Education and Creativity

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Creativity occupies a somewhat paradoxical role within formal K12 and higher educational settings. Although educators have long viewed educational settings as a promising context for the development and expression of student and teacher creativity, schools and classrooms have also been characterized as sites of creative suppression. Moreover, empirical work has demonstrated that the relationship between creativity and academic learning tends to be highly variable across schools, classrooms within the same schools, and even at different points of lessons within the same classroom (Gajda et al., 2017).

One way to understand the variable and, at times, paradoxical role that creativity plays in educational environments is to recognize that schools and classrooms, like all contexts, place constraints on creativity. Consequently, the role creativity plays in any given educational environment will, in large part, be determined by how it is conceptualized in that particular setting.

The opportunities and support for creative expression will, for instance, be very different in a classroom where educators conceptualize creativity as complementing their academic goals versus a classroom in which creativity is viewed as competing with those aims. Recognizing how different conceptualizations of creativity can have different implications for whether creativity is supported or suppressed can go a long way in helping researchers and educators better understand the role creativity plays in educational contexts.

The purpose of this entry is to provide an overview of various ways creativity has been conceptualized in educational environments, discuss implications for creative expression, and briefly highlight directions for research and practice.

A Continuum of Conceptions

The role creativity plays in educational settings can be thought of as ranging on a continuum from contradictory and ancillary to complementary and primary (see Fig. 1).

One side of the continuum displayed in Fig. 1 portrays conceptualizations that tend to suppress creativity (i.e., viewing it as contradictory or ancillary to the goals of an educational setting) and the other portrays more creativity supportive conceptualizations (i.e., viewing it as complementary and primary to education). Prior to discussing each of the four conceptualizations on the continuum and the implications for creativity, it is important to highlight a few assumptions regarding the continuum.

As with any continuum, the areas of the continuum do not represent discreet categories, but rather blend into each other. Moreover, as mentioned there is variability in and across classrooms with respect to the role creativity plays in educations settings. As a result, although a given educational setting may tend to be represented by a more or less supportive conception of creativity, there likely will be some level of variability in the day-to-day and moment-to-moment support of creativity in any given environment. Recognizing that variability still remains within any given environment helps avoid characterizing educational environments in overly simplified ways, prevent missed opportunities to study and realize the creative potential in a particular learning environment, and acknowledge the dynamic and complex nature of educational settings.

Creativity as Contradictory

The first position on the continuum represents a contradictory conception of creativity. A contradictory conception refers to viewing creativity as being in direct competition with academic goals. This view places creativity and academics in a zero-sum relationship. Consequently, educators who hold this view may feel that using curricular time to provide opportunities for creative expression likely takes away from more pressing and basic academic goals.

An extreme example of the contradictory perspective is represented in the proclamations of the fictional educator, Thomas Gringrand, in Charles Dickens’ Hard Times:

Now, what I want is, Facts. Teach these boys and girls nothing but Facts. Facts alone are wanted in life. Plant nothing else, and root out everything else …

Dickens (2012, p.5)

Although Gringrand is a fictional character, the idea of focusing on basic academic facts is a view that occasionally surfaces in the “back to basics” discourse of educational policymakers and designers of school reform initiatives. In the context of this type of educational policy and discourse, aims such as nurturing student creativity are conceptualized as superfluous.

Research on practicing educator’s beliefs suggests that teachers tend not to espouse such an explicitly narrow view of the aims of education. There is, however, evidence that some educators hold a contradictory view, which may be a result of the perceptions they hold and contextual pressures they face. Specifically, prior research demonstrated that some teachers tend to favor conforming behaviors in students (Karwowski, 2017). Moreover, there is evidence that even prospective teachers tend to view creativity as being incompatible with academic learning. Prior research indicates that prospective teachers tend to view cultivating the creative imagination as
something that should eventually be replaced with a more serious focus on the memorization of academic subject-matter or something that should be deferred until some later point once students have established a firm academic foundation (Beghetto, 2013).

The contradictory perspective differs from how scholars tend to view the relationship among creativity, academic facts, meaningful memorization, and academic learning. Specifically, educational and creativity scholars have traditionally viewed creativity and learning as compatible and mutually reinforcing experiences. Consequently, scholars often raise concerns when an overly narrow focus is placed on rote learning, memorization, recall, and recognition as they tend to assert that it unnecessarily diminishes opportunities to simultaneously foster creative and academic potential. David Berliner (2011), for instance, asserted that such restrictive educational policies and externally mandated testing practices have dire consequences both for creativity and “what it means to be smart in school” (p. 79).

Implications for Creativity

Educational systems which operate under the assumption that creativity and academic learning represent contradictory aims, likely will suppress creative expression and the development of creative productivity. Indeed, if creativity is viewed as taking away from educator's primary responsibility, then it makes sense that, in practice, educators would disapprove of anything that contradicts their primary professional aim. One consequence of this is that even unexpected and potentially creative ideas shared during classroom discussions likely will be deflected (e.g., “We'll talk about this later”) to avoid the risk of being derailed from their previously planned academic lesson.

Creative experiences can still operate within the context of educational environments that conceptualize creativity as contradictory. Creativity researchers have long recognized that subjective forms of creativity occur anytime someone has a new and personally meaningful insights, interpretations, or experiences. The problem, of course, is that students need to have opportunities to receive feedback on their own unique conceptions. This is important both for learning and creativity.

With respect to learning, students need to be able to test-out their ideas and receive corrective feedback on any confused, muddled, or inaccurate academic conceptions. As for creativity, students also need opportunities and feedback to help them communicate unique and meaningful conceptions so that those ideas can make a contribution to the learning and perspectives of others. If creativity is conceptualized as a contradictory educational aim then it likely will curtail the encouragement and feedback necessary for creative expression and limit opportunities for students to develop their creative productivity.

Creativity as Ancillary

Moving along the continuum of conceptions, the next way that creativity can be conceptualized in educational settings is to view it as a potentially beneficial but ancillary goal. An ancillary conception therefore refers to viewing creativity as a valued, but minor aim of education. Much like conceptualizing creativity as a contradictory goal of education, viewing creativity as an ancillary, albeit valued aim of education likely will result in creativity being differed or dismissed. This is why an ancillary aim falls on the tending toward suppressing end of the continuum (Fig. 1).

Prior research suggests that an ancillary conception of creativity may be the most widely held view amongst educators. Consider, for instance, the results of a systematic review of 18 studies on teachers' perceptions of creativity published from 1999–2015 (Mullet et al., 2016). The authors of the review reported that teachers tend to value creativity but typically believe it is limited to the arts and feel unprepared to foster it in their classrooms. Such beliefs reveal an ancillary perspective. Specifically, when creativity is viewed as valued, but separate from what teachers have been prepared and are expected to teach, then it likely will receive little if any attention.

This ancillary view was also prevalent in the findings of another systematic review of 53 studies published from 2010 to 2015 on K12 teachers' beliefs about creativity (Bereczki and Kárpáti, 2018). The authors reported that teachers tend to hold a generally positive view about creativity (e.g., “generally value creativity”, “believe that it can be nurtured in every student”), but also tend to believe that they are not capable of fostering creativity due to various barriers that characterize their professional practice (e.g., “lack of time and training,” “overloaded curriculum”). The consequence, as the authors of the review explained is “even if teachers hold positive or adequate beliefs about creativity, these rarely translate into creativity-fostering practices” (Bereczki and Kárpáti, 2018, p. 50).
Implications for Creativity

When creativity is a valued yet an ancillary aim, teachers may feel as though it is not their direct or most pressing responsibility. Consequently, opportunities for creative expression tend to be suppressed because teachers feel the pressure (self-imposed or otherwise) to focus on more pressing academic aims.

As mentioned, one reason this can happen is because teachers feel overloaded by their primary academic curriculum. Indeed, teachers who would otherwise “like to help students develop creativity” tend to feel “overwhelmed with other more pressing responsibilities” (Aljughaiman and Mower-Reynolds, 2005, p. 30)

Another reason this can happen is if teachers do not feel they have adequate preparation or opportunities to support creative expression in the context of their academic subject matter teaching. Indeed, Chan and Yuen (2014) explained based on their study of teachers in gifted and general education that supporting creativity in the classroom may come down more to environmental supports, opportunities, and resources to implement creativity supportive practices rather than substantial differences in creative personality or valuing creativity.

Viewing creativity as an ancillary goal of education is not limited to practicing teachers. Prior research on prospective teachers also indicated that they generally value creativity, but tend to view it as being more aligned with the arts and have concerns that spending time exploring creative ideas during the teaching of academic subjects may take them “off track” from their primary curricular responsibilities (Beghetto, 2013). It therefore may be the case that future educators enter into the profession already holding ancillary conception of creativity, which carries over and continues into their professional practice.

Consequently, translating a value for creativity into opportunities to foster students' creative productivity in the curriculum, may come down to educators learning how creativity can complement their academic goals.

Creativity as Complementary

The next point on the continuum of conceptions is a complementary perspective. This perspective refers to viewing the development of creative productivity as being compatible with academic learning and academic learning as being compatible with fostering creative expression. A complementary perspective positions creativity and academic learning as having the potential to be mutually reinforcing. It is a both/and perspective, which recognizes that although there are differences between creativity and academic learning there is a positive relationship between the two.

Viewing creativity as compatible with academic learning is a view that has long been held in the creativity studies literature. J.P. Guilford (1950) explained that “a comprehensive learning theory must take into account creative activity” because “a creative act is as an instance of learning” (p. 446). Learning theorists, including Jean Piaget and Lev Vygotsky also recognized that the creative imagination plays a central role in the development of knowledge. Recent theoretical perspectives have also characterize creativity and learning as compatible (see Beghetto, 2016 for an overview).

One reason scholars conceptualize creativity as being complementary to educational goals is because it represents a blend between originality (i.e., uniqueness, novelty or effectiveness) and meaningfulness (i.e., usefulness, effectiveness or meeting task constraints). In the context of an educational setting, academic subject matter can serve as the task constraints and originality represents different ways for teachers and students to meet those constraints.

Creativity researchers have also examined the empirical link between creativity and academic achievement. A meta-analysis (Gajda et al., 2016) examined 120 studies and 782 effects from research conducted from 1962–2015 and found a positive, albeit modest association ($r = 0.22$) between measures of creativity and academic achievement. This somewhat modest, yet positive relationship is, in part, due to the variability in the types of measures used and variability of the relationships found in studies included in the metanalysis. Indeed, previous research found positive, negative, and null relationships between creativity and academic learning.

Although there seems to be a generally positive association between measures of creativity and academic learning, a key take-away from the complementary perspective would be although creativity can be compatible with academic learning, there likely is a great deal of variability in how this plays out in educational settings. A recent, mixed-methods study (Gajda et al., 2017), for example, examined the variability of creativity supportive behaviors in ten classrooms classified as having a positive (average $r = 0.52$), negative (average $r = −0.23$), and null (average $r = 0.02$) relationship between creativity and academic learning. The findings from this study suggest that classrooms classified as having a positive creativity-academic achievement relationship tended to be characterized as having teachers who demonstrated caring behaviors, emotional support, more extended opportunities to explore and develop student ideas creativity supportive behaviors. Importantly, however, student self-expression and ideation were found across all classroom types. Moreover, redirecting and dismissal of students' ideas also occurred in all classroom types and there was also evidence that creative teaching and learning behaviors may be difficult to sustain over the duration of the entire lesson.

Taken together these results indicate that creativity can be compatible with educational aims across various classroom types, but that there is variability in when, how, and why creativity plays a compatible role in particular classrooms at a particular point in time.

Implications for Creativity

A complementary perspective therefore recognizes that opportunities for encouraging and exploring creative ideation in the context of academic learning is possible, although not always feasible or necessary during every moment of academic learning. In this way, a complementary view of creativity acknowledges that there is a time and place for creative expression. It is not always beneficial
or necessary for students to come up with their own unique way of meeting academic expectations or meeting academic criteria. Indeed, learning pre-existing ways of thinking and acting can not only be beneficial for learning but also for creativity.

In this way, highly planned learning environments, which require students to fulfill predetermined expectations or criteria do not necessarily stifle creativity. In fact, as long as educators blend predetermined features with to-be-determined aspects, then they will actually be planning for creativity by including opportunities for students to meet pre-established educational goals and criteria in different ways.

A complementary perspective thereby recognizes that educators need not always try to teach creatively or require creative expression on the part of their students, but rather provide young people with frequent opportunities to develop, test-out, and contribute their unique insights and perspectives to what they and their peers are learning.

Creativity as Primary

The final conception on the continuum involves viewing creativity as a primary educational goal. Much like a contradictory conception, the creativity as primary perspective represents a somewhat extreme end of the conceptual continuum. In some cases, viewing creativity as a primary educational aim has historically had a basis in theological beliefs or viewing creativity as central to what it means to be human. Such views have most frequently been evident in the design of early childhood environments.

Fredrich Froebel (1782–1852), the German educator and progenitor of the concept of the kindergarten, represents one of the earliest examples of an educator conceptualizing creativity as a primary aim in the design of educational practices. Froebel's ideas, which had theological overtones, outlined a pedagogical approach aimed at fostering children's creative activity. Froebel based his educational views on his belief that children were inherently creative beings and thereby required an education that provided opportunities for students to engage in creative activity, effort, and development (Hill, 1988).

Other examples of educational environments that viewed creativity as playing a primary, albeit more integrated role include the American Pragmatist John Dewey's Laboratory School at the University of Chicago, which had an aim to “respond to the child's need of action, of expression, of desire to do something, to be constructive and creative, instead of simply passive and conforming” (Dewey, 1990, p. 80). The Reggio Emilia approach to education is another example. Developed after World War II by the educational psychologist, Loris Malaguzzi, in collaboration with educators, parents, and children from Reggio Emilia, Italy. This approach, much like other child-centered approaches (e.g., Montessori and Waldorf), views educational settings as places where “children and adults may realize their full potential as intelligent, creative, whole persons” (Edwards and Gandini, 2018, p. 368).

In addition to early childhood environments, arguments in favor of conceptualizing creativity as a primary educational aim tend to be offered as a corrective to what is perceived as educational settings placing too narrow of an emphasis on memorization and recall. Arguments in favor of viewing creativity as a primary educational goal sometimes position it as being the most important goal, which represents the most extreme version of this conception.

The American creativity researcher, Frank Barron, for instance, observed that during the late 20th century in the United States a “growing core” of educators and educational programs endeavored to place “creativity as the most important goal of education” (Barron, 1969, p. 7). Similar views have been asserted in other countries and occasionally resurface across the decades. The British philosopher, Mary Warnock, argued that educators have a duty “above all else” to develop the child's creative imagination (Warnock, 1978).

In other cases, arguments in favor of creativity as a primary goal describe it as a distinct but equally important aim as academic learning. The author and speaker Sir Ken Robinson, for example, asserted in his incredibly popular 2006 Ted Talk (Do schools kill creativity?), “creativity now is as important as literacy, and we should treat it with the same status.” Gifted education programs have also conceptualized creativity and academic learning as important but distinct curricular streams.

In still other cases, scholars and educators who view creativity as a primary aim also recognized that it overlaps with academic learning and thereby hold views that start to blend with a complementary conception. As mentioned, the Soviet educational psychologist, Lev Vygotsky viewed creativity and academic subject matter as complementary. Vygotsky, however, also asserted that if preparing young people for the future is the main educational goal, then fostering the creative imagination “should be one of the main forces enlisted for the attainment of this goal” (Vygotsky, 2004/1967, p. 88).

Implications for Creativity

Viewing creativity as the or one of the most important educational goals, can result in multiple opportunities for creative expression. Such educational environments however tend to be an alternative to the prototypical K12 or college educational environment (e.g., early childhood settings, creativity-focused gifted education programs, specialized schools, or after school programs). There are also emerging settings that offer a creative third space for students and educators.

A creative third space provides students with opportunities to engage in creative projects and endeavors in a space between their typical academic program and the surrounding community. IowaigBig is an example of a creative third space, which provides opportunities for students to take creative action on real-world problems. Iowa BIG is a public high school program, with no admissions requirements, which partners with school districts in Iowa and provides students and families with a “different learning experience” (Iowabig.org). Specifically, students attend Iowa Big for 50%–90% of their school day to design a creative, interdisciplinary project that requires students to work with outside partners to work on addressing problems and community needs generated by students and local businesses, non-profits, and government agencies (Iowabig.org). Conceptualizing creativity as a primary aim of education can result in experiences tending toward supporting creativity, but such a conception can, somewhat ironically, also result in the marginalization
of creativity (at least in prototypical K12 and college settings). Indeed, given that most K12 and higher education systems have already firmly established academics as a primary aim, attempting to replace or compete with academic learning for curricular space likely will result in creativity being displaced or outsourced. Consequently, much like a contradictory or ancillary perspective, educational programs that have a primary aim of encouraging creative expression and fostering creative productivity tend to relegate it to specialized and extracurricular educational programs.

Conclusion

The purpose of this entry was to highlight how different conceptions of creativity can have implications for whether it is supported or suppressed in educational environments. One key insight for both researchers and educators is to avoid the temptation of characterizing educational environments as monolithic. Educational environments do not necessarily suppress creativity. Creativity still occurs even in environments that view it as contradictory to the aims of education and creative expression is also sometimes suppressed in environments that value it and actively attempt to encourage it.

Creativity researchers interested in understanding creativity in educational environments therefore need to take the time to understand the unique features and aims of the settings they are studying. The use of blended methodologies that employ more dynamic and micro-longitudinal designs can help reveal the variability of creative expression both within and across educational contexts.

Moreover, researchers who take the time to work more closely with practicing educators likely will develop a better understanding of the unique constraints teachers face as well as what things teachers are doing to support student creativity. Teachers (both prospective and in-service) can also learn from researchers how creativity has been conceptualized in the field of creativity studies, how it might complement their academic aims and responsibilities, and how to strike a better balance of knowing when, how, and why to support creative expression in the context of their other academic aims.

Uncited References

Dickens, 2012, Vygotsky, 2004

References

Hill, P.S., 1908. The value and limitations of Froebel’s Gifts as educative materials parts I, II. Ele. Sch. Teach. 9, 129–137.

Further Reading

Relevant Website

Creativity in the Classroom, American Psychological Association, https://www.youtube.com/watch?v=oQqFFaJ8gc.