OUTSTANDING GRADUATE RESEARCH PAPER AWARD

Nurturing Creativity: Louisiana Second Grade Teachers' Perspectives and Practices

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Abstract

The researcher constructed this descriptive case study with the intention of determining second grade educators' perceptions of creativity, and to provide insight into how creativity is nurtured in general education classrooms while identifying barriers to nurturing creativity. Using Eisner's (2017) framework of educational connoisseurship and criticism, the researcher provided a rich description, interpretation, and evaluation of experiences among eight teacher participants from two school sites in the same Louisiana district. Data collection included interviews, observations, and teacher-created artifacts. Evidence from the observations showed varied levels of nurturing creativity among teacher participants. Although all of the teachers in the study claimed to value creativity, they did not all practice pedagogy that specifically nurtured creativity. The findings were similar to other studies where teachers believed creativity to be highly valuable (Andiliou & Murphy, 2010, Kampylis, 2010), but discrepancies were reported between teachers' assertions and actual classroom practices (Cho, Pemberton, & Ray, 2017). Barriers to nurturing creativity within the classroom were similar to the findings of the literature review: high-stakes testing, time-constraints, compartmentalization, and primarily associating creativity with the arts (Beghetto, 2015; Cho et al., 2017; Craft, 2005; Eisner, 2002; Muirhead, 2011). Evidence seemed to support the statement that curriculum did not dictate whether creativity was nurtured in the classrooms and that the teacher plays a significant role in determining whether creativity is fostered in the classroom. The researcher suggests building teacher knowledge about the creative process, with methodology for action, to support creative pedagogy in all subjects.

Keywords: creativity, elementary education, science, social studies

Introduction

As the complexity of the world evolves, innovation and creativity are vital to social, political, and economic success (Robinson, 2006). Said-Metwaly, Kyndt, and Van den Noorgate (2017) regarded creativity as a treasurable quality, having the potential to improve society. While creativity was reported to be greatly valued by teachers (Andiliou & Murphy, 2010; Kampylis, 2010), Cho et al. (2017) reported discrepancies between teachers' claims and actual classroom practices. Evidence supports the statement that creativity is not often nurtured in schools and classrooms as Kim (2011) revealed that creative thinking scores of elementary students, measured by the Torrance Test of Creative Thinking (TTCT), had notably decreased from 1974 to 1990. Cho et al. (2017) noted, "the steady and persistent decline in TTCT scores indicates that creative thinking has declined over time, especially among children in kindergarten through third grade." (p.2). Due to this claim, and recent trends in education, the researcher elected to conduct a study of second grade teachers' perspectives and practices regarding creativity.

Creativity is at the forefront of the latest education shifts worldwide, including China (Cho et al., 2017), Australia, Canada, England, Taiwan, and the United States (Collard & Looney, 2014, Perry & Collier, 2018). Educational systems have placed a high regard on creativity and describe the potential of creative individuals to solve complex societal issues and improve the economy (Collard & Looney, 2014). Creativity expert Sir Ken Robinson (2006), in a TED talk with over 18 million views, pointedly described how *schools kill creativity* and pushed for a change in schooling practices. Research reflects that creativity can be undermined and restricted (Beghetto, 2005; Craft, 2001), and Niu and Steinberg (2003) suggested that the educational system's focus on standards and high-stakes testing leaves little room for imagination and invention.

Au (2007) found that high-stakes tests significantly alter the curriculum by narrowing content through the elimination of untested subjects and material. Au also reported that information is often compartmentalized and taught in isolation, thus restricting divergent thinking. Furthermore, teachers frequently rely on teacher-centered instructional methods, which rarely foster creativity, in order to cover the abundant test content (Au, 2007, 2011). Eisner (2017) stated that research repeatedly reflects the finding that teachers teach the same curriculum using different methods.

Education experts consider creativity a crucial goal in education systems across the globe. The purpose of this research was to determine second grade teachers' perceptions of creativity and

creative teaching practices, to identify data among classrooms regarding the nurturing of creativity, and to identify barriers to the cultivation of creativity in the schools and classrooms. In exploring how creativity is fostered in second grade classrooms, the following research questions were formed:

1. What perceptions do teachers have of creativity and creative teaching practices?
2. What findings are evident in each classroom regarding the nurturing of creativity?
3. What barriers to creativity cultivation are evident in the schools and classrooms?

Literature Review

A review of literature indicated that creativity is a skill critical for 21st century problems and learning. Robinson (2006) pointed out that the world will face unknown problems in the next 20 years and the need for creative individuals to solve such complex problems is paramount. The need for creative cultivation is evident, but research into creativity has been somewhat controversial and included a hodge-podge of different theories and fields of study throughout history (Craft, 2001, Runco, 2003).

Cultivating Creativity

Scheffer et al. (2017) compiled a valuable list of ways to cultivate creativity; the suggestions included simple habits such as movement, risk-taking, diverse experiences, meditation, or quiet time, carrying a notebook, trashing work if needed, disregarding norms, and collaborating. Hartley and Plucker (2014) contributed to the list by including brainstorming, telling jokes, group discussions and projects, writing down new ideas, answering riddles, and creating things individually. Hartley and Plucker also noted that many of the sources available for creative activities to use in the classroom are over 20 years old. If creativity is indeed a necessary component of 21st-century learning (Collard & Looney, 2014), teachers need fresh ideas to enhance creativity within the general education classroom.

When evaluating aspects of creativity within the field of education, teachers' perceptions will directly affect the creative pedagogy within each classroom (Sharp, 2004). Zimmerman (2009) claimed that creativity is teachable and identified educational interventions that promote traits of creativity. These components included persistence, imagination, reflection, and creating work with personal meaning. Other concepts noted were problem-solving skills, curiosity, and questioning, as well as divergent thinking, shown by making connections to prior knowledge and experiences (Runco, 1999).

Creative Pedagogy

Progress toward creative pedagogy requires educational leaders to develop an understanding of creativity and the creative process (Cho et al., 2017). Once creative pedagogy is established, teacher training could provide instruction for creative teaching and learning, through education courses and professional development of current educators (Cho et al., 2017; Lin, 2011). Creativity is a process or activity with a useful result (Craft, 2001; National Advisory Committee on Creative and Cultural Education, 1999; Ucus, 2018). The creative process may include risk-taking, persisting, observing, experimenting, and allowing for mistakes (Clarke & Cripps, 2012). Creative pedagogy includes teaching creatively, teaching to specifically foster student creativity, creative learning opportunities (Lin, 2011), and addressing individual learners through inquiry-based learning and student-centered instruction (Clarke & Cripps, 2012).

Barriers to Nurturing Creativity

The second grade Louisiana curriculum allows many opportunities in non-arts subjects, for fostering creativity (Louisiana Believes, n.d.). Teachers face numerous obstacles in promoting creativity, ranging from lack of knowledge to misconceptions about creativity and the creative process (Robinson, 2006; Ucus, 2018). Multiple studies showed teacher misconceptions regarding traits of creative persons (Beghetto, 2010a; Cho et al. 2017; Kampylis, 2010; Ucus, 2018). Teacher misconceptions, while multi-faceted, are not the only barriers to nurturing creativity. Cho et al. (2017) additionally noted students' limited choice, creative suppression, compartmentalization, and high-stakes testing, to be factors.

The association of negative behaviors with some creative traits indicated a need for explicit methods of fostering creativity while keeping a safe, positive working environment in the classroom (Beghetto & Kaufman, 2014). Additionally, Schacter, Thum, and Zifkin (2006) reported that American teachers seldom use methods that promote creative thinking, particularly in the minority and low-performing classrooms, indicating that research on creativity and social class would be beneficial. Sali and Akyol (2015) found the most significant obstacle for fostering creativity in the elementary classroom was teachers' lack of training in cultivating creativity.

Methodology

Case study research "involves the study of an issue explored through one or more cases within a bounded system" requiring "in-depth data collection involving multiple sources of information" (Creswell, 2007, p. 73). This case study was conducted within two school sites using

Eisner's (2017) educational connoisseurship and criticism framework as a guide for data collection. Educational connoisseurship and criticism require the researcher to evaluate an educational experience. The following study was a descriptive case study of second grade teachers' perceptions and practices of nurturing creativity.

Sample

The participants were second grade teachers at two public elementary school sites that both adhered to the Louisiana State Standards: Compass Elementary, and Ocean Elementary. Ocean Elementary is a Title-One school. The researcher conducted the study among eight second grade classrooms. A combination of convenience sampling, based on willing participation and reasonable location distance, was employed; along with purposive sampling with criteria including second grade teacher participants with a range of teaching experience, reflecting variation within the case (Creswell, 2015).

Compass Elementary was one of the top schools in its Louisiana district, boasting a performance score of 95.9 and an A on the school report card, for the 2017-2018 school year (Louisiana School Finder, (n.d.). The school was both a 'Top Gains Honoree' and 'Equity Honoree' with no struggling sub-groups or student behavior issues. The student body of more than 800 students was primarily Caucasian, with 17% reported students of color. Compass Elementary is not a Title-I school. The state site reported that 47% of the students were considered economically disadvantaged. Students with learning disabilities made up 11% of the student population.

At the time of the study, Ocean Elementary was a Pre-K through 5th grade Title-one school with 74% of the population considered economically disadvantaged (Louisiana School Finder, (n.d.). The school had a student body comprised of 62% students of color and 38% Caucasian and hosted nearly 600 students, with 12% considered to have a learning disability.

Data Collection

The researcher gathered data to provide evidence of nurturing and barriers to nurturing creativity, using multiple data sources including interviews, observations, and artifacts. All observations were documented on an observation protocol, audio-recorded, and transcribed by the researcher. Additionally, lesson plans, student work, learning materials, and a project rubric were collected; as well as research generated documents produced by participants to demonstrate how creativity was fostered in the classroom.

The researcher approached data collection focusing on the dimensions of school ecology that guide educational connoisseurship: intentional, structural, curricular, pedagogical, and evaluative (Eisner, 2017). The intentional dimension reflects the intended educational purposes which may be both explicit and implicit, or intended and operational, with both having particular importance. The structural dimension includes to the structure of the educational setting which may include the layout of the school, the timing of subjects, grade level classrooms, and even routines set forth and followed by the majority. The curricular dimension shows the quality of the curriculum's content, goals, and activities. Students also learn what the teacher deems important by the amount of time allotted to particular subjects and grading practices. Next, the pedagogic dimension of school ecology reflects the importance of the teacher's role in mediating curricula since "how students experience the curriculum is inextricably related to the way in which it was taught" and there is essentially little distinction between curriculum and teaching due to the teacher's facilitation of the learning process (Eisner, 2017, p.77). Finally, the evaluative dimension relates to evaluation practices. Eisner noted several questions related to the evaluative dimension that stretch beyond test validity and reliability: "Does testing influence what is taught? Does it shape teaching methods?... Does it create a status hierarchy among subjects that children study?" (p. 80).

Data Analysis

In harmony with educational connoisseurship, data analysis was guided by educational criticism; "for criticism provides connoisseurship with a public face" (Eisner, 2017, p. 85). Similar to the creative process, the process of qualitative data analysis can be somewhat frustrating, and the investigator must have a "high tolerance for ambiguity" and commitment to persevere (Merriam & Tisdell, 2016, p. 18). For the taxonomic analysis, the researcher categorized: beliefs, evidence, and barriers, which correlated to the research questions through the lens of the five dimensions of educational connoisseurship (Eisner, 2017; Onwuegbuzie, et al., 2012). The dimensions of educational criticism include: description, interpretation, evaluation, and thematics. The description should be a vivid representation of the observation experience while the interpretation is an explanation of the meaning or understanding of experience through the framework of school ecology. In the evaluation portion the researcher shares a determination as to whether practices are beneficial or valuable.

The fluidity of qualitative research allowed the study to move with the flow of findings, as variables were unknown in the initial planning stages (Eisner, 2011; Merriam & Tisdell, 2016). Beginning with one school, first-round interviews, artifacts, and observations data was color-coded, as intentional, structural, curricular, pedagogic, or evaluative. The researcher assigned a color to each dimension and highlighted data accordingly. Next, the researcher created sticky notes for each piece of data from the observations, which were color coded for the represented participant. Each participant had a specific bright colored sticky note. For the taxonomic analysis, the researcher created a large table, with headings across the top labeled: beliefs, evidence, and barriers, which correlated to the research questions (Onwuegbuzie, et al., 2012). The researcher used the dimensions of school ecology to created rows along the left margin. The sticky notes were initially placed in the corresponding dimension of school ecology, under the appropriate heading.

During the process of transferring the data, the researcher scrutinized each piece. As commonalities emerged, the researcher placed them into groups under the appropriate dimensions. The researcher followed the same process to add data from the second site using pastel colored sticky notes. Once the researcher completed grouping the data regarding teacher perspectives, the process was repeated for the *evidence* column and for the data under *barriers*. Initially, the data regarding barriers were less substantial and had many outliers, which motivated the researcher to construct the second-round interview to fill in the blanks.

After the initial analysis, the researcher assessed bias through triangulation of interview, observation, and artifact data with anecdotal notes for follow-up interviews as themes materialized. Data from the second-round interview provided more information concerning barriers to creativity. The themes were predominately structural, with outliers more focused on students.

Findings

The presentation of findings is guided by the research questions, with the evidence portion assembled by dimensions of school ecology: What perceptions do teachers have of creativity and creative teaching practices? What findings are evident in each classroom regarding the nurturing of creativity? What barriers to creativity cultivation are evident in the schools and classrooms? Pseudonyms were assigned to each participant to preserve anonymity.

Teacher Perceptions

Teacher's implicit and explicit intentions influence student learning, motivation, and creative development (Eisner, 2017). Evidence from the initial interviews showed a shared belief in the

importance of creativity, among all eight participants (see table 1). Previous studies from the literature review also reported creativity to be greatly valued by teachers (Andiliou & Murphy, 2010; Kampylis, 2010). The participants in the study listed positive attributes of creativity throughout the interview and emphasized the *important* role that creativity played in their classrooms.

Table 1

Teacher Beliefs about the Role of Creativity

Teacher	Beliefs
Ms. Naron	Crucial; keeps students engaged; makes learning lasting and meaningful; makes teaching and learning fun; encourages critical thinking and problem-solving skills
Ms. Sawyer	Important; helps students grow and form opinions
Ms. Eunice	Important and appreciated; not just art; unique/original responses highly praised
Ms. Weis	HUGE; encourage them to find answers and discoveries on their own; in all subjects
Ms. Abe	Large; no two children are alike
Ms. Parks	Important; student choice and control
Ms. Iris	Very important; students would not thrive without
Ms. Alan	Very important; used a lot

The congruence of teachers' beliefs somewhat dissipated when the participants were asked to define creativity. Lin (2011) noted a lack of agreement concerning the definition of creativity. A lack of consensus regarding the definition of creativity was apparent among the participants also. When asked, "How would you define creativity?" Each teacher had a different response. Three of the responses did include the term "imagination" and five responses included some type of end-result or product. None of the responses mirrored the National Advisory Committee on Creative and Cultural Education's definition of creativity; "an imaginative activity fashioned to build outcomes that are original and of value" (Craft, 2001, p. 14; National Advisory Committee on Creative and Cultural Education, 1999, p. 29; Ucus, 2018, p. 112).

While the participant definitions did not reflect the provided definition verbatim, many of the concepts were included. Said-Metwaly et al. (2017) noted, "Researchers generally agree that creativity involves the production of novel and useful responses" (p.243). Including the production of a product in the definition of creativity has been well established, and more recently, the concept of appropriateness or "value" has been embraced (National Advisory Committee on Creative and Cultural Education, 1999, p. 29). Only one participant, Ms. Eunice, elaborated on the importance of usefulness or value in creativity's end products. Ms. Eunice mentioned that "unique/original responses to a question… are highly praised."

Through the interviews and teacher-created artifacts, the participants provided an extensive list of activities believed to nurture creativity in their classrooms (see table 2).

Table 2

Activities Believed to Foster Creativity

Teacher	Activities
Ms. Naron	Choice: partner, small group, independent work choice: model, diagram, original writing, song, rap, painting, model
Ms. Sawyer	Make up word problems, creative writing, draw things, connect to real-life, add to stories, write spelling words in a shape, crafts, read books, brainstorm, write poetry
Ms. Eunice	Art lessons, student led discussions, science projects
Ms. Weis	Movement, books, interactive media, art lessons, free play, building, comparing questions and findings
Ms. Abe	Centers
Ms. Parks	Student choice, student control over learning, hands on activities, STEM lessons, step-by-step drawing, blank paper
Ms. Iris	Writing, drawing, weekly art activities
Ms. Alan	Journals, art lessons, directed drawing

Beghetto (2005) suggested that classroom discussions were an ideal opportunity for promoting creative thinking skills. Zimmerman (2009) identified educational interventions that promote traits of creativity, including persistence, imagination, reflection, and creating work that had personal meaning. Other concepts noted were problem-solving skills, curiosity, questioning,

and divergent thinking, shown by making connections to prior knowledge and experiences. Hartley and Plucker (2014) added brainstorming, telling jokes, group discussions and projects, writing down new ideas, answering riddles, and creating things individually, to the list. Habits such as movement, risk-taking, diverse experiences, meditation, or quiet time, carrying a notebook, trashing work if needed, disregarding norms, and collaborating were also listed as everyday activities that promote creativity (Scheffer et al., 2017). Evidence suggested that the teachers seemed to have an accurate concept of activities that could be used to nurture creativity, but habits and processes, such as persistence, reflection, meditation, and risk taking were not mentioned.

Evidence in the Intentional Dimension

The intentional dimension reflects the intended educational purposes, "goals and aims that are formulated for the school or classroom" (Eisner, 2017. p. 73). The weekly lesson plans from Compass Elementary, a top performing school, indicated intentional instruction and activities to promote creative thinking. The singular lesson plan, likely created specifically for the observation, from Ocean Elementary, a school of lower socioeconomic status, provided no evidence of the purposeful activities geared toward nurturing of creativity. A study by Schacter et al. (2006) found that "American teachers rarely use methods that promote creative thinking. This was especially the case for teachers in minority and low-performing students" (pp. 391-392) Regardless, both schools reportedly followed the same state standards which had creative performance expectations.

Another difference in intentionality, though not specifically related to creativity, emerged from data collected during the observations. At Compass Elementary, students' responses often included restatement of the question. Evidence suggested that the teachers had previously instructed students to answer in complete sentences and restate questions. Although the researcher did not observe specific instruction on restating, it seemed that the practice of answering in full sentences and restating questions had been modelled and practiced within the classrooms and the concept was an engrained part of student and teacher interactions. One teacher, Ms. Eunice, specifically praised a student for restating.

There was no indication that students at Ocean Elementary, the Title-I school, had been trained to answer in full sentences or restate questions when responding. Anyon's (1980, 1981) research, in schools of varying socioeconomic status, indicated that teachers from the lower socioeconomic schools did not consider creativity and innovation as necessary for work tasks

(Anyon, 1980, 1981). At Ocean Elementary, it seemed that teaching students to answer in complete sentences and restate questions, was not a critical skill.

Evidence in the Structural Dimension

The organization of the school, how classrooms are set up, how the day is divided, structured, and graded, are all components of the structural dimension. According to the humanistic viewpoint, external environmental factors, such as space and time, affect human behavior (Orestein & Hunkins, 2017). The seating arrangements in all of the classrooms were flexible and conducive to individual, partner, and group work. In a humanistic based curriculum, teachers often include cooperative learning, individualized instruction, and social activities that support the development of creativity (Orenstein & Hunkins, 2017).

All of the second grade classrooms, in the study, were self-contained; meaning that the teachers taught all subjects and the students did not travel from class to class, with the exception of physical education and computer class once a week. In an anecdotal note, after an observation with Ms. Weis, the researcher noted that the teachers at Compass Elementary share the responsibility of writing lesson plans. Each teacher was responsible for the plans of one subject and dispersed the plans among the teachers. Ms. Weis mentioned that Ms. Naron was the science expert and that her, Ms. Weis's presentation of the science lessons were probably not as good as Ms. Naron's. Although they followed the same plans, Ms. Naron mentioned that some of the teachers did not always do the experiments that were in the plans because the preparation required a time to gather required resources; the concept of teacher choice is further discussed in the pedagogy portion of the interpretation.

Regarding structure, the researcher questioned whether self-contained classrooms, or the school's "organizational envelopes" were beneficial to the nurturing of creativity; researchers focusing on the structural dimension of school ecology, "note how the organization envelopes we have designed affect how education occurs" (Eisner, 2017, p. 75). After speaking with Ms. Weis and Ms. Naron about the varied levels of implementation of science experiments, the researcher internally questioned whether the self-contained structure affected the nurturing of creativity. Did all second-grade students have the opportunities to flex their creative muscle? Ms. Naron provided evidence of creative opportunities in her science lessons, but were all students at Compass given the same chances? Would the entire second grade, at Compass Elementary, benefit by transferring

to different classrooms for different subjects? Would the benefits depend on whether the teacher was passionate about the subject matter?

Curricular Evidence

Research in the curricular dimension shows the quality of the curriculum's content, goals, and activities (Eisner, 2017). Through the curriculum, students learn what the teacher deems important by the amount of time allotted to particular subjects and grading practices. Compass Elementary and Ocean Elementary were expected to adhere to state standards, and both schools had access to *Studies Weekly*, a social studies curriculum designed for second grade. In addition, teachers at both schools relied on *Brain Pop,* an "animated educational website for kids" (Brainpop, n.d.), and other video resources during the observations. The schools' similarities ended with the curricular content and goals, which were creative in nature, based on evidence from the Louisiana Department of Education website (Teacher Support Toolbox Library, n.d.).

At Compass Elementary, all of the participants followed the same lesson plans, but lesson implementation was not identical. The teachers at Ocean Elementary did not regularly write lesson plans for science or social studies. In fact, at the initial meeting, before the interviews and observations were scheduled, Ms. Abe mentioned that she and the other teachers at Ocean Elementary did not have time set aside for science and social studies lessons, "we just kind of add it into reading when we can. Sometimes I pull down a map and point to a place we are reading about," she explained. The other teachers nodded in agreement but stated that they had butterflies coming in and that they would happily "do a lesson" for the researcher to observe.

Compass Elementary teachers followed a science curriculum from the Teachers' Curriculum Institute (n.d), with lesson plans created by Ms. Naron. The curriculum included student textbooks, access to videos, and other resources, such as testing material. All of the teachers at Compass Elementary utilized the videos and resources during the observations. The researcher found evidence of opportunities to nurture creativity throughout the curriculum and during the observed lessons.

The science standards called for students to connect ideas across disciplines through divergent thinking and the science performance expectations were remarkably creative in nature. In fact, the very first standard 2-PS1-1 required students to investigate, describe, and classify objects based on visible traits. The objective verbs ranged from interpreting to investigating, classifying, planning, and explaining. Furthermore, the scaffolding tasks included opportunities

for brainstorming and for students to share ideas with the class via a self-created poem, song, or skit. However, the activities are suggestions, and one should not assume that students participate in each activity presented.

Similar to science, the Louisiana second grade social studies standards allowed for creative teaching and learning. The very first standard, 2.1.1, required students to create simple timelines. Teachers could implement an activity such as cutting and pasting a pre-made document that required little to no creativity, or the activity could allow a vast amount of freedom and expression by allowing a learner-centered approach.

Regarding the curricular dimension, the researcher drew conclusions similar to Wyse and Ferrari's (2015) findings that the written curriculum does not have the most significant impact on whether creativity is valued or nurtured in the classroom. Nurturing creativity seems to be more dependent upon teachers, than the state standards or curriculum. Teachers have the responsibility of constructing and implementing lessons that allow or encourage students to be the knowledge makers. Allowing students to experience complex processes, such as knowledge construction, can increase creativity (Lin, 2011). While there was ample evidence of creative opportunities within the curriculum, the level of nurturing creativity varied by school and teacher. Sharp (2004) also noted the critical role that teachers play in establishing a creative environment.

Evidence through Pedagogy

Eisner (2017) stated that research repeatedly shows that teachers follow identical curriculum with different methods. While the schools used similar curricula in science and social studies, the pedagogy, or practice of teaching, varied greatly among participants. Drawing on the constructs provided by Lin (2011), nurturing creativity may include teaching creatively, creative learning, and teaching for creativity. Teaching creatively involves creating interesting lessons. Creative learning refers to opportunities for students to explore, discover, and think of possibilities, while teaching to develop creativity is student-focused (Craft, 2001; Lin, 2011). Through participant interviews, the researcher revealed that all participants had an accurate concept of which activities have the potential to nurture creativity. The teacher-created artifacts and observations provided evidence of creative pedagogy taking place in the classrooms at varying levels.

The four participants, from Compass Elementary, provided substantial observable evidence of creative pedagogy. Evidence included student created habitat boxes based on student

choice, partner work to create models and illustrated diagrams, experimentation, partner discussions, and group discussion with open-ended questions. Teacher-created artifacts included artwork and original writings. Teachers also used entertaining educational videos, appropriate think time, imagination, and divergent thinking, making multiple connections to real-life and other subjects.

Observable evidence of creative pedagogy at Ocean Elementary was more varied among participants. All participants used videos during instruction and each student had a butterfly journal, where they wrote sentences and illustrated their observations. Additionally, Ms. Alan's class provided evidence of multiple divergent connections and use of imagination. Ms. Abe allowed ample think time, and humor, asked students to make divergent connections, and instructed the students to pause for a moment of mindfulness.

Activities observed in Ms. Iris's class were more teacher-centered. Au (2007, 2011) reported that teachers often employ teacher-centered methods, which rarely foster creativity, in order to cover the abundant test content (Au, 2007, 2011). One activity, which had potential to nurture creativity, was the creation of a butterfly life cycle using dried pasta. During the lesson, the teacher passed out the precise amount of each type of pasta needed, instructed the students with specific direction to draw leaves, explained how to glue the pasta, and demonstrated where to label the stages. Students were not given time to explore or make decisions about the design or use of materials.

Similarly, Ms. Parks' activity for the butterfly life cycle required students to color, cut, and paste the pre-printed stages of the life cycle. The students appeared to enjoy both projects and did not reflect the boredom that Anyon (1981) described in schools of lower socio-economic status. However, the researcher considered the findings that emerged from Anyon's (1980, 1981) studies, supporting the idea that teachers from the lower socioeconomic schools did not consider creativity and innovation as necessary for work tasks, and value placed on correct answers, rather than thought processes. Whether intentional or unintentional, evidence seemed to support the existence of differences in pedagogy, especially in relation to nurturing creativity, between the two sites.

Creativity and the Evaluative Dimension

The fifth dimension of educational connoisseurship relates to evaluation practices. Eisner (2017) noted several questions related to the evaluative dimension that stretch beyond test validity

and reliability: "Does testing influence what is taught? Does it shape teaching methods?... Does it create a status hierarchy among subjects that children study?" (p. 80).

During Ms. Iris's observation of the butterfly life cycle lesson, she mentioned to the students that the project was "for a grade, so put in your best work." Assigning a grade to the teacher-directed project, in Ms. Iris's class, implied that following directions was higher on the priority list than student exploration; data also indicated that other subjects took precedence over science and social studies.

While informal evaluation was apparent in each classroom, through question and answer sessions, the only mention of formal evaluation, during the observations, came from Ms. Eunice. She reminded the class of an upcoming social studies exam and showed the standardized format on the screen to remind students of how the test was structured. During the lesson observations, data regarding creativity's place in the evaluative dimension was limited, but the interviews seemed to show support for Au's (2007) notion that high-stakes tests significantly alter the curriculum by narrowing content through the elimination of untested subjects and material.

Barriers

Niu and Steinberg (2003) suggested that the educational system's focus on standards and high-stakes testing leaves little room for imagination and invention. Data from the interviews also indicated that teachers viewed high-stakes testing as a significant barrier to nurturing creativity. For example, Ms. Parks' statement, "Everything is all about teaching to the state test," was corroborated by Ms. Sawyer's sentiments that "School scores are driven by scores. Principal's job security is driven by scores, and teacher job security is dependent on scores."

The literature review indicated high-stakes testing, time-constraints, compartmentalization, and primarily associating creativity with the arts, as potential barriers to fostering creativity in the general education setting (Beghetto, 2015; Cho et al., 2017, Craft, 2005; Eisner, 2002; Muirhead, 2011). The initial interview produced a list of potential barriers to nurturing creativity, as perceived by all eight participants, including time constraints and limited resources. Barriers of student misbehavior and high-stakes testing were also agreed upon, by seven of the eight participants.

Data also showed that while three teachers mentioned the belief that creativity is not just associated with art, two of the three agreed that poor fine motor skills were a possible barrier to fostering creativity. Three additional participants, perceived poor fine motor skills as a barrier, which seems to support the notion of primarily associating creativity with the arts. Sharp (2004)

noted that many teachers and parents continue to associate creativity with the arts, reducing the place of creativity in other subject areas. Five out of the eight participants indicated the belief that fine motor skills were directly related to creative ability.

Participants from both the Title-I and non-Title-I schools agreed that limited resources were an issue; therefore, the concept was not an indication of difference among socioeconomic status. Other barriers, which were outliers from the initial interview, including shyness, developmental delays, child's previous experience or home, and disabilities were addressed in the second interview, but responses were mixed.

The lack of agreement possibly supports the argument that progress toward creative pedagogy requires educational leaders to develop an understanding of creativity and the creative process (Cho et al., 2017). Sali and Akyol (2015) found the most significant obstacle for fostering creativity in the elementary classroom was the teachers' lack of training in cultivating creativity. The following discussion provides brief summary of the findings from the case study.

Discussion

Evidence from the observations showed varied levels of nurturing creativity among participants. Although all of the teachers in the study claimed to value creativity and stated that creativity was an important component of their classroom, they did not all practice pedagogy that specifically nurtured creativity. The findings were similar to other studies where teachers believed creativity to be highly valuable (Andiliou & Murphy, 2010, Kampylis, 2010), but discrepancies were reported between teachers' assertions and actual classroom practices (Cho et al., 2017).

The differences in creativity pedagogy may be explained by more than one potential reason. First, the participants' lack of knowledge or teacher training in creative pedagogy, reflected in the hodge-podge mix of definitions with no reference to creative habits or the creative process, mixed responses regarding activities to nurture creativity, and disagreement about potential barriers. Teachers must overcome multiple obstacles in promoting creativity, including lack of knowledge and misconceptions about creativity and the creative process (Robinson, 2017; Ucus, 2018). Seven out of eight participants stated that professional development on creativity was needed in the elementary setting. Additionally, differences in schools' socioeconomic status may affect the level that creativity is nurtured. Anyon (1980, 1981) and Schacter et al. (2006) described a lack of creativity in schools of lower socio-economic status and seemed to indicate that a school's socioeconomic status may influence whether teachers intentionally nurture creativity in the

classroom. Evidence seemed to support the existence of differences in pedagogy, especially in relation to nurturing creativity, between the two sites.

Barriers to nurturing creativity within the classroom were similar to the findings of the literature review: high-stakes testing, time-constraints, compartmentalization, and primarily associating creativity with the arts (Beghetto, 2015; Cho et al., 2017, Craft, 2005; Eisner, 2002; Muirhead, 2011). All of these potential barriers to fostering creativity were supported by evidence from the study. Additionally, the teachers agreed that a lack of resources presented a barrier to nurturing creativity.

Implications and Recommendations

Findings of the study showed teachers' limited understanding of creativity and the creative process. While the teachers in the study were enthusiastic about creativity and the role of creativity in their classrooms, the evidence did not reflect the same level of implementation in all classrooms. In order for practicing and future educators to implement strategies that nurture creativity in their content areas, the researcher recommends professional development and teacher training on creativity, with a prioritized focus on the creative process. Building teacher knowledge about the creative process, with strategies for action, would support creative pedagogy in all subjects.

Evidence supported the fact that curriculum did not dictate whether creativity was nurtured in the classrooms. While the researcher found an abundance of opportunities to nurture creativity in the science and social studies curriculum, each teacher covered the content differently, even in the school where the lesson plans were shared among teachers. Evidence also supported the statement that the teacher plays a significant role in whether creativity is nurtured; therefore, the researcher suggests an intentional focus on developing teacher understanding of creativity, the creative process, and creative pedagogy.

Future studies covering a variety of populations, different grade levels, locations, and subject matter, would allow a broader picture of teacher perceptions and practices regarding creativity in elementary schools. Similar studies in upper grade levels may reveal substantial data on the barrier of high-stakes testing. Additionally, evaluation of other stakeholders, students, parents, and administration may provide more insight into the differences regarding school's socioeconomic status.

Merriam and Tisdale (2016) pointed out that "One of the assumptions underlying qualitative research is that reality is holistic, multi-dimensional, and ever-changing" (p. 246). Due

to this fact, the researcher purposefully focused on the dimensions of school ecology and triangulated data from multiple sources. In addition, the researcher ensured "adequate engagement in data collection," and data saturation (Merriam & Tisdale, 2016, p. 246). The use of the observation protocol and reflections, in lieu of a fieldwork journal, allowed the researcher to focus on the dimensions of school ecology and assess bias, further ensuring validity.

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