

Strategies for Enhancing Creativity in the Classroom

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Appendix A

Abstract

The purpose of this study was to investigate the strategies of enhancing creativity in the classroom and teaching strategies. The study involved 9 participants in total; all participants were teachers. The research relied on random sampling to select the study participants. The researcher used the observation sheets to gather data from the study participants. The study employed qualitative data analysis methods to synthesize the data collected from the study respondents. The collected data from respondents during the study were analyzed in tabular form, while tables were also be used to draw patterns on responses provided. Data was coded and specific themes were identified, which include classroom participation, active strategies, inhibitors of creativity, internet creativity and creativity tools. The researcher found that this study highlights that collaboration can be a very useful strategy to enhance creativity in the classroom. The researcher noted that asking open-ended and random questions keep the learners engaged in the class activities.

The researcher also observed that the Internet proved to be a great avenue for the young children, because a range of learning opportunities available on the internet can increase children's problem-solving abilities, and critical thinking skills, which enhances creativity. The strategies discussed in this research are all proven to be effective in making early childhood education a better and improved experience. the researcher is planning to continue with further research and explore more about the field of enhancing creativity in the classroom.

Keywords

Creativity in the Classroom, Teaching Strategies, Enhancing Creativity, Early Childhood Education, Classroom Participation, Collaborative Learning, Active Learning Strategies, Internet-Based Learning.

Introduction

Overview

Creativity is an act of using imaginative or existing ideas to develop new concepts and make them a reality. Notably, creativity is based on an individual's ability to perceive things in new ways, to identify hidden patterns, to connect unrelated concepts, and to establish solutions to problems at hand (Burnard & White, 2008). Learning and teaching are some fundamental activities that occur in the classrooms. Observably, changes in the contemporary learning environment have raised the stakes and call for enhanced creativity within classrooms. Teachers and tutors are striving to impose a high level of creativity in their teaching methodologies to boost learning outcomes of their students.

Reasons for Studying the Topic

Creativity in the classroom is worth studying because it is an area that has one of the most significant gaps in the learning environment today. The majority of teachers have not understood that creativity requires attitudes and skills that can help children to tolerate ambiguity, to redefine problems, to find new solutions, to take sensible risks and to follow an ingrained passion in guiding learners (Cremin, 2009). Therefore, a study of the topic will enrich the teachers with knowledge of how to impart creativity in classroom activities. Secondly, the topic enhances understanding of the strategies of creativity as required for the students' development in school. Notably, creativity enhances classwork directly by raising motivation, promoting joy and deepening understanding within a classroom environment (Burnard & White, 2008). Furthermore, the topic is vital because the successful establishment of creativity in early childhood learning predicts future classroom success in subsequent levels such as colleges. Finally, this topic is worth studying because it will

not only contribute to the available literature but will also fill the creativity gap that has existed in classroom teaching for a long time.

History

The development of creativity in the classroom has been one of the most significant educational goals since the beginning of this century. Creativity researchers have already made significant efforts in establishing relevant theories and numerous suggestions for academia to improve creativity in the classroom. According to Cremin (2009), classroom activities that focus on enhancing creativity have failed to achieve the expected success rate. For example, PISA 2012, In study about the ability of students to creatively solve problems, demonstrated that only one among five learners could solve a problem through the conventional method hence implying a lack of creative thinking (Campbell & Jane, 2010). Over time, development in technology has changed the learning dynamics that calling for a shift in strategies of enhancing creativity in the classroom.

My Passion

I have a tremendous interest in early childhood education. I believe that the proper foundation for young learners is adequate preparation for a better future. Learners who graduate from initial childhood level of schooling with an appropriate foundation find it easy to survive in the subsequent levels of learning. Therefore, I am committed to ensuring that I equip my learners with the necessary skills and knowledge to survive through the entire education system and succeed in the long run. I also have a passion for using internet technology to enhance creativity. Learning

new things through the internet and sharing the same with my students to enhance creativity is equally an essential part of child development.

Secondly, I have an immense passion for the cognitive and physical development of children. Observably, I prefer to spend quality time with children by engaging them in various activities, including games and storytelling. The company of children not only offers a platform to teach them but also creates an avenue for me to learn from them. For instance, the company of children makes it easy for me to understand things that show creativity in the young ones. As such, it becomes easy to impart the necessary knowledge and skills on them in the classroom.

Purpose and Research Questions

The overall purpose of this study is to investigate the strategies of enhancing creativity in the classrooms. My study will seek to respond to the following questions in an attempt to fulfill the purpose:

- i. What are the main strategies of enhancing creativity in Early Childhood Education classroom from 3 to 5 years?**
- ii. How can the internet enhance creativity in Early Childhood Education classroom from 3 to 5 years?**
- iii. What are the major challenges facing enhancement of creativity skills within Early Childhood Education classroom?**

Review of the Literature

This review forms an essential part of the study by outlining how previous research has influenced the current study. The purpose of the current study is to identify the various strategies for enhancing creativity in the classrooms. The review is thematically organized with all related information from different researchers getting classified under the same theme. Technically, the review helps in identifying information from studies and literature that relate to strategies of achieving creativity in the classrooms while at the same time highlighting areas that require further investigations.

This review focuses on empirical texts that relate to education, developed within the contexts of philosophy, sociology, psychology, and other learning policies and practices. The review also focuses on creativity from a generic point of view instead of assessing domains of the subject. Although a lot of studies have been done on issues regarding creativity, a little effort has been put in identification of the various strategies through which creativity could be enhanced within the classrooms.

The Concept of Creativity

Cremin (2009) describes creativity in his research on creative teachers and creative teaching as the tendency to reorganize or generate alternatives, ideas, or possibilities that could be used to solve problems, communicate with others, and entertain people. It is an essential trait in humanity and has a considerable role in the development of society. The researcher outlined that people can be creative if they view things in new ways or from different perspectives. People should generate new ideas and possibilities through creativity. The measures of testing creativity examine both

alternatives generated by individuals and the uniqueness of the alternatives (Cremin, 2009). Similarly, Benlamri (2013) holds supportive views on the concept of creativity by outlining that the concept involves the ability of humans to stay unique and develop several options for achieving the desired outcome. According to Benlamri (2013), people are motivated to be creative by three main factors. First, individuals are motivated to be creative by the need for varied, novel, and complex stimulation (Benlamri, 2013). Secondly, people become creative because of the constant need to communicate their values and ideas. Finally, the researcher identifies that creativity is motivated by the need to solve problems in society (Benlamri, 2013).

DeHaan (2009) outlines that creativity occurs when people come up with unique ideas to solve challenging problems in society. The researcher denotes that creative persons tend to have an exceptional knowledge about things, work on them for a specific duration, identify novel solutions, seek advice, and take risks. Moreover, ideas and theories about creativity originate from far back in history. On the other hand, Benlamri (2013), in her assessment on creative teaching for improvement of students' improvements in speaking, described that creativity is an essential form of intelligence that guides people in various disciplines to discover new things. Regardless of being an art, creativity exists almost in every aspect of life.

Ronksley-Pavia (2014) defines creativity through originality and usefulness. Under originality, the researcher identifies that an idea can only be considered creative if it is characterized by low probability and high uniqueness (Ronksley-Pavia, 2014). The definition matches Albert Einstein's theory of relativity. Also, creative ideas prove their usefulness by being valuable and practical (Ronksley-Pavia, 2014). On the other hand, Beghetto (2010) describes that

the element of surprise mostly characterize creativity. According to Beghetto (2010), an idea is considered creative if it is not only surprising but also non-obvious. Notably, usefulness, originality, and surprise are quantitative aspects of describing the concept of creativity. It would, therefore, be essential to identify the qualitative elements of creativity in the current study.

Barbot, Besançon and Lubart (2011) acknowledged the benefits of creativity in classrooms and identified that education professionals primarily recognize such benefits. Enhancement of creativity within the classrooms could facilitate benefits such as the development of imaginative skills among children and an increase in chances of significant discoveries and economic growth in the foreseeable future. Moreover, creativity functions as a vital element of personal wellness. It develops curiosity, communication abilities, and openness within the classroom setup (Barbot, Besançon & Lubart, 2011). Similarly, Ronksley-Pavia (2014) supported the argument by outlining the theories as well as variables that are involved in the potentials of creativity. This research builds on the findings of previous studies to emphasize the significance of creativity within the classrooms and outline strategies for enhancing it.

Favorable Properties of Creative Thinking

Barbot, Besançon & Lubart (2011) summarized various findings on the favorable properties of creative thinking in individual pupils. Notably, the summary identifies that creative pupils can easily break boundaries and develop broad categories of situations around them. Moreover, creative children are not only independent but also build complex cognitive structures while at the same time, generating ideas rapidly. On the other hand, DeHaan (2009) argued that particular

patterns in young individuals cause creativity. Factors like autonomy, flexibility, tolerance, positive self-image, responsibility, and tolerance are strongly connected to creativity (DeHaan, 2009). The researcher also identified that independence is associated with creativity.

Specifically, creative individuals demonstrate a high sense of autonomy, less desire to impress others, and low self-control. Moreover, openness is an essential element of creativity since it displays an individual's interest in novelty (DeHaan, 2009). Open people tend to go beyond the conventional because they are fascinated by unexpected situations and intrigued to solve issues that arise around them.

Barbot, Besançon & I Lubart (2011) drew the readers' attention to the notion that creative personalities are inspirational. Similarly, responsibility and sensitivity are integral parts of creativity among individuals in contemporary society. Creative personalities have various male and stereotypical female traits. However, the existing evidence on gender disparities in creativity is equivocal. On the contrary, Cremin (2009) concluded in his study that girls appear to be advantaged when it comes to creativity as opposed to boys. The conclusion followed a series of several findings that depicted girls to express more creative traits than boys despite their existence in the same environment. However, this research would not major on individual properties of creativity but rather on collective creativity within a classroom setup.

Multivariate Approach of Creativity

Kirsch, Lubart & Houssemand (2016) described the multivariate approach of creativity by outlining the major components that define it. The researchers identified cognitive factors, conative factors, emotional factors, and environmental factors as the main components of creativity. Various issues can be considered under the cognitive factor of a multivariate approach. For instance, divergent thinking through the ability to establish several solutions to a situation is a significant ability in creativity. Similarly, convergent thinking is vital as it enables consideration of the demands of the environment during the production of unique and original solutions for the issues around an individual (Kirsch, Lubart & Houssemand, 2016). Similarly, Cremin (2009) held that convergent think enhances the ability of an individual to appropriately interact with various ideas, assess them, and come up with a combined effective solution to a particular problem. Also, Beghetto (2010) specified that the other abilities involved in creativity are an examination of alternatives, selection of relevant ideas, and flexibility of the mind in viewing issues from different angles.

Kirsch, Lubart & Houssemand (2016) discussed that conative factors such as cognitive styles, personality traits, and motivation have a direct impact on the creativity of humans. Cremin (2009) offered a list of common individual traits concerned with creativity like openness, independence, tolerance, and creativity. Moreover, DeHaan (2009) establishes various traits on creative adolescence like the rejection of conformity, attraction to novelty, need for independence, and taste for risk-taking as well as perseverance in obstacles. The researcher also argued that creativity is guided by intrinsic motivation. Therefore, children who are extrinsically motivated tend to be conformists.

DeHaan (2009) appreciated that emotional factors affect individual creativity. Kirsch, Lubart & Houssemand (2016) supported the claim by demonstrating that several feelings such as self-confidence, fascination, relief, frustration, excitement as well as satisfaction have a vital role in shaping an individual's creativity. The researcher reiterated that emotional intensity, nature of the task, or individual's emotional traits modulate the effect of emotions on creativity (Kirsch, Lubart & Houssemand, 2016). An individual's level of creativity is developed by the extent to which the individual demonstrates such emotional traits as outlined above.

Moreover, Kirsch, Lubart & Houssemand (2016) held that environmental impacts are vital in developing creativity. Technically, the practice of creativity is more straightforward when circumstances are favorable. The school environments offer learners with creativity development frame through allowing them to share ideas, ask questions, and to engage in evaluative as well as critical thinking. The researchers also identified some of the practices that contribute to the development of creativity in the school environment, including fieldwork, flexibility in the use of time and space, respectful relations between the learners and instructors together with non-prescriptive planning (Kirsch, Lubart & Houssemand, 2016). This current study emphasizes the connection between the abilities of learners and strategies that help enhance creativity within their classrooms.

Potential of Creativity in Children

Creative potential implies the ability of an individual to develop novel ideas. It considers motivation, cognitive capacity, environment, and personality of an individual. Arguably, the

development of potential creative changes over time and varies based on the task and domains in play. Beghetto (2010) suggested four primary levels of creativity, which defined a person's creative productions like the Big C and Pro C, which means the eminent creative individual and an expert, respectively. People who are considered to fall within the category of little-c are merely considered creative among their peers while those under mini-c use their creativity to learn (Beghetto, 2010). Notably, most children fall within the category of little-c and mini-c where issues such as reduction of stress, meaningful learning, and better engagement in learning are often achieved.

From an ecological perspective, Lubart, Zenasni & Barbot (2013) noted that the main issue concerning creativity within the classroom is not the performance of students but rather the ability to understand the meaning of creativity and how it can be applied in meaningful ways. The researchers also defined the teaching of creativity as the process by which teachers make learning enjoyable through the use of creative approaches.

Critical Thinking and Creativity in the Classroom

Critical thinking and creativity in the classroom are some of the competencies that have gained concerned in the previous studies, especially they are useful in the development of information and communication technologies within the schools. Furthermore, the competencies are perceived to be vital because they help students to discover their problems and analyze them properly before coming up with a solution to address the situations. Also, the classroom

environment requires learners to select information from various sources and utilize them usefully to solve environmental problems.

Beghetto & Kaufman (2014) defined critical thinking as the psychological and philosophical way through which individuals imagine solutions to their problems. The psychological perception of the researcher focused mainly on the cognitive processes that are involved in the process of critical thinking. On the other hand, the philosophical aspects were concerned with the critical arguments of an individual. Barbot, Besançon & Lubart (2011) supported this definition by adding that cognitive perspectives involve different processes that make up the process of critical thinking, and they can be monitored in an education system. The authors also reiterated that the classroom instructional and mental exercises could be organized according to their difficulty within the classroom context, ranging from the low order mental operation to the high order mental operation. Students must have the ability to analyze information by comparing and organizing, gathering, and evaluating, as well as the creation of judgments that are logical on every piece of information they received.

Ronksley-Pavia (2014) described various ways through which teachers can develop the creativity of their pupils. For instance, the researcher outlined that instructors should allow the learners to make their judgments and examine their creative products through the provision of time for self-evaluation. The logic is founded within the notion that the learners have more time to formulating, elaborating, and adjusting their ideas to be more autonomous, a quality that is highly regarded in creativity development. Through autonomy, the learners can construct ideas of things they want as they remain tolerant of ambiguity. Similarly, creativity can be developed by allowing

learners to ask questions within the classrooms. The teachers should then guide the learners to explore potential solutions to the questions as individuals or in groups of their classmates as they still a collaboration, flexibility, and self-evaluation skills in the learners. (DeHaan, 2009). contributed to the ways of enhancing creativity in the classroom by arguing that mental flexibility is an essential asset in the current century and as a vital aspect of creative thinking. In creative convergent thinking, the evaluation of different ideas and selection of the best alternative requires critical thinking (DeHaan, 2009). Also, Cremin (2009) defined critical thinking as a skill that needs to be highlighted in the education setting. The researcher argued that learners need to be trained on better use of critical capabilities in the actual problem scenarios to help them develop into adaptable individuals to environmental changes.

Benlamri (2013) highlighted the connection between creative people and critical thinking. The scholar noted that critical thinking in the lower stages of education promotes the development of open minds. He also described critical thinkers to be individuals who are open-minded, understanding, and flexible in nature and character. Moreover, Beghetto & Kaufman (2014) presented various methods for assessing creativity. They noted that some of the strategies for helping teachers to enhance creativity within the classroom involved exploring ideas, questioning issues, development of several alternatives, and critical reflection on actions, ideas, and outcomes. The researchers defined critical skills as ways of solving current problems through evaluation, verification, and choices of right answers to specific tasks and reasoned objections of other alternatives. Similarly, Lubart, Zenasni & Barbot (2013) recommended various techniques for the development of creativity within the classrooms. The recommendations called for teachers to

create a link between the concepts taught, guide learners to reflect on possibilities and solutions as well as exploring and critically thinking over original ideas.

Therefore, by considering the studies above, the current research argues that creativity and critical thinking are not only connected but also vital within the classroom environment. Based on the literature, the current study holds that the development of one of the elements can be a foundation for the development of the other. As such, using one of the elements can be used as a strategy to develop the other in the classroom setup. The study guides teachers into taking note of how the elements are interrelated and ways through which they can be used to promote general creativity within the classroom environment.

Promotion of Creativity through Collaboration

Collaboration implies the action of working with other people to produce the desired outcome. It plays a vital role in the enhancement of classroom creativity in the contemporary world. The element of collaboration is considered because it helps in promoting general appreciation by learners and assisting them in establishing various solutions to new problems. It also facilitates the expression of divergent opinions and motivates individuals to engage in tasks. Regardless of the citations made previously on the significance of collaboration in the development of creativity, very few studies have attempted to connect it to the competency of creativity.

Ahmadi & Besançon (2017) outlined some of the merits of cooperative work like a deep understanding of tasks, development of interpersonal skills as well as improvement of critical

thinking skills. Similarly, Glăveanu, Branco & Neves-Pereira (2016) mentioned in their research that collaborative learning increases cognitive abilities like learning abilities. It also leads to better understanding and performance of tasks. According to Ahmadi & Besançon (2017), creativity helps in the development of emotional and social skills through collaboration. The researchers reviewed practices that enhance creative potential within the classroom. They noted that effective communication between learners leads to the production of new ideas and the establishment of solutions to problems. Teachers enable the possibility of students to work together and motivate them to assist one another in order to develop creativity.

Inhibitors to Creativity

While it is vital to assess the strategies for enhancing creativity in the classroom, it is necessary that potential factors that inhibit creativity be identified. Lassig (2012) identified some of the ways through creativity can be inhibited during his research on the creation of creativity in the classroom. The researcher outlined that pressure to stop imagination limits the ability of learners to think critically and come up with practical solutions to problems at hand. Secondly, peer conformity and peer pressure could hold learners from freely expressing themselves in the classroom hence limiting their creative development. Teachers can also be an inhibiting factor in the development of creativity, especially when they insist that things must be done their way without giving any room for flexibility. Students who learn under such circumstances have no options for applied different ideas to solve the same problem. As such, they get confined in the same line of thought and miss the urge to think critically and examine alternatives before selecting the best one.

Beghetto & Kaufman (2014) also provided further information on factors that inhibit creativity in classrooms. The researchers noted that unwavering desire for traditional practices has a high chance of hindering creativity. Undue stress on assigned readings as well as written work in classrooms also prevents students from exploring new ideas and information from other sources. As such, the learners remain fixed in the same lines of thoughts and ways of solving problems. Lack of platforms and opportunities for learners to pursue concerns of personal interest is equally a limiting factor to creativity within the classroom. Notably, it can be conceived from this literature that the enhancement of creativity within the classroom has a lot to do with the relationship between the teacher and students. Moreover, conditions in society and within the learning environment contribute massively to the development of creativity. This current study offers strategies for enhancing creativity in the classrooms by considering the inhibitors. As such, the strategies outlined have internal frameworks for overcoming the inhibitors to ensure that creativity enhancement in classrooms is achieved.

The Role of Teachers in Enhancing Creativity

Teachers play a crucial role in the enhancement of classroom creativity. The teacher's beliefs about creativity and the ability of students have a direct effect on the development of creativity of their learners. The teachers affect the development of creative potential as well as children's attitude towards learning. Regardless of the role played by teachers and the various benefits associated with creative teaching, creativity has not been sufficiently integrated into classrooms. Henriksen & Mishra (2013) performed research on learning from creative teachers. The researchers gathered that even though the school curriculum mentions creative teaching, most schools are not enhancing creative practices in their learning environments. Moreover, the researchers highlighted that

teachers lack a clear understanding of how to define creativity or introduce it in the classrooms, regardless of recognizing its significance in learning.

Summarily, the literature reviewed in this section offers empirical studies that relate to creativity and the development of creativity in the classroom. The literature helps in shaping the current research by outline the various approaches that directly affect the current issue under study. The literature relates various variables involved in the development of creativity in learners within the school environment and the classrooms. Therefore, the current research can use the variables to connect the classroom situation with creativity competencies in the contemporary learning environment. The current study benefits from the literature review by drawing ideas on how educators can encourage learners to explore creativity competencies. Moreover, it outlines how teachers can use the insights offered in the review to promote creativity within the learning environment. The knowledge of inhibitors to creativity enhances caution during the implementation of strategies for promoting creativity in the classroom in order to achieve success in the process.

Methodology

The study focuses on strategies for enhancing creativity in the classrooms. This section offers the research methodology by explaining how research activities were achieved during the study. The section outlines the study participants and setting, methods of data collection as well as tools of collecting data. The section also identifies the data analysis approaches together with the ethical considerations during the study.

Participants and Setting

The research was done on teachers of 3 to 5-year-old children in Bombeck Family Learning Centre at the address of Dayton of OH. The study involved 9 participants in total; all participants were teachers. The study focused on teachers from two urban schools and it was performed within one week. The timeframe enabled the researcher to gather sufficient information from the participants. Only one teacher was engaged from rural schools. Both urban and rural schools were involved in the study because the researcher seeks to enhance the reliability of the findings. Again, teachers were involved in the study because of their direct involvement in classroom activities. As such, the participants had a direct effect on ways of enhancing creativity in the classrooms.

The research relied on random sampling to select the study participants. In random sampling, every individual from the target group is selected by chance (Phellas, Bloch & Seale, 2011). As such, all members have the same probability of getting selected. The researcher provided all individuals with a population then utilize a table of random numbers to select the ones who participated in the study. This approach was used because it created room for calculating sampling

error and reduces selection bias. Secondly, the approach was preferred because it is straight forward and easy to understand.

Observation

To achieve the study objectives, the study required an observation protocol that would be used by the researcher to reliably characterize how creativity could be enhanced in the STEM classrooms. A critical demand for the protocol was that the STEM observers would make their observations within 2 hours since it was unrealistic to get more than two hours. The observation protocols selected for the study emphasized on the use of open-ended structured methods (Benlamri, 2013). Notably, the structure required the observer to attend classes, make notes, and record issues that contributed directly to the enhancement of creativity in the classrooms (Benlamri, 2013). Finally, the STEM characterized the overall creativity teaching methods, provided feedback to teachers about creativity levels in their classrooms, and identified the various efforts that teachers put in place to boost creativity within their classrooms.

Data Collection Tools

The researcher collected data from three classes, namely: Explorer, Juet and Voyager. Each of the three classes has three female teachers, thus making a total of 9 teachers who were observed during the study. At the Explorer room, teachers were being engaged between 7:30am and 6:00pm. At the Voyagers room, teachers were engaged between 7:30 am and 6:00 am. The study focused on traditional learning strategy and creative learning strategy. The teachers were given insights on observation areas on Tuesday, 3/17/2020 at 8:30 AM. On Tuesday March 3rd 2020, data was

collected from Explorer from 9-8, Juet 10-9, and Voyager 11-10. On March 10th 2020, data collection activities were done at Explorer from 10-9, Juet 10-11 and Voyager 11-12. On Wednesday 12th 2020, the activities were performed at Explorer from 8-9, Juet 9-10, and Voyager 10-11.

The researcher used qualitative data collection tools to respond to the research questions. Qualitative data collection tools are instruments used to collect non-numerical data from the study respondents (Phellas, Bloch & Seale, 2011). Mainly, the researcher used observation tools to gather data from the study participants. As such, the researcher personally conducted observation exercise and recorded the data. The observation sheets were used in this study because it was simple to manage and analyze (Phellas, Bloch & Seale, 2011). Moreover, the approach allowed the researcher to record data in the best way he understood the behaviors of the respondents during the observation exercise.

The observation as a data collection tool to answer the research questions played a significant role in the achievement of the study objectives. Observation is a qualitative tool through which the researcher can gather data by seeing, hearing, and recording activities around the research setting (Phellas, Bloch & Seale, 2011). The observation focused on strategies for enhancing creativity in the classroom at the family learning center. It assessed the traditional learning and creative learning strategies in early childhood education between the age of 3 and 5 years in the family learning center. The researcher observed the behavior of 20 students during the study. The researcher used notebooks and tape recorders to record observations that were made in classrooms during the research exercise. Specific attention was paid to the behaviours of teachers

with regard to traditional and creative learning strategies. For instance, the study observed if the teachers use group learning and laptops during their lessons. The researcher employed the observation tool because of its ability to improve the precision results of the study. The tool also enhances the collection of accurate data since it mainly focuses on monitoring and recording of human behavior as it is (Phellas, Bloch & Seale, 2011). Also, the researcher used the observation approach to respond to the research questions because the tool is less demanding hence reducing its level of biasness. The first observation was performed on March 10th from 9:30 am to 12:30 pm. The second observation exercise was done on March 12th from 8:30 am to 11:30 am.

Data Analysis

The study employed qualitative data analysis methods to synthesize the data collected from the study respondents. Qualitative analysis methods were used to enhance consistency since the data collection exercise also involved qualitative methods. The collected data from respondents during the study were analyzed in tabular form. The findings were presented in a table format for contrasting and comparison. The tables were provided a comparison and contrast between the responses provided by the study participants. The tables were also be used to draw patterns on responses provided. The tabular analysis method was used because of its simplicity and flexibility (Smith & Firth, 2011). Notably, readers found tabulated analysis easy to understand.

Also, the researcher performed theming and coding of the data collected using observation sheets. Themes and codes were developed by comparing the predicted theoretical patterns with the recorded empirical patterns. During this analysis, the underlying assumption was that humans

make sense of their surroundings by comparing and contrasting what they externally observe to the mental models they have (Smith & Firth, 2011). Explicitly, the researcher coded the data into sub-headings, categories, and themes. Notes were then written to respond to questions that emerge from the codes; the researcher then developed matrices to contrast and compare the cases in the collected data. Finally, a storyline was developed to connect the themes from the data with the themes from existing literature concerning research questions.

Ethics

Overall, the researcher ensured that the study conforms to various ethical considerations. First, the researcher began by writing letters to the director of the center, teachers, and sent messages to parents to inform them of the impending study. The letter to the director of the center was equally served as a request to use the centers for research purposes. Secondly, the anonymity of the respondents was enhanced during the study (Arifin, 2018). As such, the respondents were not required to reveal their personal information during the study. Moreover, the researcher did not take pictures of the participants in a bid to protect their identities. Respondents were informed that all information collected from them would be strictly used for research purposes. Therefore, they had no reason to worry about the possibilities of information being used for unintended reasons. Moreover, the researcher promised to avail the details of the research to the respondents upon request after completion of the entire process.

Additionally, data collected was triangulated to minimize biases. Notably, triangulation enabled the researcher to combine both individual and group study options to minimize bias situations such as peer pressure among study participants (Aluwihare-Samaranayake, 2012). Supervisors of the exercise only shared the data amongst themselves during the study. Moreover, the research materials and information were safely stored in the college library and personal computers. The stored information was to be protected by passwords to prevent unauthorized persons from access (Arifin, 2018). Hard copies were also stored in lockable cabinets to enhance maximum security. As such, respondents were assured that their contribution would not be misused.

Results

The study focused on the strategies of enhancing creativity in the classrooms. In this section, I intend to code the information gathered from the study in order to come up with strategies that promote creativity in the classroom. I intend to achieve valid coding by highlighting related information in color and assigning a short and succinct theme to them. The coding process will bring together information that is related to the same codes and themes. Furthermore, the analysis of information provided under the coded will be grounded in the initial data set. Coding qualitative research would assist in reducing the amount of data presented, organizing the data into a meaningful set, and create searching aids and analysis. Moreover, I intend to use codes and themes to make the data understandable and easily interpretable to readers.

Themes that were identified for this study include classroom participation, active strategies, inhibitors of creativity, internet creativity and creativity tools. I selected these themes because they were founded around the interactions among participants in the study. Moreover, I selected the themes because they summarized the bulky information gathered from the study respondents on the various strategies of enhancing creativity in the classroom. As such, the themes would make significant issues that would cover the information gathered from data collection. The process correlates to Cope's article because it enhanced the creation of a distinction between the descriptive codes and thematic frameworks that define the study at hand (2016).

Classroom Participation

The theme of classroom participation was selected based on the related vocabulary of student ‘engagement’ in the classroom. I chose the coded because it summarized classroom activities such as assignments, experiences, classwork, observations, ideas, and interpretation. The coded that relate to classroom participation appeared 26 times in the observation sheet. For example, from my observation, I saw the teacher in the Art Table said to a child, do you want to share your friends your idea and discussion about it.

Table 1
Learning strategies and the behaviors that the teachers exhibited during the teaching sessions.

Learning strategy	Observations	Classroom	Percentage
		observation frequency	of total observations
Making things	Teacher provides things such as blocks for the students to make things they like, students involved are free to build whatever they want to build.	15	14%
Maintaining interest	Teacher keeps students interested by enabling students to play with toys that keep them interested in learning activity.	6	6%
Group interaction	Teacher initiates group discussion where students discuss topic of interest enabling constructive group discussion.	4	4%

Drawing pictures	Teacher provides materials for the students to draw pictures which enables students to creatively think and create art pieces as per their liking.	11	11%
Idea mapping	Teacher provides students with materials for note taking or outlining ideas on paper. Students can connect several ideas to one another and learn by idea mapping.	6	6%
Art talk/ art interview	Teacher initiates talk about some artifact enabling students to get involved in group discussion and learn about art pieces.	10	10%
Build-a-phrase	Teacher asks students to build a phrase on everyday things, which enable students to develop their language writing skills in a group setting.	18	17%
Pass the picture	Teacher provides students with pictures related to curricular topic, students observe and analyze the picture for 30 seconds and pass on the picture to other students.	15	14%
Playing music	Teacher provides students with musical instruments and teach them how to play music instruments and how they sound enabling students to learn about music.	5	5%

Curate a collection	Teacher provides students with several art pieces and encourage them to build an art collection based on a prompt.	14	13%
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Inhibitors of creativity

The theme of inhibitors of creativity was selected because it sufficiently covered all the data collected on challenges faced when fostering creativity. The primary vocabulary under consideration was “challenges.” Technically, issues associated with challenges facing creativity enhancement were recorded 11 times in the observation sheet. From my observation, I saw the teacher in the Dramatic corner Said to the Child, do like to use the keyboard, to write faster. The theme relates to Cope’s article by considering interacting actors that prevent success enhancement of creativity skills in the classroom (Cope, 2016).

Table 2

Survey results on the emphasis that should be placed on creativity in the 3-5 age classroom

	Teacher 1 (Explorer)	Teacher 2 (Jets)	Teacher 3 (Explorer)	Teacher 4 (Voyagers)
Response on emphasis	Linking to a child’s experiences	Ideas, observations, and personal interpretation of the world	Ideas and classwork	Focusing on creativity at all levels.

Active Strategies

The theme of active strategies was selected because it pointed out the various behavioral behaviors in the students' classes. The main vocabulary under consideration was 'fostering.' The theme covered vital information concerning random and open-ended questions, learning materials, and exploration. From my observation, I saw the teacher in the Storytime asked the Children who have a twin brother or sister? The concepts of active strategies were recorded fourteen times in the observation sheet. The theme relates to Cope's article through consideration of the various notable actions that were taken during observation (Cope, 2016).

Table 3
Survey results on the strategies for fostering creativity at the 3-5 age classroom

Strategy for fostering creativity	Number of teachers who use the strategy	Proportion of total participants
Asking random and open-ended questions.	3	30%
Providing open-ended learning materials	2	20%
Provision of versatile materials for the children to explore	2	20%
Availing arts all day for the students	2	20%
Students making their own creations	1	10%
Total	10	1000%

Figure 1

Major Challenges in Fostering Creativity in Classrooms



Creativity Tools

Finally, I selected the theme of creativity tools because it covered the various methods through which creativity could be instilled in learners within the classroom. The main vocabulary under consideration was 'materials.' Creativity tools appeared 16 times in the observation sheet. From my observation, I saw the teacher in the circle time Said to the Children that you can use the keyboard, computers, manila papers. Also, another teacher said to the Child that you can use an iPad to draw an object at home.

Table 4

Responses on the tools that teachers use in fostering creativity in the 3-5 age classroom

	Teacher 1 (Explorer)	Teacher 2 (Jets)	Teacher 3 (Explorer)	Teacher 4 (Voyagers)
Response on tools used in	Coloring sheets, open-ended	No response	natural materials, adding new materials throughout	Books, iPad, and CD players

fostering	questions, open-	the room, asking several
creativity	ended materials	questions to trigger
		thoughts

Discussion

In my research on the strategies of enhancing creativity in the classroom, I used the theme and coded method to organize the information. I used these themes and codes to identify the strategies to enhance creativity in the classroom. This is qualitative research, coding the information will organize the data in meaningful sets and reduce the amount of data presented. In this paper, I will compare the results of research using themes and codes with the literature review of strategies for enhancing creativity in the classroom.

Similarities

In my research, I used the theme of class participation based on the vocabulary of student “engagement” in the classroom. This code included classroom activities such as assignments, experiences, class-work, observations, ideas, and interpretation. In the literature review, some strategies are given that can help enhance creativity in the classroom. In the review, it is mentioned that collaboration and working with other people can enhance creativity in the classroom. According to (Ahmadi & Besançon, 2017), collaboration can create a deep understanding of the activities, tasks, and can also improve critical thinking. Through collaboration, every student gets to learn about the different opinions and ideas of other people in the group. This strategy can be very helpful in enhancing creativity. In my research results under the theme class participation, I found out that 4% of the participants used this as a strategy to enhance creativity in the classroom. For example, in my observation, I saw the teacher in the art table said to a child do you want to share with your friends your ideas and discussions about it. The teacher asked the child to share

the ideas to make the child interact and collaborate with other students. This would allow the child to learn about other students and their ideas.

Collaboration between learners leads to the establishment of new ideas and new and different solutions to the problems. Collaborative creativity helps in the development of social and emotional skills. Collaborating learning can improve the cognitive and learning skills of the students (Glăveanu, Branco, & Neves-Pereira, 2016). Teachers encourage the students to engage in collaborative learning to improve the learning process and to enhance creativity.

To enhance creativity in the classroom we need to know about the inhibitors to creativity. The literature review mentioned various factors that inhibit creativity in the classroom. These factors include pressure to stop imagining, and peer pressure. According to (Lassig, 2012), the pressure to stop imagination limits the critical thinking of the learner and their ability to come up with practical solutions to the problems. In my research, I created the theme of inhibitors of creativity to outline and identify the factors that inhibit creativity. In my observation, the issues challenging the creativity enhancement appeared 11 times on the sheet.

In the literature, it is identified that teachers can also act as inhibitors of creativity. Some teachers insist the learners perform a task in a specific way without giving the learners any room for flexibility. This limits the creative thinking of the learners and they do not get any opportunity to come up with their innovative ideas. Similarly, in my research, I found this as a factor to inhibit

creativity in the classroom. For example, I saw the teacher in the dramatic corner said to the child, do like to use the keyboard, to write faster. The teacher might have said this to help the student to finish the task on time, but it stopped the student from coming up with an idea of himself to write faster. When a teacher defines a specific way to perform a task to the learners it acts as an inhibitor to creativity. Creativity is enhanced by giving the learners a chance to come up with new solutions to their problems. This act boosts the critical thinking of the learners and helps in cognitive development. Teacher-student relationship plays a vital role in the learning process. If the teacher is focused on only passing the information that the teacher has without knowing and understanding the capabilities of the student it acts as an inhibitor of creativity. In contrast, if the teacher approaches the student with an open-ended learning process it can act as a strategy to enhance creativity in the classroom. (DeHaan, 2009).

One of the many strategies of enhancing creativity in the classroom mentioned in the literature review is by asking random and open-ended questions. Asking questions is an active strategy because it activates the mind of learners and keeps them engaged in the classroom. When teachers ask random questions from the learners it gives the learners a chance to think about different and new things. This improves the learner's ability of critical thinking which automatically enhances the creativity of the learner. When students are encouraged to think critically at an early age it promotes cognitive development. Critical thinking enhances the mental flexibility of the mind. Mental flexibility is an important factor in creative thinking (DeHaan, 2009). Asking questions can improve and enhance the critical thinking process.

In my research, I made a theme of active strategies and the code of this theme was “fostering”. The theme covered information concerning random and open-ended questions, learning materials, and exploration. In my survey results, it showed that 30% of the participants ask random and open-ended questions as a strategy to enhance creativity in the classroom. The teachers in the observation process asked random questions from the learners to keep them engaged and to encourage critical thinking. For example, from my observation, I saw the teacher in the story-time asked the children who have a twin brother or sister? When the teacher asked this question, it started a discussion about twins and encouraged the students to think critically. The students got to think about what twins are. The attempts of active strategies appeared fourteen times in the observation sheet. Other active strategies noted in the survey were, providing open-ended learning materials, availing arts, and students making their creations. Among all these active strategies, asking random and open-ended questions was preferred by most teachers in the survey. Asking questions to keep the learners engaged in classroom activities. It helps in improving critical thinking and cognitive development of the brain which automatically enhances creativity. (Lassig, 2012).

Differences

In my research, I found that the lack of cooperation from the learners is one of the major challenges in fostering creativity in the classroom. It covers 50% of that chart of the challenges in fostering creativity. On the contrary, according to the literature review, the performance of the students is not the issue of fostering creativity in the classroom. The issue concerning creativity in the classroom is not the performance of the learners but their inability to understand the meaning of creativity and its application (Barbot, Besancon, & Lubart, 2011). When the learners do not know

and understand the meaning of creativity, they can't use their creative skills to solve problems and create new ideas. My research identifies that the lack of cooperation from the learners is a major issue in fostering creativity in the classroom. In contrast, the literature review states that learners' performance is not the issue. The instructor should first teach the learners the real meaning of creativity.

Another difference in the literature review and my research results is that the literature review did not discuss the creative tools to enhance creativity in the classroom. Whereas in my research I created the theme of creative tools and it appeared 16 times in the observation sheet. The code of this theme was materials. According to my research teachers provide creative tools to the learners can act in enhancing creativity in the classroom. For example, from my observation, I saw the teacher in the circle time said to the children that you can use the keyboard, computers, and manila papers. Another teacher said to a child that you can use an iPad to draw an object at home. The tools that the teachers provide learners include coloring sheets, natural materials, toys, iPads, and CD players, etc. Teachers that participated in my research use these tools to enhance creativity in the classroom. The literature review focused more on the thinking process and the ways that can enhance and develop the thinking capabilities of the learners. The review discussed more the assignments, questions, and problem solving as the strategies of enhancing creativity and left the tools out of the discussion. (Glăveanu, Branco, & Neves-Pereira, 2016).

Conclusion

After comparing and contrasting, I found out the effectiveness of the strategies in my research to enhance creativity in the classroom. According to my research and the literature, collaboration can be a very useful strategy to enhance creativity in the classroom. By interacting with other children in the classroom the students can find new approaches and ideas for solving problems. The literature review stated asking open-ended and random questions as an effective strategy to improve the critical thinking and creativity of the learners. In my research, I found the same thing through observation and the survey. Asking open-ended and random questions keep the learners engaged in the class activities. It also encourages them to think more critically. Teachers should avoid telling the students to perform tasks in a defined and specific way. It acts as an inhibitor to creativity. The thing that the literature review did not discuss is the use of creative tools which I found to be an effective strategy in my research. Providing creative tools to the students can be very effective in enhancing creativity in the classroom.

I plan to continue my research on strategies to enhance creativity in the classroom. This research will be helpful in my Ph.D. program, the Early Childhood Education, and the same field of research to start in fall 2020. This research covers the strategies of enhancing creativity in the children and I will continue this research because it will help me in understanding the strategies of teaching children at an early age. From this research, I learned about effective ways to improve teaching strategies. I have also learned about the things that a teacher should avoid in the classroom. Early childhood education creates the base of an individual's whole future. The strategies discussed in this research are all proven to be effective in making early childhood

education a better and improved experience. I am planning to continue my research and explore more about the field of enhancing creativity in the classroom.

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Appendix A

Checklist of specific Teacher Behaviors for Observation

	Behaviors	Yes	No	No. of Students
1	Learning Strategy: Making Things Teacher provides things such as blocks for the students to make things they like, students involved are free to build whatever they want to build.			
2	Learning Strategy: Maintaining Interest Teacher keeps students interested by enabling students to play with toys that keep them interested in learning activity.			
3	Learning Strategy: Group Interaction Teacher initiates group discussion where students discuss topic of interest enabling constructive group discussion.			
4	Learning Strategy: Drawing Pictures Teacher provides materials for the students to draw pictures which enables students to creatively think and create art pieces as per their liking.			
5	Learning Strategy: Idea Mapping Teacher provides students with materials for note taking or outlining ideas on paper. Students can connect several ideas to one another and learn by idea mapping.			
6	Learning Strategy: Art Talk / Art Interview Teacher initiates talk about some artifact enabling students to get involved in group discussion and learn about art pieces.			
7	Learning Strategy: Build-A-Phrase Teacher asks students to build a phrase on everyday things, which enable students to develop their language writing skills in a group setting.			
8	Learning Strategy: Pass the Picture Teacher provides students with pictures related to curricular topic, students observe and analyze the picture for 30 seconds and pass on the picture to other students.			
9	Learning Strategy: Playing Music Teacher provides students with musical instruments and teach them how to play music instruments and how they sound enabling students to learn about music.			
10	Learning Strategy: Curate a Collection Teacher provides students with several art pieces and encourage them to build an art collection based on a prompt.			

Fast-Track CLASSROOM RESEARCH IRB Application
FOR APPROVAL OF EXEMPT HUMAN SUBJECTS RESEARCH (Category b-1)

This Checklist may only be used by researchers at the University of Dayton who want to conduct **research in established or commonly accepted educational settings, involving only normal educational practices (regular or special education instructional strategies, effectiveness of instructional techniques, curricula, classroom management methods)**. This application form may NOT be used if the research is sponsored with federal funds, or if compensation is involved. This form can only be submitted to the IRB by a University of Dayton faculty member or full-time staff member. **If you are a student, you must ask your faculty mentor to approve the checklist and submit it, along with the Parent Information Sheet and Off-Site Approval to IRB@udayton.edu. Visit: <http://www.udayton.edu/research/compliance/irb/>**

1. RESEARCHER INFORMATION

Researcher name, department, and UD e-mail: Arwa M Alkhamis, department: Teacher Education department, UD e-mail: alkhamisa3@udayton.edu

Faculty Sponsor Name (required for student projects), department and e-mail: [Professor Kathy Hoover](mailto:Professor%20Kathy%20Hoover)/ Teacher Education department/ Khoover2@udayton.edu/850-712-8700

2. PROJECT TITLE: Strategies for Fostering and Supporting Creativity in the 3-5 Age Classroom.

3. CHECKLIST:

- ☒ No federal funds will be used in this research. (You may not use this form if federal funds are used.)
- ☒ No compensation will be offered to participants. (You may not use this form if compensation is used.)
- ☒ All research activities will occur within a classroom setting.
- ☒ All research activities will be limited to widely accepted educational practices.
- ☒ The researcher has permission to conduct their research at the data collection site (e.g. school principal).
LOCATION(S): Bombeck Family Learning Center (The researcher must provide documentation of this permission.)
- ☒ All interactions with minors will be limited to normal classroom activities.
- ☒ All data will be secured and kept private using lock-and-key (paper data) or password-protected computer files (digital data) on a computer with limited access.
- ☒ Access to the research data will be protected and restricted to the researcher and/or faculty member.
- ☒ This type of research does not require the researcher to document informed consent. In lieu, the researcher will use the **University-approved Parental Information Sheet** template (see the IRB web site). This sheet must be provided to the parents of children prior to conducting research.
- ☒ This IRB submission includes the following *required* documents: (1) **Application Form**, (2) **Parental Information Sheet**, (3) **Off-Site Approval** (e-mail from a school principal is acceptable).
- ☒ For student applications, these materials must be submitted by a faculty member.

IF ANY OF THE BOXES ABOVE ARE NOT CHECKED, you may not use the CLASSROOM RESEARCH FORM. Please visit the IRB web site for the regular application for exemption or non-exempt research application.

4. FACULTY/STAFF MEMBER CERTIFICATION OF CLASSROOM RESEARCH APPLICATION: This form may only be submitted by a **full-time faculty or staff member** of the University of Dayton. This form must be submitted, along with the **Parental Information Sheet and Off-site approval** for this study, by e-mail to IRB@udayton.edu prior to any data collection. By submitting this form via e-mail to the IRB, the faculty/staff member is certifying that the above information has been reviewed and is true to the best of your knowledge. **The person signing/submitting this form accepts responsibility for the protection of the human subjects recruited to this research study, and for the ethical conduct of this research.**

Parent Notification Letter – Classroom Research

Dear Parent,

My name is Arwa M Alkhamis, a student in the Teacher Education Department at the University of Dayton, and I am conducting a research study in your student's class. I am interested in studying teacher fostering/supporting of student creativity in the 3-5 age classroom.

- *When you will be in the class: March 1-30, 2020, 8a-5p*
- *What you will do in the class: teacher observation of creativity practices (during class time) and teacher survey (outside of class time)*
- *Explain how the child's data and confidentiality will be secured: all data collected will only be viewed by myself and my university supervisor and stored in a password protected computer and/or secured under lock and key*

I will not record your student's name or any other materials that will identify you/your student. You/your student will not do anything outside of his/her normal classroom activities and there is no risk to you/your student. Your student's participation will not affect his/her grade.

Please contact the following investigators with any questions or concerns:

Researcher/UD student name, department, and UD e-mail: [Arwa M. Alkhamis/ Teacher Education Department/ Early Childhood Education: alkhamisa3@udayton.edu](#)

Faculty Sponsor Name (required for student projects), department and e-mail: [Professor Kathy Hoover/ Teacher Education Department/ Khoover2@udayton.edu](#)/850-712-8700

If you feel you or your child have been treated unfairly, or you have questions regarding your child's rights as a research participant, you may contact Candise Powell, J.D., University of Dayton IRB Chair, at IRB@udayton.edu; Phone: 937.229.3878.

Teacher Interview Questions for Fostering Creativity in the 3-5 Age Classroom

Teacher Name:

Number of children in the classroom:

Classroom Name:

How many boys? ____ girls? ____

Teacher Classroom Role:

Teacher's Education Level:

Years of Experience in the Field:

1. What emphasis do you feel should be placed on creativity in the 3-5 age classroom?
2. What strategies do you use for fostering creativity at the 3-5 age classroom?
3. What are the major challenges you face in fostering creativity skills in the 3-5 age classroom?
4. How does the internet enhance creativity the 3-5 age classroom?
5. What tools do you use to foster creativity in the 3-5 age classroom?