Chapter 2
Structured Uncertainty: How Creativity Thrives Under Constraints and Uncertainty

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Abstract Creativity is often associated with slogans like “think outside the box,” which imply that creativity dwells outside of constraints. Given that schools and classrooms are filled with constraints, including increased pressures from accountability mandates, it makes sense that people may come to believe that creativity is under duress, in a state of crisis, or that “schools kill creativity.” In this chapter, I offer an alternative perspective. More specifically, I discuss how creativity always operates in constraints and that creative expression emerges from structured experiences with uncertainty. Rather than viewing constraints as stifling creativity, I argue that they actually serve as a supportive structure for creative thought and action in educational settings.

2.1 Introduction

Is creativity in a state of crisis in K-12 schools and classrooms? Do schools kill creativity? Do curricular and assessment mandates put too much pressure on teachers and students, making it impossible for them to engage in creative thought and action? The simple answer is no. The more nuanced answer is it depends.

The purpose of this chapter is to demonstrate how creativity can and does thrive under pressure, constraints, and other forms of uncertainty. More specifically, I open by outlining some operating assumptions about creativity, and then introduce the concept of “structured uncertainty,” illustrating how uncertainties and constraints serve as a basis or catalyst for creativity. I close with a brief discussion of how educators can use this concept to design curricular experiences and activities to support both creative thought and action in and outside of the classroom.

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2.2 Operating Assumptions

In order to understand how creative thought and action can and does thrive in educational contexts, it may be helpful to first outline a few working assumptions about how educators and researchers might think about creativity. In what follows, I highlight my operating assumptions about creativity in educational settings.

2.2.1 Creativity as a Distinction

The first step in understanding the role that creativity plays in educational contexts is to recognize that creativity is a way of describing phenomena and not an entity itself. This is an often overlooked, but important assumption. When people (including creativity researchers) talk about creativity, it is often unclear whether they view creativity as an entity or an attribute.

An entity view portrays creativity as a thing that has its own distinct existence. Such a view serves as the basis for descriptions of creativity as something that particular individuals possess and something that can be given or taken away. Claims such as “schools kill creativity” or “she is a creative teacher and he is not” have a basis in this conceptualization of creativity. When this logic is followed to its conclusion, creativity devolves into a parasitic homunculus that dwells within people and reproduces itself through creative experiences, thoughts, actions and artifacts (Beghetto, in press).

The assumption that serves as the basis of this chapter is that creativity is not a thing, but a distinction we bestow on particular experiences, ideas, actions, and artifacts. Given this assumption, the important question becomes, on what basis do we make this distinction?

2.2.2 Criteria for Making Creative Distinctions

Although creativity researchers vary in how they specifically define creativity (see Corazza, 2016; Simonton, 2017; Smith & Smith, 2017) most tend to agree that creativity involves contextually defined originality and meeting task constraints (Amabile, 1996; Glăveanu, 2013; Plucker, Beghetto, & Dow, 2004; Runco & Jaeger, 2012; Stein, 1953; Stokes, 2006). Creativity, therefore, involves balancing originality and task constraints for a given classroom situation or learning assignment.

This definition underscores the idea that both originality and meeting task constraints are necessary for something to be described as creative. If a student shares a unique example during a discussion about the rise and fall of civilizations, but it is not relevant to the discussion then it is only original, not creative. Similarly, a student who uses taught procedure for solving a puzzle, would be meeting the task
constraints, but following a known procedure is not creative. Rather, students need to find a way to balance their own unique ideas with expectations and guidelines of the learning task.

This definition of creativity should not imply that determinations of what is and is not creative require equal proportions of originality and meeting task constraints. Rather, depending on the situation (e.g., an elementary classroom), even a small amount of originality might still be considered creative (e.g., a first grade student comes up with a novel way to resolve a disagreement between peers).

Recognizing that creativity represents some combination of originality and meeting task constraints can be quite helpful in understanding how creativity can be infused in even the most rigid of guidelines and learning criteria. This recognition is particularly helpful in schools and classrooms, because the task constraints are often predetermined. In such cases, students and teachers typically only need to find ways to add a bit of originality in meeting the task constraints in order for something to be considered creative.

### 2.2.3 Levels of Creative Magnitude

Equipped with an understanding that creativity is a distinction that is made based on the dual criteria of original expression within contextually defined task constraints, it is then helpful to recognize that determinations of creative expression can be made at various levels of creative magnitude. Importantly, the criteria for making these judgments remain the same, but the context and magnitude of creative expression change.

The Four-C model of creativity (Kaufman & Beghetto, 2009) provides a framework for understanding how creativity can manifest and develop across different levels of creative magnitude. Figure 2.1 provides a visual overview of the model, illustrating the development from creative inspiration to creative impact (adapted from Beghetto & Kaufman, 2014).

In what follows, I briefly highlight these four levels of creative magnitude, including their distinguishing features and transition points. I provide a bit more discussion of the transition from mini-c to little-c as this is often the most relevant for schools and classrooms.

#### 2.2.3.1 Mini-c Creativity

As illustrated in Fig. 2.1, the smallest level of creative magnitude is mini-c creativity. Mini-c creativity refers to an internal judgment of new and meaningful (i.e., creative) insight, idea, or interpretation of experiences. It is a subjective judgment of the person and need not be recognized as creative by others (Runco, 1996; Stein, 1953). Any time a student learns something new and meaningful or a teacher has a novel...
and relevant idea for how to teach a lesson, it can be said that they are having a mini-c experience.

In this way, mini-c creativity can be a self-contained experience that has the potential to rise to a higher level of creative contribution. Indeed, a key assertion of the Four C model is that all later forms of creativity start out as mini-c insights (Kaufman & Beghetto, 2009). In this way, creative expression that is recognized by the self and others has its basis in an intra-personal insight, experience, or interpretation.

2.2.3.2 Little-c Creativity

Once people share their mini-c insights with others, mini-c creativity has the opportunity to be recognized as little-c (Beghetto, 2007). Judgments of little-c creativity occur in the context of everyday settings (e.g., the classroom, the home, amongst a group of friends, and so forth). In this way, a sixth grade student’s unique way of interpreting an historical event can be considered novel and meaningful (i.e., creative) in that particular classroom, even if it would not be recognized as creative within the context of a high school or college classroom.

As I have discussed elsewhere (Beghetto, 2016), when students share their mini-c perspectives, it is possible that their teachers and peers will recognize these as novel and meaningful (i.e., creative at the little-c level). It is also possible that teachers and peers may view the ideas as novel, but not recognize the relevance. In such cases, teachers (and peers) will need to work with the idea (e.g., “We are not seeing how this interpretation fits with the historical event we are discussing, can you help us make sense of it?”). In some cases, this may lead to a recognition of the novelty and meaningfulness of the idea. In other cases, the student may realize that his or her unique perspective really doesn’t fit.
It is also possible that a student may have a mini-c idea, but fearing ridicule decide to share a conventional idea instead. Given this possibility, teachers interested in supporting creative expression will likely need to encourage students to share their own unique mini-c perspectives (e.g., “Can you come up with your own idea for how to solve this problem?”). In both cases, feedback (giving and receiving) typically serves as a key transition point from mini-c to little-c creativity (Beghetto, 2007; Beghetto & Kaufman, 2007). Indeed, feedback is critical not only for creativity but also learning (Black & Wiliam, 1998).

Even with supportive feedback, it is important to recognize that attempting to move from mini-c to larger-c levels of creative expression always requires some risk. Although the benefits may outweigh the costs (e.g., making a contribution to the learning of others, being recognized as sharing a new way of thinking about something, helping to solve a problem), the costs are still present (e.g., being dismissed, laughed at, ostracized, and feeling embarrassment).

In some cases, the negative costs can have lasting consequences. For example, the student may give up on creative aspiration or endeavor (see Beghetto & Dilley, 2016). In this way, creative potential remains latent or hidden. Mullen (in press) describes this unfulfilled state as hidden-c. Teachers can play a key role in helping to uncover hidden-c’s latent potential in their students (and themselves) by providing opportunities for students to express their own unique ideas and perspectives (Mullen, in press).

Of course, some mini-c insights and ideas never rise to the level of externally recognized creative expression. Indeed, in the daily occurrences of life, there is often not a need to share out every unique and personally meaningful insight. In the classroom, however, teachers have a professional responsibility to support academic learning. Consequently, teaching for creativity often has the dual aim of helping students develop their creative and academic competence. An example would be inviting students to apply their understanding of a scientific concept in a creative way (e.g., coming up with novel examples, designing their own experiment, and so on).

### 2.2.3.3 Pro-c Creativity

Pro-c creativity refers to the professional levels of creative accomplishment that are recognized by relevant members of a professional community of practice (Kaufman & Beghetto, 2009). Publishing a paper in a peer-reviewed journal is an example of a Pro-c level contribution. A teacher who develops a smartphone app that educators download and use because it offers a new, timesaving approach for evaluating student work is another example.

Although it is possible for novices to make Pro-c contributions, consistent professional level creative contributions require deep domain expertise and relevant access to the domain to make such contributions (Beghetto & Kaufman, 2014). This key requirement in the transition from little-c to Pro-c is denoted in Fig. 2.1 as disciplined preparation. This signals that Pro-c creators have invested a great deal of time, sustained effort, and deliberate practice developing the expertise necessary to
make contributions recognized by other professional creators. In this way, Pro-c creativity not only requires expertise but access to professional audiences and venues for creative endeavors to be shared and acknowledged by relevant professionals in a discipline, domain, or practice. Indeed, a breakthrough idea requires an audience to acknowledge how that idea has made a creative impact (Glăveanu, 2013).

In classrooms, Pro-c creativity can serve as an inspiration for young people and illustrate how professionals make creative contributions in and across various domains and practices. It can also help students start to realize how much time and effort goes into becoming a professional creator. In this way, inviting professionals into the classroom can be a powerful way to inspire students to make a connection between their own learning and interests and possible future trajectories they might pursue.

2.2.3.4 Big-C Creativity

Big-C creativity represents legendary accomplishments that stand the test of time and have transformed the way people think or act in particular domains and, in some cases, across cultures (Kaufman & Beghetto, 2009). Big-C distinctions typically are made by historians, critics, and connoisseurs. In this way, Big-C creativity is out of the hands of creators and represents the most dramatic example of a retrospective judgment that continues across socio-cultural and historical contexts.

Much like Pro-c, Big-C examples can be aspirational to young people. When teachers include the historical narratives of Big-C accomplishments in and across subject areas, students will be exposed to the heights of human creativity and the who, what, when, where, and why of such accomplishments (Root-Bernstein & Root-Bernstein, 2017). This includes the role that others have played in such accomplishments and how people have worked through setbacks and struggles, risks taken, and opportunities recognized. It also helps students recognize that creativity follows a trajectory and how mini-c inspirations (much like they are experiencing in their own learning and lives) can lead to larger-c contributions.

Taken together, the Four-C model can serve as an important framework for understanding how creativity can manifest at different levels of magnitude. This ranges from personal experiences and subjective interpretations (mini-c) to externally recognized contributions at the everyday (little-c), professional (Pro-c), and historical (Big-C) level.

2.2.4 Uncertainty as a Catalyst

Given that creativity is a distinction bestowed on phenomena and encompasses subjective (mini-c) insights to more profound (larger-c) contributions, a key question that remains is: Under what conditions might we expect creative thought and action to manifest? Creative expression is not needed at all times and in all places (Kaufman
& Beghetto, 2013). During a fire drill we do not want every student coming up with their own unique path out of the building. There are, of course, exceptions. If, during an actual emergency, the planned path is obstructed, then it would be critical for students and teachers to have the confidence and courage to find a new way out.

Along these lines, creative thought and action can be thought of as a way to make sense of uncertainty. Making sense of uncertainty typically requires us to challenge our old assumptions and try new things. Uncertainty, therefore, serves as an opportunity for creative expression. Figure 2.2 provides an illustration of how uncertainty provides an opening for creative action.

As illustrated in Fig. 2.2, whenever we run into an impasse in our planned experience, we have an opportunity to generate new and potentially creative outcomes. A classroom example might help illustrate. Consider a teacher who plans a lesson to quickly review and check students’ understanding of a previously taught concept. The teacher has some predetermined expectations of how this lesson will unfold, including what is being expected.

No matter how well planned the lesson, unexpected moments often emerge (Aoki, 2004). During a routine check of sixth grade students’ understanding of a concept (e.g., “Prior to moving on to our next writing activity, let’s refresh our memory of what we discussed yesterday: Who can define foreshadowing for us?”), a student might share an unexpected idea or comment (e.g., “A main character hiding in the shadows”). In such situations, it is unclear whether the student is confused or whether the unexpected comment has potential relevance. When such unexpected ruptures occur, the teacher is confronted with at least two options on how to resolve this surprising response (Beghetto, 2016).

One option would be to simply move forward with the lesson by trying to redirect the class to what was planned (e.g., “That’s not what I’m looking for….can someone help explain what foreshadowing means?”). The other option would involve taking class-time to attempt to understand what the student means and thereby take the lesson in a to-be-determined direction (e.g., “Ok … that’s not what I was expected, but can you explain how this might be an example of foreshadowing …“)?

![Fig. 2.2 Uncertainty as a catalyst for new thought and action](image-url)
Both options have costs and benefits. The first option has the benefit of quickly resolving uncertainty by continuing with the planned direction of the lesson. Although this is an understandable response, it can come at the cost of silencing a potentially creative idea. This can short-circuit that student’s (and other students’) willingness to share his or her mini-c ideas.

The second option has the potential cost of wasting curricular time and confusing other students. Exploring a surprising mini-c perspective, however, has the potential benefit of uncovering insights that might contribute to the learning and understanding of peers and even the teacher. The student who shared the unexpected response when asked to define a foreshadowing may actually have a clear and compelling example: “I recently wrote a short story that opens with the main character hiding in the shadows, which is something that the main character will have to do throughout the entire story because he is constantly chased and harassed by bullies.”

Exploring unexpected ideas requires the teacher’s (and peers’) willingness to step into the surprising response and work with students in an effort to understand what the student is saying. Doing so can result in little-c contributions that go beyond what the teacher initially planned. Although such moments do, on occasion, emerge in the context of lessons and activities, they are not consistent or systematic.

Fortunately, there is a way for teachers to design learning activities that provide students with opportunities to engage with uncertainty. In what follows, I introduce the concept of structured uncertainty and describe how it can be used as a design principle for creative lessons.

### 2.3 Structured Uncertainty

Structured uncertainty refers to presenting students with opportunities to work through uncertainty in a well-planned learning environment. The concept of structured uncertainty builds on the commonly agreed upon criteria necessary for judging something as creative. It also illustrates how slogans like “think outside the box” and similar conceptions that portray creativity as a form of unstructured originality are problematic.

Supporting creative expression in classrooms is, therefore, not about trying to remove all constraints, which is not possible. Rather, it is about establishing openings for original expression, which also fulfill the necessary constraints of academic learning. Indeed, if we recognize that uncertainty can be used as a way to promote creative expression, then we can design learning experiences that provide opportunities to engage with uncertainty while still providing students with helpful guidelines and instructional support.

In what follows, I highlight three interrelated ways that teachers can apply the concept of structured uncertainty to work more creatively within the constraints of their existing curriculum and instructional responsibilities.
2.3.1 Working Differently Inside the Box

Using the concept of structured uncertainty, educators can more systematically design learning experiences that provide young people with opportunities for creative expression. The good news is teachers need not start from scratch, but rather can work with existing lessons and activities to establish openings. Typically, learning activities assigned to students represent a routine task (Pólya, 1966). This is to say, the problem, in addition to the process for solving the problem, the outcome, and the criteria for success are all defined in advance to assigning it to students (Beghetto, 2018).

As I have described elsewhere (Beghetto, 2018), most learning activities can be thought of as having four elements: problem, process, product, and criteria. The problem refers to the task students are asked to complete. Problems include math story problems, writing tasks, science experiments, historical inquiry, conversational simulations in a different language, literary analysis, and just about any learning activity that teachers have designed.

The process refers to a procedure or strategy that can be used to solve the assigned problem. Processes can include mathematical procedures, writing strategies, methodological approaches, principles of practice, or any series of thinking techniques and actions aimed at systematically solving assigned problems. Teachers often teach students how to employ at least one standard process when confronted with a particular type of problem or task.

The product is the outcome of employing a process to solve a problem. Typically, the product is already known in advance by the teacher and used as one indicator for judging whether students have completed the task or resolved the problem. The criteria are the specific guidelines used to guide efforts and determine whether students have successfully completed the activity. The criteria often include non-negotiable elements, such as amount of time allotted, expectations for how work will be completed, how help can be obtained when needed, academic standards and conventions, and other guidelines and indicators of success.

As discussed, the four elements (problem, process, product, and criteria) of the prototypical activities that students are asked to complete tend to be fully determined by the teacher in advance. Once teachers teach a new concept or strategy, they usually assign routine exercises for students to complete. The components of such exercises are fully predetermined and much, if not all, of the uncertainty has been removed by the teacher (Beghetto, 2018; Roberson, 2017).

Indeed, in the context of routine tasks where predetermined outcomes and procedures for obtaining those outcomes are expected, students who provide an unexpected response—even if those responses accurately solve the problems—likely will be marked wrong. They will have not provided what was expected and how it was expected. Again, this is not necessarily a problematic situation if the goal is to check students’ ability to reproduce a previously taught procedure in the context of a particular type of exercise (Cazden, 2001; Lee & Anderson, 2013).
Having students work through routine tasks makes sense pedagogically, as they provide opportunities to rehearse and reinforce understanding of concepts, procedures, and skills. Such tasks provide a basis for developing understanding (Beghetto, 2018).

Routine tasks become problematic if there are little to no opportunities for students to engage productively with uncertainty. Indeed, a teacher interested in helping students learn how to productively respond to uncertainty needs to find a way to provide systematic and structured opportunities so they can identify their own problems to solve, develop their unique way of solving those problems, and produce novel outcomes and products (Beghetto, 2018).

Indeed, supporting students’ creative expression requires challenging students to put their understanding to creative use. This still involves maintaining a solid ground level of academic support, but pushing out the boundaries of what teachers expect from their students and how students meet those expectations. One way of doing so is for teachers (and students) to engage in what is called lesson unplanning (Beghetto, 2018).

### 2.3.2 Lesson Unplanning

Lesson unplanning refers to the process of providing openings for uncertainty into what otherwise might be a closed and predetermined lesson (Beghetto, 2018). One way to think of lesson unplanning is that it is a design technique used to help students put their learning to creative use. Lesson unplanning introduces uncertainty into activities by removing one or more of the four components (i.e., problem, process, product, criteria) from a previously planned lesson or activity. The removal of a predetermined component becomes an aspect that students will determine.

A teacher asking students to come up as many ways as they can for solving a particular type of math story problem is a simple (and fairly common) example of lesson unplanning (see Niu & Zhou, 2017). This small pedagogical move can substantially expand the walls of possibility and thereby remove the ceiling on what students might generate. Consequently, students have an opportunity to generate possibilities that even their teachers may not be aware of in advance. This is a clear sign that genuine uncertainty has been introduced into the activity, making room not only for students’ own learning, but the possibility for making creative contributions to the learning of their peers and teacher (Beghetto, 2016).

There are at least two considerations to keep in mind when engaging in lesson unplanning. First, when it comes to using lesson unplanning in the context of academic assignments, students likely need ground-level knowledge or at least a working understanding of the concepts, skills, and procedures to be used. Returning to the math example, if students do not understand even one way of completing a math exercise, asking them to come up with multiple ways or showing them 14 different ways their peers have generated solutions to the problem may only further confuse or frustrate them (Lee & Anderson, 2013).
Consequently, teachers may have more success using lesson unplanning after they have taught students using a fully determined version of the activity (i.e., pre-determined product, process, product, criteria) and then follow up with some exercises and tasks that have been unplanned, such as having students identify the problem, procedure, and product.

Some students may be ready to move from a ground level activity to more complex challenges that have two or more elements removed. Others may need to step back and continue to practice on a few more fully planned exercises. Still others may be ready to engage in lesson unplanning themselves.

Second, teachers still have the primary responsibility for specifying the criteria for learning tasks. As will be discussed, while it can be helpful to invite students to assist with defining the criteria (e.g., when they are designing projects that have emergent outcomes), teachers ultimately have the professional responsibility to establish the criteria (i.e., amount of time to be allotted, academic concepts to be included, how students can obtain assistance when needed, and so on).

Without clearly defined criteria, students will not know what is expected of them. Consequently, students may quickly become confused and frustrated. Establishing clear criteria helps to establish an effective learning environment (Reeve, 2006). As has been discussed, creative expression in the classroom is not about unconstrained originality, but rather is more about resolving uncertainty in an otherwise structured and supportive learning environment.

Just like any learning activity, teachers will want to ensure that students understand what is expected of them prior to asking them to engage with creative learning tasks (Lee & Anderson, 2013). Establishing and clearly communicating the criteria at the outset of a creative learning activity can support students in taking the risks necessary for generating new and meaningful ways of thinking and acting.

In this way, lesson unplanning conforms to the definition of creativity. Specifically, the criteria that teachers define for creative learning activities represent the task constraints of the definition and students’ unique responses to uncertainty reflect the originality of the definition: Creative Learning Activity = Unique Student Responses x Meeting Teacher-Defined Criteria.

Finally, lesson unplanning can be thought of as ranging on a continuum (Beghetto, 2018) from slight curricular changes (e.g., having students write their own ending to a story) to beyond classroom endeavors (e.g., having students identify and attempt to solve a complex challenge facing their school or community). These more ambitious endeavors, called “legacy challenges” (Beghetto, 2018), involve students identifying problems in and beyond the walls of the classroom that matter to them. Importantly, these often are problems that adults may not recognize (e.g., finding a way to make sure that students, who are too embarrassed to eat their lunches in front of other students, can still get a chance to eat).

Legacy challenges are designed by students. Students, working under the guidance of the teacher and relevant external partners and experts, develop a project to address the problem they identified. As such, they endeavor to make a lasting contribution that extends beyond the life of the project (Beghetto, 2018). Even in cases
where such projects fail, if provided with an opportunity to document, reflect, and receive feedback on their efforts, students can still learn from their setbacks.

Providing students with a full range of structured experiences with uncertainty is one way to help them learn how and when to engage in creative thought and action. In some cases, teachers may already use some version of these experiences. In other cases, these can be easily incorporated into the existing curriculum by using assigned tasks differently (i.e., substituting a few unplanned lessons with preplanned ones). In still other cases, teachers may need to think about how to use their time differently to incorporate more ambitious efforts into the school day (e.g., using home-room time and electives differently) or by designing before and after school clubs.

2.4 Concluding Thoughts

Given the increasing pressures placed on teachers to meet externally mandated standards and assessments, it may seem justified to conclude that creative expression is under duress in classrooms. If teachers feel forced to focus too narrowly on meeting task constraints, they may over-plan students’ learning experiences and undermine opportunities for creative expression. As has been discussed, even in such situations, small openings do emerge on occasion. These openings offer opportunities for students and teachers to think and act in new and meaningful ways. Moreover, teachers can make slight adjustments to establish openings in their planned lessons, thereby more systematically supporting creative expression.

The central idea I have attempted to describe in this chapter is: The potential for creative expression is always and already present in schools and classrooms. Although this potential can never fully be eradicated, it can be suppressed. The key is deciding when and where opportunities for creative expression might be more systematically included in the curriculum. If teachers are interested in establishing such openings, they can use the concepts of structured uncertainty and lesson unplanning to guide them in finding ways to replace over-planned learning experiences with a range of opportunities to support creative expression in their students (and themselves).

Doing so requires a shift in how creativity and learning are sometimes conceptualized. Rather than viewing these goals as being in competition with each other, the ideas presented in this chapter have focused on how supporting creative expression and academic learning can be realized as compatible goals. Indeed, there is empirical evidence that supports the link between creative expression and academic learning.

A recent meta-analysis (Gadja, Karwowski, & Beghetto, 2016) has, for example, demonstrated a modest, yet robust positive link between indicators of creative potential and academic achievement. Follow-up work exploring the conditions of creative learning in classrooms (Gadja, Beghetto, & Karwowski, 2017) has indicated that classrooms with the strongest links between creative potential and academic achievement tend to have teachers who demonstrate a more supportive,
exploratory approach when working with students’ ideas. Moreover, findings from a recent set of studies (Karwowski & Beghetto, 2018) has indicated that the movement from creative potential to creative expression seems to be mediated by creative confidence beliefs and moderated by the valuing of creativity.

At this point, additional work is needed to examine whether and how specific pedagogical efforts aimed at blending opportunities to put learning to creative use (such as lesson unplanning) influence student learning, creative confidence, and ability to creatively solve complex challenges and ill-defined problems. This level of work will require researchers working in collaboration with teachers to carefully document examples of creative learning (see Mullen, 2017, for an extended international example).

In addition to more formal studies, teachers can run small scale pedagogical tests of these ideas in their own classroom. If the aim is to provide students with more opportunities to productively respond to uncertainty in the context of a structured and supportive learning environment, then teachers can start by making small adjustments to their existing activities and evaluate the results.

Documenting, curating, and exhibiting such efforts, including failed attempts and setbacks, can go a long way in clarifying how and under what conditions creative expression does (and does not) thrive. Doing so will also help us develop a more nuanced understanding of when, for whom, and in what contexts it might be justified to raise concerns about the potentially stifling influence of external mandates and curricular pressures on creative expression in classrooms. Engaging in this work likely will also provide more occasions to recognize and celebrate the everyday efforts and creative achievements of students and teachers.

References


