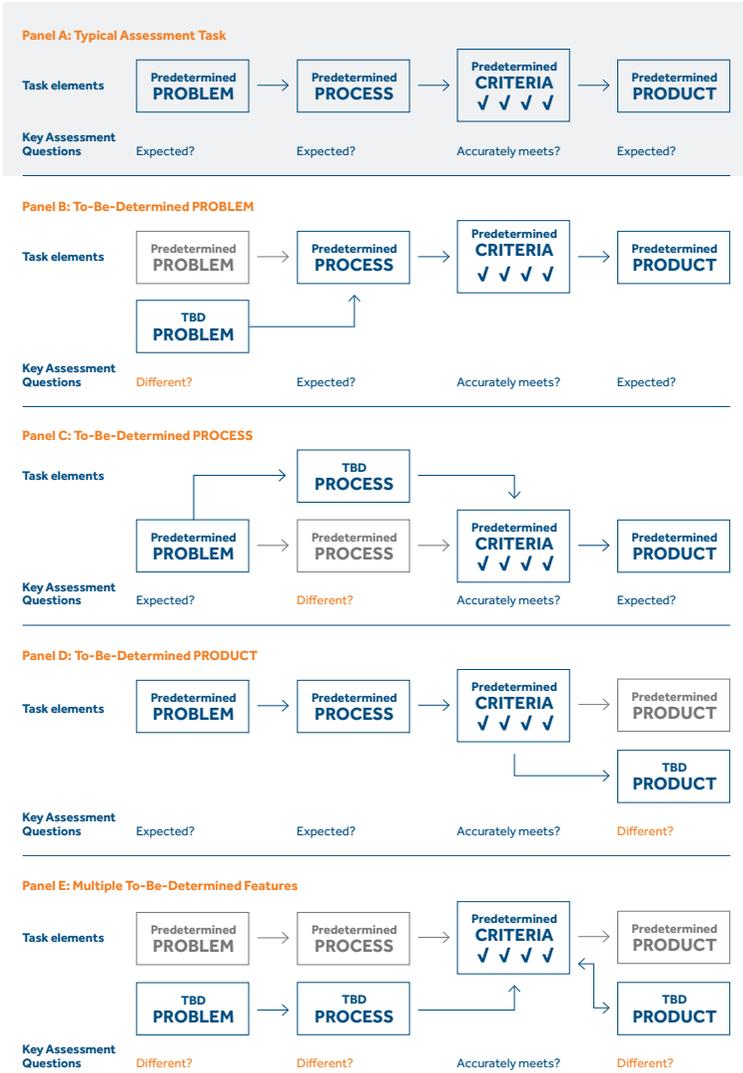
Educators may also find it helpful to clarify the different components of the task they will be assessing. Learning tasks have four interrelated components (Beghetto, 2018, pp. 7–8):

- **Problem:** the question, issue or task students are asked to address, i.e. 'what' students are asked to do
- **Process:** the approach, method or procedure students will use to solve the problem or complete the task, i.e. 'how' students address the problem
- **Product:** the solution, outcome or demonstration of solving the problem, i.e. 'how' students demonstrate they have met the criteria
- **Criteria:** the guidelines, rules and standards for evaluating success, i.e. non-negotiable benchmarks that are known in advance by teachers and students.

In the typical approach to assessment, teachers design and use learning tasks wherein all the above elements are already defined, and assess whether students' work has met the known criteria by addressing the presented problem, using the expected process. There are numerous ways in which teachers can modify or design learning tasks to provide opportunities for creative expression, by replacing one or more predetermined elements with a TBD element, for example where students produce their own problems, processes and products (see Figure 2).

A language arts teacher, for instance, might assess whether students are able to meet *predetermined* criteria by engaging in an *expected* task (e.g. demonstrate understanding of two literary devices),

Figure 2. Transforming existing assessment tasks into creative learning tasks



➤ TBD = To Be Determined by the student (Figure adapted from Beghetto, 2019b)



but do so in a *different* way (e.g. visual images rather than verbal or narrative) and in a *different* genre (e.g. film, illustration, live action) than what was previously taught (i.e. short stories). Once the type of assessment task and the key elements to assess have been decided, points or a grade can be assigned based on whether students have met the criteria. A simple assessment checklist can be used to score the assignment (see Table 1).

Checklists can help teachers monitor performance, and communicate to students what elements have been successfully completed and how they earned credit for each element. They also provide opportunities for teachers to give element-by-element feedback and encouragement to students.

Teachers can, of course, use this type of checklist as an ungraded form of feedback by removing all references to points, or use it to communicate a more detailed trajectory of student performance by using gradations

of points or levels of performance (e.g. 0 = no attempt, 1 = partial attempt; 2 = satisfies criteria; 3 = exceeds expectations, etc.). Students can themselves use a checklist to self-assess work in progress and finished products, including using it to communicate their questions and comments to teachers (e.g. 'I really tried to do something different here, but I'm not sure if it meets the criteria.'). Assessment checklists can be modified to suit age or developmental-stage groups (e.g. using emoticons instead of points for younger students, giving detailed feedback for older students), or to suit the needs of individuals (e.g. reminding students who tend to focus on originality to be sure to connect their work to the established criteria).

Additional considerations

When teachers assess *for* creativity, there are some additional considerations that can help ensure their assessment practices support, rather than inadvertently suppress, students' creative learning and development.

Required elements	Completed	Points earned	Additional notes & Comments
Use of at least two literary devices (2pts)			
Unique use of techniques (1pt)			
Genre or medium other than short story (1pt)			
Presented to peers in no more than five minutes			
(Additional criteria)			
TOTAL POINTS EARNED			

Table 1. Literary device grading checklist

Assessment for creativity versus assessment of creativity

How we assess creativity matters. If students feel that their performance is constantly monitored and compared, they may be less likely to demonstrate creative responses (Hennessey, 2016), and consequently be less willing to take the risks necessary for creative expression. Conversely, if students understand that the assessment information provided is meant to help them *develop* their creative competence and attain their learning goals, assessment can support creative learning.

It is therefore important that we assess for creativity by providing improvement-oriented information to students (e.g. 'Here's what you did well, and here are a few areas you can continue to improve.'). and not rely exclusively on comparative assessments of creativity (e.g. 'You are more/less creative than other students in this class.'). (See [Barbot & Lubart](#), this collection). Although researchers may use assessment of creativity to identify factors that help explain different levels of creative performance, educators, whose goal is to help individual students build on their current creative strengths and address weaknesses, will likely find assessments for creativity more useful (this collection; [Beghetto](#), 2019a; Lipnevich & Smith, 2018).

Student-involved, on-the-fly assessment

Given that creative learning outcomes are emergent and tend to involve some element of surprise, it is important that students are also involved in documenting examples of their own creative expression as it happens (see also [Rinaldi](#), this collection). Teachers can support this by encouraging students to gather digital and physical examples of their in-progress work, which they and their teachers can later review, curate and exhibit. This helps to share the assessment load and ensure that everyone is involved in documenting novel and meaningful examples, insights and ideas that might otherwise be lost (Beghetto, 2019). This can also help to understand how students' unique perspectives and understandings emerge during everyday learning activities, as well as identify areas in need of further clarification and more direct instructional attention.

It is also important to involve students in monitoring and reflecting on their self-beliefs, which play a

central role in creative performance and creative identity development (Beghetto & Karwowski, 2017; Karwowski & Kaufman, 2017). Although researchers have developed a variety of ways to assess creative self-beliefs, teachers can simply invite students to monitor and reflect on their confidence before engaging with creative learning tasks (e.g. 'Before starting this assignment, take a moment to [describe, discuss or rate on a scale of 0–100] how confident you are that you can come up with two different examples.'). and again following completion of the tasks (e.g. 'Take a moment to review the level of confidence you [described, discussed, rated] prior to the task. Were you accurate? Explain. What, if anything, surprised you about this assignment? How confident would you be if you had to complete a similar task?'). This can help students better calibrate their beliefs in the light of actual performance (e.g. recognizing that they often lack confidence when approaching certain tasks, or sometimes overestimate their ability to perform creatively on particularly challenging tasks). They may as a result of this self-reflection be more willing to take creative risks and seek assistance when needed (Kaufman & Beghetto, 2013).

When students are engaged in the assessment process, including self-monitoring their creative confidence, they are more likely to see how assessment information can support their learning (i.e. assessment *for* creativity), rather than viewing assessment information as something that teachers only use to make comparisons and calculate grades (i.e. assessment *of* creativity).

Concluding thoughts

Not only is it possible for teachers to assess creativity in the classroom, it is possible for them to do so in ways that support the development of creativity itself. When assessment approaches provide opportunities for students to meet curricular goals using unexpected approaches, and when they involve students themselves in the assessment process, they can help ensure that their assessment practices are supportive, rather than suppressive, of creative expression.

References

Beghetto, R. A. (2018). *What If?: Building students' problem-solving skills through complex challenges*. Alexandria, VA: ASCD.

Beghetto, R. A. (2019). *Beautiful Risks: Having the courage to teach and learn creatively*. Lanham, Maryland: Rowman & Littlefield.

Beghetto, R. A. (2019). Large-scale assessments, personalized learning, and creativity: Paradoxes and possibilities. *ECNU Review of Education*, 2(3), pp. 311–327. <https://doi.org/10.1177/2096531119878963>

Beghetto, R. A. & Karwowski, M. (2017). Toward untangling creative self-beliefs. In M. Karwowski & J. C. Kaufman (eds), *The creative self: Effect of beliefs, self-efficacy, mindset, and identity* (pp. 3–22). Cambridge, MA: Elsevier Academic Press.

Hennessey, B. A. (2016). Intrinsic motivation and creativity in the classroom. In R. A. Beghetto & J. C. Kaufman (eds), *Nurturing creativity in the classroom*. New York: Cambridge University Press.

Karwowski, M. & Kaufman, J. C. (2017). *The creative self: Effect of beliefs, self-efficacy, mindset, and identity*. Cambridge, MA: Academic Press.

Kaufman, J. C. & Beghetto, R. A. (2013). In praise of Clark Kent: Creative metacognition and the importance of teaching kids when (not) to be creative. *Roeper Review*, 35(3), pp. 155–165.

Lipnevich, A. A. & Smith, J. K. (2018). *The Cambridge Handbook of Instructional Feedback*. New York: Cambridge University Press.

Runco, M. A. & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal*, 24(1), pp. 92–96.

Simonton, D. K. (2017). Big-C versus little-c creativity: Definitions, implications, and inherent educational contradictions. In R. A. Beghetto & B. Sriraman (eds), *Creative contradictions in education* (pp. 3–19). Cham, Switzerland: Springer.

Wiliam, D. (2011). *Embedded formative assessment*. Bloomington, IN: Solution Tree Press.

