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An Exploration of the Existence, Value and Importance of Creativity Education

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Abstract:
This study employed purposive sampling across 20 SE Idaho schools to explore PK-3 educators' perceptions regarding the value and importance of creativity education in the early childhood education setting (PK-3). A survey instrument and semi-structured interview protocol were developed for use. Surveys were distributed by mail and through on-site meetings, Interviews were conducted in one-on-one settings. Seventy-three PK-3 educators were surveyed and eight took part in the interviews. The findings indicated that while PK-3 educators valued the concept of creativity, there was a discrepancy between teachers' claims of valuing creativity and the realities of their classrooms. Barriers to increasing creativity education were identified as a lack of educators' understanding of creativity, children's freedom of expression, curricular restrictions, and the high-stake testing environment. Needed supports included loosening regulations associated with standardized tests, more curricular flexibility and space for free-play activities, and a clearer, shared understanding of creativity.

Keywords: creativity, supports, barriers, early childhood teacher education, preservice education, standardized testing

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An Exploration of the Existence, Value and Importance of Creativity Education in the PK-3 Education Setting

Creativity, imagination, and the ability to engage as individuals acting as centers of choice and evaluation (Greene, 1995) are essential dispositional skills needed to prepare citizens to thrive in an increasingly complex 21st century (Beghetto, 2015; Eisner, 2002; Greene, 1995;

Wells & Claxton, 2002). Creativity and imagination help assure citizens are prepared for the unprecedented changes, global challenges and risks, and an uncertain future faced by our nation and the world (Eisner, 2002; Friedman, 2007; Friedman & Mandelbaum, 2011; Greene, 1995; World Economic Forum, 2006). According to Gardner (1993) children are born with creative potential, with 3 to 5 years of age being critical in terms of creativity development. Fostering creativity and imagination serve to nurture and support a lifelong love for learning, thereby potentially enabling children to lead more enriched and creative lives (Eason, Giannangelo, & Franceschini III, 2009). Epstein (2008) discussed how encouraging creativity supports children's academic performance, learning processes, and lifelong learning and stressed the growing importance of creativity, imagination, and divergent thinking in the classroom.

Despite evidence that creativity development, and what Greene (2017) described as social imagination—"…the capacity to invent visions of what should be and what might be…" are associated with enhanced learning potential and life enrichment (Eason et al., 2009; Epstein, 2008; Gardner, 1993) they are often conceptualized as independent and separate from academic curricular goals (Beghetto, 2015; Beghetto & Kaufman, 2009; Eisner, 2002). A 2010 *Newsweek* article by Bronson and Merryman noted that too often early childhood education curricula does not provide or foster an environment conducive to unlocking and supporting children's creativity development.

A longstanding and compelling body of literature supports concerns that creativity development in the K-12 education setting has been and is, not only threatened but deteriorating (Beghetto, 2010; Berliner, 2009; Bronson & Merryman, 2010; Eisner, 2002; Greene, 1995, 2007). Guilford (1950) gave a presidential address to the American Psychological Association (APA) during which the importance of developing the creative potential of school-age children, along with concerns about creative thinking being "seriously discouraged" in schools and classrooms, were raised (p. 448). Likewise, according to Torrance (1959) "we have seen many indications in our testing of first and second grade children that many…seem to have been subjected to concerted efforts to eliminate fantasy from their thinking…" (p. 313). More recently, Bronson and Merryman (2010) noted that existing school curricula typically do not provide or foster an environment conducive to unlocking and supporting children's creativity development. They further reported that creativity scores of U.S. children in kindergarten to sixth grade have inched downward since the 1990s.

Similarly, using the Torrance Test of Creative Thinking (TTCT) research conducted by Kim (2011) showed that creative thinking scores among children in kindergarten through third grade had decreased significantly when compared to scores from 1974 to 1990. The TTCT measures five elements of creative thinking: (a) fluency, (b) abstractness of titles, (c) originality, (d) elaboration, and (e) resistance to premature closure (Torrance, 1966). The steady and persistent decline in TTCT scores indicates that creative thinking has declined over time, especially among children in kindergarten through third grade.

Because of the role of creativity and imagination in a future characterized by uncertainty and change, and the critical age-range for creativity development noted by Gardner (1993), declines associated with developing children's creative competence must be addressed and reversed (Beghetto, 2015; Wells & Claxton, 2002). This study sought to better understand this issue by exploring PK-3 educators' perceptions of the value and importance of creativity education; and identifying educator perceptions of barriers and supports associated with creating and fostering education environments conducive to developing creativity. The latter, perceived barriers and supports, are the primary foci of this paper.

Barriers and Supports

High-stakes testing narrows the curriculum and detracts from nurturing creativity in the classroom (Berliner, 2009). According to Berliner, high stakes testing detracts from and limits liberal arts education because of the time that ends up being spent on test preparation and the focus on right-answer multiple-choice items often devoid of critical thinking, problem solving, debate, and project method approaches. This narrowing restricts teachers' opportunities to teach creatively and to support creative skills, restricting children's freedom to experiment and question, as well as hindering creativity and critical thinking engagement and development through play (Dacey, 1989; Eisner, 2002, Gardner, 1993; Ginsburg, 2007; Meador, 1992).

As noted, too often creativity and academic learning are conceptualized and compartmentalized as separate curricular goals (Beghetto, 2015; Beghetto & Kaufman, 2009; Eisner, 2002); and given the pressures associated with high stakes testing, educators may perceive and rely on gifted and talented and after school programs, or other extracurricular activities to suffice to teach, foster and nurture creativity development (Beghetto, 2010). Also, despite increasing interest in creativity in education, there seems to be a lack of a clear and consistent definition of creativity in education (Cropley, 2000; Feist & Runco, 1993). Furthermore, research by Skiba, Tan, Sternberg, and Grigorenko, (2010) indicates that there is a discrepancy between teachers' claims of valuing creativity and the realities of their classrooms. With the above in mind, the questions emerge as to what educational barriers and/or supports may be driving the apparent disconnect between the importance of creativity development and the reality of declining evidence of creativity among PK-3 students.

Methodology

Sampling and Respondent Demographics

This study employed purposive sampling. Participants were delimited to PK-3 teachers and school leaders employed across 20 schools located in southeastern Idaho during the 2012-2013 academic year. One hundred and sixty-four survey opportunities were provided to public, private and charter school educators. Of those, 73 surveys were completed and returned resulting in a response rate of 44.5%. Of the respondents, 92% were female, with an age distribution slightly skewed toward mid- to late-career teachers. Over two-thirds indicated they held a bachelor's degree (68.5%). Approximately one-third noted they had been teaching for between one and six years, with almost 40% indicating they had 15 years or more teaching experience. Five teachers and three administrators participated in a semi-structured interview conducted in follow-up to the surveys. Interviewees consisted of one male and seven females ranging in age from 26-30 to 51-55, with a range of teaching experience of four to 26 years.

Instrumentation and Procedures

The study employed a survey instrument developed to address the research questions, with item prompts informed by the literature. The instrument queried educator perceptions about the value, importance, barriers, and supports associated with creativity in the early childhood (PK-3) education setting. Once drafted it was subject to content verification by the researcher, followed by expert review by an early childhood educator in the College of Education at the researcher's institution. The instrument was then piloted with four early childhood educators in a neighboring school district. The instrument was modified to reflect both expert review and pilot test feedback. Two open-ended questions, one addressing barriers and one addressing supports, were also included.

In terms of value and importance, item prompts ranged from direct queries (e.g.., "I value creativity," "Creativity can be measured" and "I value creative behaviors") to perception queries

about educator and curricular agency in recognizing, nurturing and teaching creativity (e.g., "…Students' creativity can be developed in the regular classroom;" "Developing creativity should be one of the main goals of early childhood curriculum;" "Educators are very important in enhancing students' creativity;" and "The school where I teach/administrate places emphasis on fostering student creativity"). Literature by Beghetto (2010), Berliner (2009), Bronson and Merryman (2010), Eason, Giannangelo and Franceschini (2009), Feldhusen and Treffinger (1975), and Runco and Johnson (2002), provided the foundation for these item queries. Building upon this literature, barrier and support queries were designed to move from value-based perceptions to educator views about pedagogy, curriculum and the teaching and learning environment regarding what gets in the way (barriers) and what they need (supports) to enhance creativity education in PK-3 classrooms (Longo, 2010; Luftig, 2000; Miller & Almon, 2009; Robelen, 2012; Skiba et al., 2010). The link between survey items and the literature was further substantiated by the emergent themes evidenced in the interview data (see Tables 2, 4 and 6), further strengthening the researcher's confidence in the instrument use.

The semi-structured interview protocol consisted of sets of questions in categories aligned with those used in the survey instrument. The interview protocol was drafted after the surveys were returned and analyzed. A 30-minute interview was conducted and recorded in the interviewees' office, classroom or other location of their preference. Interviews were conducted in a quiet and comfortable place with a MP3 recorder placed between the participant and researcher. Recordings were transcribed by the researcher and transcripts analyzed using a general inductive approach to derive codes and themes (Thomas, 2006). These data served to explicate the quantitative survey data.

Analysis and Results

Educators' perceptions regarding the value and importance of creativity education provide a foundational context to the primary foci of this paper, the barriers and supports. The frequency response findings are displayed in Table 1 and reveal five themes: (a) educators' valued creativity; (b) educators' recognized the importance of creativity especially in early childhood education; (c) educators' recognized their role to nurture students' creativity; (d) educators' perceived creativity as helpful for academic learning; and (e) they perceived hardship in terms of measuring creativity.

Relative to recognizing value and importance almost 95% of respondents agreed or strongly agreed that they valued creativity, and a strong majority agreed or strongly agreed that it was important, especially in early childhood education (90.4%). Similarly, 80% believed there are key educational developmental periods in cultivating creativity, and 86.3% indicated that developing creativity should be one of the main goals of early childhood education curriculum.

Over 90% "agreed" and "strongly agreed" that educators' role was important to nurturing creativity (95.8%); and, that it was the teachers' responsibility to develop students' creativity in the regular classroom. These data indicated that: (a) students' creativity can be developed in the regular classroom (91.8%); and (b) regular classroom teachers are responsible to help students develop their creativity (90.4%). Relative to views regarding creativity education as essential for academic learning, 95.8% "agreed" or "strongly agreed" that it was very important. Likewise, just over 75% indicated core knowledge was essential to nurturing creativity (75.4%), and 95.9% believed that accountability can coexist with creativity. However, regarding measurement of creativity, over half of the respondents disagreed or strongly disagreed that creativity could be measured (53.4%) and that that measured results could be reliable (57.5%).

Table 1
Educators' View and Value of Creativity in Early Childhood Education in Terms of Importance

Value/Importance of Creativity Education	Strongly Disagree	Disagree	Agree	Strongly Agree	Not Applicable
		Wave 1			
I value creativity.	0(0.0%)	1(01.4%)	10(13.7%)	59(80.8%)	0(0.0%)
Students' creativity can be developed in the regular classroom.	0(0.0%)	4(05.5%)	16(21.9%)	21(69.9%)	0(0.0%)
Creativity is genetically endowed.	9(12.3%)	25(34.2%)	20(27.4%)	16(21.9%)	1(01.4%)
Developing creativity should be one of the main goals of early childhood curriculum.	1(01.4%)	6(08.2%)	33(45.2%)	30(41.1%)	1(01.4%)
I believe there are key educational developmental periods in cultivating creativity.	1(01.4%)	9(12.3%)	41(56.2%)	17(23.3%)	3(04.1%)
Ages three to five are critical years for the development of creativity.	0(0.0%)	4(05.5%)	31(42.5%)	35(47.9%)	2(02.7%)
Creativity is essential for enhancing student academic learning.	1(01.4%)	2(02.7%)	31(42.5%)	39(53.4%)	0(0.0%)
Educators are very important in enhancing students' creativity.	1(01.4%)	2(02.7%)	25(34.2%)	45(61.6%)	0(0.0%)
Regular classroom teachers are responsible to help students develop their creativity.	1(01.4%)	6(08.2%)	34(46.6%)	32(43.8%)	0(0.0%)
The school where I teach/administrate places emphasis on fostering student creativity.	1(01.4%)	14(19.2%)	25(34.2%)	33(45.2%)	0(0.0%)
Creativity can be measured.	6(08.2%)	33(45.2%)	21(28.8%)	5(06.8%)	7(09.6%)
The results of creativity measurement can be reliable.	6(08.2%)	36(49.3%)	12(16.4%)	4(05.5%)	13(17.8%)
Educators are very important in recognizing students' creativity.	1(01.4%)	2(02.7%)	35(47.9%)	35(47.9%)	0(0.0%)
I value creative behaviors.	0(0.0%)	1(01.4%)	30(41.1%)	42(57.5%)	0(0.0%)
Accountability can coexist with creativity.	0(0.0%)	1(01.4%)	32(43.8%)	38(52.1%)	0(0.0%)
Core knowledge is essential to nurturing creativity.	0(0.0%)	11(15.1%)	38(52.1%)	17(23.3%)	0(0.0%)
Liberal arts subjects (e.g., history, social studies, civics, geography, art and music, foreign language can strengthen creativity.	0(0.0%)	1(01.4%)	29(39.7%)	42(57.5%)	1(01.4%)
Creativity can be defined as the interaction among aptitude, process and environment by which an individual or group produces a perceptible product that is both novel and useful.	0(0.0%)	3(04.1%)	41(56.2%)	17(23.3%)	7(09.6%)
Lack of free-play can negatively influence children's creativity development.	0(0.0%)	5(06.8%)	31(42.5%)	34(46.6%)	2(02.7%)
Unlocking creativity supports academic success.	0(0.0%)	3(04.1%)	31(42.5%)	37(50.7%)	1(01.4%)
Psychological freedom unlocks creativity.	0(0.0%)	6(08.2%)	30(41.1%)	22(30.1%)	8(11.0%)

Note. $N = 73$. Survey response range was from 1= Strongly Agree, 2= Agree, 3= Strongly Agree, to 4= Not Applicable.

These data were supported by the narrative interview data, through which six sub-themes emerged: (a) recognizing the importance of creativity, (b) accountability can coexist with creativity, (c) difficulties in measuring creativity, (d) essential to academic learning, (e) important role of administrators, and (f) teachers' responsibilities to nurture creativity. Table 2 displays these themes and the number of interviewees (out of eight) whose comments were coded with each theme. Explanations and exemplars of these themes follow.

Table 2
Emergent Theme Frequencies among Eight Participants

Emergent Themes	Frequency	Number of Participants Making Statements Coded as Fitting the Theme
Recognizing importance of creativity	14	8
Accountability can coexist with creativity	4	4
Difficulties of measuring creativity	2	2
Essential to academic learning	4	3
Important role of administrators	4	3
Teachers' responsibilities	5	4

All interviewees recognized the importance of creativity. One respondent related its importance to preparing for the future in terms of career and college readiness. She stated: **"**Helping a child to be ready to live and compete in this world. That is what employers are looking for, whether they think out of the box or not, so it is very important!" Some respondents related its importance in terms of brain development. As one female teacher said, "It is [especially] important in younger ages, because as far as brain development, that's where their brains are built and encouraged to grow in different ways."

Four out of eight believed that accountability can coexist with creativity. The school leader said, **"**When we look at an effective instructional strategy in the classroom, we look at accountability as being an endpoint where we get to, but [in terms of] the options along the way…we have to provide more options for children to get there." He went on to say:

> We have to get results, but there are many paths we can take. I think there are many learning styles along the way…. Teachers want… [and need]…to release some autonomy to their students…Not "this is what you have to do" or "it is going to look like this" but instead to say "this is what we are going to come to, how do we arrive there?" So, definitely, accountability and creativity can coexist.

Respondents indicated that measurement of creativity was difficult. One participant stressed this through the following comment:

> Creativity is not necessarily the thing we grade on or report to parents about…but it something that we all recognize as important and try to nurture….The whole idea of perceiving creativity is,

> well, we all think we can recognize it, but at the same time when it comes to grading it, it is much, much less clear.

Both teachers and leaders noted creativity as essential to academic learning. One leader mentioned, "Creativity is not only for high-achieving students. In fact, creative opportunities can help students become more high-achieving." A teacher emphasized the role of creativity for enhancing students' learning. She said, "They are excited for those classes, so they want to come to school. So I think having creativity in the classroom makes students get more involved in their learning. It really helps our classrooms."

Likewise, three respondents commented on the important role that school leaders play in fostering and supporting creativity education. One teacher said, "No matter whether the school is public or private, the principal plays huge factor in what happens in the schools, including creativity in the curriculum…. [The leader] sets the tone for the school." Another leader elaborated, stating: **"**In terms of a model of school expectations, the administrator sets the bar….As administrators, I think we have to set an example and what our expectations are [for developing creativity]."

Four respondents believed nurturing creativity was and is the teachers' responsibility. Out of these four, three were leaders. An elementary school teacher said, "I believe it is every teacher's responsibility to pull the creativity out of students." Likewise, the school leader mentioned her expectations for teachers. She said, **"**Teachers want to allow students to have opportunities to be creative, but they have to teach state standards under lots of pressures, and get high scores." She went on to state: "…teachers really need to work on nurturing students' creativity as well as developing academic learning. I do have that expectation for my teachers."

Overall, respondents noted that nurturing creativity in the classroom was important to students' academic learning, and they perceived it as the teachers' responsibility, supported by school leaders/administrators. They were less clear when asked about identifying and measuring creativity in the classroom.

Barriers

What barriers do educators perceive relative to increasing creativity education in an early childhood education curriculum? Data addressing this question were explored using factor analysis. Factor analysis is a statistical analysis tool used to identify underlying variables and investigate their relationships, allowing the researcher to collapse a larger number of variables into factors based on their correlation to each other (Ary, Jacobs, Razavieh & Sorensen, 2006). The alpha reliability of the barrier items was .895, indicating strong inter-item reliability. Using the Kaiswer-Meyer-Olkin measure of sampling adequacy (KMO-test) and Bartlett's test of sphericity, both of which are used to examine the appropriateness of factor analysis the sample was deemed adequate for factor analysis. The value of KMO was greater than .06 (.773), and Bartlett's test was highly significant ($p < .001$). The extraction communalities (i.e., the amount of variance in each variable) for barriers were the lack of creativity metrics in assessment (.340), and educators' belief that nurturing creativity would be addressed in gifted programs or other extracurricular activities (.282). Excepting these two items, communality values were well-defined by this factor solution, therefore the researcher decided to extract these two items. Loadings under .50 were left blank. Table 3 displays these findings.

Three major groupings of barriers were extracted. These were: (a) lack of educators' understanding of creativity, (b) lack of children's freedom of expression and choices, and (c) curriculum restriction and high-stakes testing environments. In particular, the first factor was associated with lack of teachers' understanding of the definition of creativity, lack of agreement

between teachers' understanding of creativity education and that of administrators', and educators' lack of understandings of identifying students' descriptive creative-behaviors. The second factor corresponded most strongly to restricted choice for children, and suppression of creative expression. The third factor was most associated with a high-stakes testing environment and a narrowing of the curriculum associated with a lack of liberal arts subjects. Because of their moderately large correlations with both the first and second factors, lack of teachers' professional development opportunities specific to project- and problem-based learning, lack of curriculum flexibility, and lack of play activities bridged the "lack of educators' understanding of creativity" and "lack of children's freedom of expression and choices" groups.

Table 3
Loadings of Barriers to Increasing Curricular Emphasis on Creativity Education Variables

Barriers	Factor 1	Factor 2	Factor 3
High-stakes testing environments			.690
Lack of liberal arts subjects among curriculum			.734
Lack of teachers' understanding the definition of creativity	.886		
Lack of agreement between teachers' understanding of creativity education and that of administrators	.812		
Educators' lack of understandings of identifying students' descriptive creative-behaviors	.894		
Competition	.613	.559	
Restricted choice for children	.647	.904	
Suppression of creative expression	.633	.830	
Lack of teachers' professional development opportunities specific to project-and problem-based learning		.876	
Lack of curriculum flexibility		.851	
Lack of play activities		.852	

Qualitative data supported these findings, particularly relative to lack of children's freedom of expression and choices, and curriculum restrictions and high-stakes testing environments. The interviewees identified the following themes: (a) getting high scores on standardized testing, (b) lack of collaboration with teachers, (c) lack of resources (money, and teacher aides), (d) disconnect between early childhood education and elementary education, (e) lack of parents' support, and (f) time constraint. Table 4 displays these findings. Explanations and exemplars of the emergent themes follow.

Table 4
Emergent Barrier Theme Frequencies among the Eight Interviewees

Barriers	Factor 1	Factor 2	Factor 3
High-stakes testing environments			.690
Lack of liberal arts subjects among curriculum			.734
Lack of teachers' understanding the definition of creativity	.886		
Lack of agreement between teachers' understanding of creativity education and that of administrators	.812		
Educators' lack of understandings of identifying students' descriptive creative-behaviors	.894		
Competition	.613	.559	
Restricted choice for children	.647	.904	
Suppression of creative expression	.633	.830	
Lack of teachers' professional development opportunities specific to project-and problem-based learning		.876	
Lack of curriculum flexibility		.851	
Lack of play activities		.852	

Getting high scores on standardized testing. Having standardized tests and achieving high scores were seen by respondents as key barriers to increasing creativity education in early childhood education. All of the interviewees indicated they perceived that the pressure associated with standardized tests was a strong barrier to devoting time and curricular space to creativity education. According to an elementary school teacher:

> Test scores and standardized testing are driving the activities that I put in my classroom. My job, the amount of money that I make to feed my family and take care of myself depend on my students, their results and their scores. Having that pressure is a huge barrier.

Another respondent commented on No Child Left Behind stating: "Creativity has been stifled for so long with the No Child Left Behind legislation. A lot of teachers feel forced to channel their curriculum to teach to a test." She went on to say: "We just don't have time for nurturing creativity."

Not only teachers, but also leaders perceived the pressures associated with high-stakes standardized tests as strong barriers to increasing creativity education. One school leader said, "Teachers have to work in a highly structured and test-driven environment…that pushes the creative part aside."

Lack of collaboration with teachers. Regarding perceptions that lack of collaboration with other teachers hindered them from nurturing creativity, five respondents noted that while they used to engage in collaboration with other teachers, increasingly teaching resources seem to have become tools for competing to get higher scores. As a result, according to one respondent, collaboration has all but disappeared: **"**I am concerned about the way education is moving…the collaboration piece is getting smaller and smaller."

Lack of resources (money and teacher aides). Four respondents indicated that lack of resources was a barrier for nurturing creativity in schools. One teacher said, **"**Let's say we are going to create something we have learned about. The responsibility to buy all the stuff is on me….It is not provided." Similarly, another related lack of funding and help in the classroom (e.g., teacher aides) as barriers to developing and devoting time and space to increasing creativity education.

Disconnect between early childhood education and elementary education. This theme was best expressed by the preschool director. He pointed out that, in his view, elementary school teachers were not as aware of constructivism as early childhood education teachers were. He stated: **"**[E]ducators who have gone through early childhood education programs are aware of constructivism…but as a principal at an elementary school, I didn't see teachers who necessarily came with that sort of mindset." He explained his observations as follows: "When they [elementary education teachers] take over a first or second grade classroom, it tends to be a more traditional approach to education, such as drilling…this is not what I see in the preschool setting."

Lack of parental support. Three respondents commented on a lack of resources associated with parental support as a barrier to increasing creativity education. One said, **"**We are dealing with a high percentage of low income students…. 85% of our students are not getting much interaction with their parents because they are busy working two and three jobs." Elaborating on this idea, another talked about the role of the Parent-Teacher Association (PTA). She said, "My husband, who is working at… has an Art-mom. PTA pays for [her]…. Parents' support is the place where creativity happens."

Time constraints. Consistent with the concerns regarding high-stakes testing, respondents pointed out the time constraints associated with curricular rigidity. A teacher commented: **"**We have to provide 90 minutes of specific core instruction…30 minutes of math instruction… [then there are] certain children who need extra time and help…. There is no compromising in that. It makes me feel really tight."

All three of the factor groupings were represented in the qualitative data. Specifically, Factor 1 was expressed through the disconnect theme, Factor 2 through the lack of resources theme, and Factor 3 through pressures and constraints associated with time and high-stakes standardized testing.

Supports

What supports do educators need to nurture creativity education in an early childhood education curriculum? Factor analysis was again used to summarize and describe the data by grouping variables that were correlated with each other. The alpha reliability of the support survey items was .828, indicating strong inter-item reliability. Communality values were well-defined by this factor solution, with all variables exceeding .45. KMO. Bartlett's tests confirmed that this sample was also appropriate to conduct factor analysis. The value of KMO was greater than .06, (.647) and Bartlett's test was highly significant ($p < .001$). Perceptions specific to creativity education supports in early childhood education emerged clustered into four factors.

These results accounted for 71% of the variance. Loadings under .50 were left blank. Table 5 displays these findings.

Table 5
Loadings of Supports to Increasing Curricular Emphasis on Creativity Education Variables

Supports	Factor 1	Factor 2	Factor 3	Factor 4
Loosen the regulation of state standardized tests		.735		
Include more liberal arts subjects among curriculum				
Teachers' clearer understanding of the definition of creativity			.808	
There is an agreement between teachers' understanding of creativity education and that of administrators'				
Identify students' descriptive creative behaviors	.839			
Include creativity metrics in assessments		.537		
Educators' belief that nurturing creativity should be addressed in general curricular activities	.720			
Loosen competition				
Teachers respect students' choices	.785			
Making children feel comfortable showing creative expressions	.702			
Provide teachers with professional development opportunities specific to project- and problem-based learning	.557			
Increase curriculum flexibility		.756		
More space for free-play activities				.831

The first factor consisted of identifying students' descriptive creative behaviors, educators' belief that nurturing creativity should be addressed in general curricular activities, teachers respect for students' choices, making children feel comfortable showing creative expression, and providing teachers with professional development. The second factor contained loosening regulations associated with standardized tests, including creativity metrics in assessments, and increasing curricular flexibility. The third factor consisted of teachers' clearer understanding of the definition of creativity, and the fourth, more space for free-play activities.

From these findings the factor groupings were derived as: (a) educators' attitudes toward creativity and efforts to nurture it, (b) flexible curriculum and including creativity metrics in assessment, (c) educators' clearer understanding of creativity, and (d) free-play activities. Because of their moderately large correlations with both the first and second factors, lack of

teachers' professional development opportunities specific to project- and problem-based learning, lack of curriculum flexibility, and lack of play activities bridged the "lack of educators' understanding of creativity" and "lack of children's freedom of expression and choices" groups.

Findings from the qualitative data revealed four emergent support themes. Table 6 displays these findings. Explanations and exemplars of the support themes follow.

Table 6
Emergent Support Theme Frequencies among the Eight Interviewees

Emergent Themes	Frequency	Number of Participants Making Statements Coded as Fitting the Theme
Collaboration among teachers	5	5
Having common core (Having more spaces for teaching)	3	3
College preparation program	6	4
Having more teaching aides	4	3

Collaboration among teachers. A majority of respondents pointed out having more collaboration among teachers could nurture creativity. One teacher said, **"**Effective collaboration with teachers will be a support… Having more collaboration with teachers would be really powerful." Leaders also believed educators need to have time and space to collaborate to enhance creativity education. Commenting on this, the school leader said, **"**Teachers need to work together. Some of our lower grade teachers are best at looking at ways to enhance creative elements for children…creating time and space to collaborate among teachers would help share this knowledge."

Impact of common core. Respondents believed that having common core standards would enhance creativity education. One respondent stated: **"**Once we have common core standards [next year] we will have clear guidelines for the big ideas to teach children." She went on to explain that this clarity would help her create time and space for more creativity in terms of her pedagogy. She said, "…but we can use different things…different ways of teaching to address them."

College preparation program. This theme emerged across six of the eight interviews. In terms of support, four respondents pointed out that colleges should provide more creativity training for teachers coming into the teaching profession. The other respondents indicated that there should be a better connection between early childhood education curricula and elementary education programs. The school leader explained as follows:

> I was an elementary school principal in this school district and then came to this position [preschool director]. I realized what a small degree of understanding I had about early childhood education. Now I have better understanding so I can share with my colleagues and principals at the elementary school levels.

He went on to say:

> College preparation programs for elementary school teachers should look closely at constructivist and creativity learning

> approaches, especially in early childhood education. This needs to be part of the curriculum.

The support themes: collaboration among teachers, perceptions of content clarity benefits associated with a common core, college preparation programs that specifically address creativity education and the early childhood education setting, and having more resources and supports (e.g., teaching aides), were further supported the quantitative data in terms of collaboration (i.e., Factor 1: educator's attitudes toward creativity and efforts to nurture it); common core and flexibility (i.e., Factor 2: flexibility), teacher preparation (i.e., Factor 3: educator understanding), and teaching aide resources (i.e., Factor 4: flexible schedules and free play activities).

Discussion

The discussion presents the creativity value and importance findings, followed by the barrier and support perception findings discussed relative to the literature and purpose of the study.

Creativity Education Value and Importance

The respondents in this study clearly recognized the value and importance of creativity education. By combining the percentage of strongly agree and agree categories, more than 70% concerning the importance of creativity education. Over 90% believed that they valued creativity and creative behaviors, and more than 80% recognized its importance in early childhood education. These findings are consistent with those reported by Runco and Johnson (1993, 2002) and Runco (2003), who found that most of their participants (teachers) valued creative students and a creative classroom atmosphere. Nearly all the respondents (95.9%) in this study believed that creativity is an essential skill for academic learning, and conversely, that academic learning enhances children's creativity (75.4%).

In sum, awareness of the importance of nurturing creativity in the classroom and recognizing their (i.e., educators) roles in working to develop children's creativity, and believing that creativity is an essential skill for academic learning and vice versa, were evident and valued among the PK-3 educators surveyed and interviewed. Even so, while they believed they knew it when they saw it (i.e., creativity), they were less clear and positive about assessing creativity.

Just under one-third of respondents thought that creativity could be assessed; only 21.9% believed that the results of creativity measurements could be reliable. From the interview data, the researcher found that even though some respondents agreed that creativity could be assessed, they felt that they did not have clear, concrete criteria or sufficient guidance on how to measure creativity in their classrooms. These results conveyed that PK-3 educators considered that while creativity could be developed in the classroom, a majority expressed uncertainty about clear, consistent identification and assessment of creativity. This finding was consistent with research by Beghetto (2010, 2015) and Skiba, Tan, Sternberg and Grigorenko (2010) regarding creativity assessments as limited at best.

Barriers

The extracted barrier factors were: lack of educators' understanding of creativity, lack of children's freedom of expression and choices, and curricular restrictions and high-stakes testing environment. The total variance accounted for by these factors was 69.01%. The first factor was related to a lack of educators' understanding of creativity. During the interviews respondents tried to clarify the question by asking "what kind of creativity do you mean?" The researcher interpreted this to imply that for educators describing and defining creativity was somewhat less than concrete. According to Baer (1997) and Cropley (2000) there was and remains uncertainty in defining creativity. Qualitative data explicated the researcher's interpretation. Interviewees

mentioned they wanted to help students nourish their own creativity, but said they had limited knowledge about educational strategies they could use to cultivate creativity. Respondents' believed that a lack of understanding of identifying students' creative behaviors acted to inhibit creativity in their classrooms. The second factor was associated with a lack of children's freedom of expression and choices. This finding was consistent with the literature (Darling-Hammond & Snyder, 1992; Ginsburg, 2007; Luftig, 2000; Murfee, 1995; Nicol, 2010; Smith, 1996) in terms of fostering creativity in PK-3 education settings through play-based activities and processes where children engaged free-play, imagination and fantasy. The third factor focused on high-stake testing and curricular restrictions. The respondents in this study believed that school time is barely sufficient to cover core-knowledge and to prepare students for taking tests. Even though they recognized the importance of creativity education in early childhood education, they were hesitant to include activities that foster creativity due to concerns that time spent nurturing creativity took away from time needed to prepare for mandatory tests. This finding was consistent with the literature in terms of the curricular narrowing effect of high-stakes testing (Berliner, 2009; Deke & Haimson, 2006, Eisner, 2002).

The interview barrier findings reinforced the quantitative data in terms of time and curricular pressures associated with high-stakes testing, increasingly limited teacher collaboration time and space, resources and supports, and a perceived disconnect between teacher preparation and fostering an educational environment and curriculum for creativity education. A preschool director noted that he believed this disconnect contributes to a lack of understanding of creativity.

Supports

When asked which supports they perceived increased creativity education four factors emerged: educators' attitudes toward creativity and efforts to nurture it, flexible curricular schedules and creativity metrics in assessment; educators' clearer understanding of creativity, and free-play activities. The total variance accounted for by these factors was 70.53%. The first factor addressed attitudes toward creativity and efforts to nurture it. Respondents believed that identifying creative behaviors and constructing circumstances where children feel comfortable showing their creative expressions served to support opportunities for increased creativity. This finding was consistent with research by Smith (1996), Sternberg and Lubart (1999), and Sparks (2001) who found that children's creativity could be nurtured and developed by educating teachers to espouse positive beliefs and perceptions about creativity, and to acquire techniques or methods to support classroom creativity. The second factor was associated with loosening standardized testing regulations and increasing curricular flexibility. This factor showed that respondents' perceived great pressure associated with standardized testing, and that this hindered them from nurturing classroom creativity. Respondents believed that having more flexible schedules could increase opportunities for creativity development. The third factor was related to educators' understanding of creativity, and implied that the PK-3 educators in this study may not have a clear and consistent understanding of the meaning of creativity or identification of creative behavior in the context of school. Finally, the fourth factor was having more space for free-play activities. This result was also supported by findings from the literature. A clinical report by Ginsburg (2007) concluded that play was essential to development, allowing children to use their creativity while developing their imagination, dexterity, and physical, cognitive, and emotional strength. Likewise, Luftig (2000) argued there is "…a strong indication that creative thinking [is] facilitated by involvement in the arts" (p. 223); as did Bequette (2012) and Wynn and Harris (2012) relative to STEM education, art and design. While this study did not delve into

educator perceptions regarding the PK-3 pedagogical approaches (e.g., art, music, etc.) employed in classrooms, given the arguably strong association between play, arts education, and creativity, this would be a fruitful area of further inquiry.

Like the barrier findings, the interview support findings reinforced the quantitative data. Specifically the interview data emphasized the importance of creating time and space for teacher collaboration, using a common core foundation to guide but not limit curricula, and the need for increased resources and supports (e.g., teaching aides). In terms of teacher preparation programs, interviewees noted that colleges should provide more creativity training for pre-professional teachers.

Implications for Action

The barrier and support findings were mutually reinforcing, which lends strength to the implications that may be derived. Barrier Factor 1 (educators' understanding, attitudes toward creativity and efforts to nurture it) and Support Factor 3 (educators' clearer understanding of creativity) addressed issues associated with teacher attitudes and understanding. The respondents did not have a clear or concrete understanding of creativity, and perceived that their problematic and somewhat ineffectual conceptualization of creativity hindered them from nurturing it in their classrooms. With respect to subsequent action, we propose that teacher education programs and ongoing professional development need to provide an appropriate definitional foundation from which PK-3 educators can build their lesson plans and advance their teaching to more specifically target creativity education. In terms of specific teacher-training, preservice teachers in particular need to see these pedagogies modeled for them and be able to engage and implement activities and pedagogical strategies during scaffolded clinical experiences designed to nurture and develop creativity.

Barrier Factor 2 and Support Factor 4 focused on freedom of expression, choices and the importance of free-space and play. Related to this, Barrier Factor 3 and Support Factor 2 targeted the same issues from the perspective of curricular rigidity and high-stakes testing. Respondents perceived their current early childhood education curricula as interfering with children's freedom of expression and choice, restricted in large measure by the pressures associated with high-stakes testing that serve to shape, in limiting ways, the daily learning environment of PK-3 classrooms. Because of this, it is critical that we draw attention and focus to the value of creativity education. It is also important to make clear the impact high-stakes testing is having on PK-3 setting. Efforts need to be engaged to establish a shared understanding of creativity as essential to, as opposed to in conflict or competition with academic learning. Such an understanding would potentially create an underlying will to balance acts of teaching and arts of teaching, making creativity development and the inherent enhanced and enriched living/learning potential an integrated part of the curriculum (Beghetto, 2015; Green, 2013).

Ultimately, efforts such as these could and we believe would culminate in creating greater time, space, flexibility, and motivation for including explicit creativity education and activities. Given the importance of creativity development, especially when children are young (Dacey, 1989; Gardner, 1993; Khatena, 1971, as cited in Meador, 1992), the current high-stakes testing environment and curricular rigidity that often accompanies it, education leaders and decision-makers (e.g., local and state school boards, legislatures and other policy makers) must be brought into this conversation. Likewise, issues negatively impacting creativity learning must be made clear to those decision makers at the state and national levels, if positive change is to occur.

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