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ABSTRACT

Researchers, educators and policymakers promote play-based pedagogy because of its appropriateness in developing children's potential. Play is considered a lens through which children view their natural world and propose creative ways of dealing with their daily challenges. However, play as a teaching pedagogy remains inadequate due to insufficient understanding and practical use of various play-based pedagogies. Despite the importance placed on play-based pedagogy, children struggle to transform their creative abilities into functional real-world outcomes. The researcher, therefore, aims to investigate "play-based pedagogy and creativity for early-grade and preschool learners". Specifically, The research intended to find out; (a) how play-based pedagogy can be used to enhance the creativity of preschool and early-grade learners. (b) how a professional development programme assists preschool and early-grade teachers in enhancing learners' creativity. The study was conducted in Owerri Education Zone, Imo State, Nigeria. The study adopted a qualitative approach with a Participatory Action Research (PAR) design. The research participants were nine and purposively sampled from teachers of young learners aged five to eight years. The tool used for data collection was a Semi-structured interview and observational schedule. Findings from the study indicate that teachers have a poor understanding of diverse twenty-first-century play-based pedagogy used to enhance children's creativity. Furthermore, the teachers' professional development programme positively impacted learners' creativity. In conclusion, the study recommends teachers' professional development training on twenty-first-century play-based pedagogies to enhance learners' creative skills.

Keywords: play-based pedagogy, creative skills, preschool, early grades, professional development programme, participatory action research

INTRODUCTION

Play-based pedagogy has increasingly received approval among educators because of its inherent attributes, such as the holistic development of learners, promotion of active learning, inclusivity in learning and its developmental appropriateness. Undoubtedly, researchers, educators and policymakers promote play-based pedagogy because of its appropriateness in developing the potential of children. Despite the clamour for play-based pedagogy among childhood educators, policymakers, and researchers, teaching pedagogy remains inadequately utilised due to insufficient understanding and practicality of various play-based pedagogy available to facilitate learning (Parker, Thomsen, & Berry, 2022). This study is paramount to understanding the different pedagogies teachers can use to facilitate learners' creativity. Creativity, as used in this study, is synonymous with innovative thinking.

Psychologists and neuroscientists have strongly noted that play-based learning positively impacts the development of the child's brain (Whitebread, Basilio, Kvalja, & Verma, 2012). In their view, when children are allowed to learn through play, play becomes a mechanism for metacognitive development, self-regulatory abilities and emotional well-being (Whitebread et al., 2012). Similarly, Vygotsky (1978) maintained that the influence of play is enormous in engendering speech development, self-regulation, self-awareness and cognitive processing. In his natural experiment with children's play, Dewey connected play with scientific inquiry process (Dewey, 1910). This presupposes that play is a lens through which children view their natural world and proposes innovative ways of dealing with their daily challenges. However, despite the importance placed on play-based research and creativity, there is a struggle to achieve originality and functional real-world outcomes through children's creative abilities due to individual differences (Stevenson, Baas, & van der Maas, 2021).

Therefore, researchers must tweak the differences that hinder the realisation of optimal creativity of individuals in preschools and early grades.

Creativity cannot be approached from one dimension because it is multifaceted, and its application is possible in all fields of learning. Top among its dimensions is the creation of innovations in various fields. Being innovative is one of the twenty-first-century soft skills needed in any individual's social, professional and personal life because it allows for divergent views to proffering solutions to a problem (Khalil, Godde, & Karim, 2019). We live in a world with complex problems seeking innovative ways of solving them; hence developing and enhancing the creative minds of young learners will serve to prepare them for the future (Hassan, 2014). The importance of creativity cannot be underestimated hence its inclusion in Nigeria's preschool and early-grade curriculum (Federal Ministry of Education, 2007). However, at the lower basic education level, which includes the preschool and early grades, the curriculum focuses on developing learners' arts and crafts, entertainment, customs and traditions whilst leaving out creative or innovative thinking (Federal Ministry of Education, 2007). Enhancing creative thinking in preschool and early grades must go beyond entertainment to innovative thinking. To elevate the practice of creativity beyond entertainment, the approach to enhancing creative ideas in children must change. However, the expected change in learners remains unrealistic without capacitating teachers on practical dimensions to enhance creativity that leads to innovative thinking in learners. Therefore, the researcher considers a professional developmental programme viable to capacitate teachers on twenty-first-century teaching and learning approaches to enhancing creativity. Consequently, in this study, the researcher addresses how play-based pedagogy enhances the creativity of preschool and early-grade learners. It further seeks to find out how a professional development programme would assist preschool and early-grade teachers in enhancing the creative cognition of learners.

LITERATURE REVIEW

Creativity is said to have occurred when imaginative ideologies are processed, structured and transformed into useable and practical reality (Bloom & Dole, 2018; Goodliff, Canning, Parry & Miller, 2017). Characteristically, creativity is one's ability to view the world or phenomena from different perspectives with the intention to link the unseen patterns in the phenomena in a logical sense whilst generating a solution (Goodliff et al., 2017; Sawyer, 2014). Transforming imaginative ideas into useable practical reality involves thinking and producing.

Thinking as a process of imaginative transformation

Transforming imaginative ideas into functional reality involves thinking and processing things uniquely occupying an individual's mind, leading to a possible solution (Sawyer, 2014). Furthermore, it deals with an independent way in which ideas are analysed, and dots are connected, facts and pieces of evidence are reflected upon to deductively arrive at the best reasonable conclusion (Halpern, 2014). Accordingly, in the thinking process, standards are applied, and judgements are made according to the established personal, social, and professional rules and criteria. In doing this, the individual distinguishes, recognises differences and similarities in things or solutions and categorises them according to their ranks and order.

Developing critical thinking skills in Menominee English high school was a research conducted to explore strategies to enhance critical thinking skills among learners in the native tribal area of the United States (Hove, 2011). The study's findings indicate that English students who learnt reading responded positively to using a structured approach to teaching critical thinking skills. While this approach was considered beneficial for high school learners, it may not be the most appropriate method for preschool and early grades. Hence, in their view, Montessori (2018) and McMahan (1997) maintain that preschool and early-grade learners must be grounded in their learning experiences through the use of hands-on, real-life learning experiences. In doing this, learners are encouraged to relate invisible ideas in their minds with innovative and creative constructions. For this reason, Smith, Nerantzi, and Middleton (2014) emphasise that creativity as an aspect of learning must create an enabling environment that motivates learners to have a first-hand experience practically. Smith et al. (2014) noted that such experiences afford learners reliable, consistent and valuable knowledge in designing, interpreting, planning, and investigating any phenomenon they encounter in their environment. According to Smith et al. (2014), learning begins with carrying out a particular action and observing the effects.

Producing as a process of imaginative transformation

A person is said to be creatively unproductive when the person's ideas are unlocked or not transformed into functional reality. Robson (2014) avows that creativity incorporates identifying a problem, proffering solutions to the problem or searching for solutions through formulating hypotheses and adapting and retesting hypotheses before the final communication of results. In other words, to enhance creativity in children, they must be positioned to identify a problem and be allowed to think through ways the identified problem would lead to innovative solutions. According to Naiman (2021), creative innovation requires patients, commitment, passion, awareness of previously unknown knowledge, and focus to achieve a new life. Teachers, therefore, are adjoined

to cultivate commitment and patience in enhancing creativity in children, seeing that creativity involves bringing an imaginative idea into life for the benefit of the child and society at large (Mumford, Giorgini, Gibson, & Mecca, 2013).

Furthermore, on transforming imaginative ideas into productivity, Agboze, Onu and Ugwoke (2013) found that companies and business outlets rely more on the cognitive capacity of workers grounded in critical thinking hence the emphasis on entrepreneur education in the Nigerian schools. Their study additionally indicates that for imaginative transformation to ensue, students must be acquainted with the ability to analyse, evaluate and challenge assumptions, information and opposing viewpoints that are incongruent with their reasoning. In their study, Agboze, Onu and Ugwoke (2013) identified debate, group discussion, and solving numerical problems and puzzles as strategies for enhancing students' critical thinking skills. Based on the findings of their study, the researchers recommended that capacity-building programmes be regularly organised for lecturers to teach their students' critical thinking skills effectively.

In the end, human beings act out the thoughts in their mind; hence creative thinking is the producer of transformative functional imagination, while having control of the mind is an indicator of life's sustainability itself (Gokhale & Machina, 2018; Halpern, (2014; McPeck, 2016). Creative thinking is essential in education as it facilitates and coordinates learning outcomes. When learners begin to think creatively, cognitive perspectives and aptitudes such as proficiency in history, science and mathematical values, which are necessary for everyday life, are developed (Gokhale & Machina, 2018; Halpern, (2014; McPeck, 2016). Whereas creative thinking is not an intrinsic part of an educational system, educators are encouraged to harness learners' creative thinking abilities through systematically designed learning (Robson, 2014).

Creating opportunities that enhance creativity

Pre-school and early-grade teachers are encouraged to present learners with opportunities that allow them to exercise and explore possible solutions to problems independently (Clarence, 2018). Sometimes, when learners are confronted with challenges of relationships, physical obstructions, or understanding the modus operandi of any phenomena, some teachers and stakeholders take it for granted, not knowing that such are perfect opportunities to trigger the practicality of creativity.

In creating opportunities that enhance creativity, teachers must be purposeful in creating situations that enable learners to exercise their sense of judgement, interpretation, drawing inferences and conclusions (Gokhale & Machina, 2018; Halpern, 2014; McPeck, 2016). In other words, preschool and early-grade learners may be considered miniature researchers as it entails searching for evidence, facts and knowledge and identifying relevant sources. How can this category of learners assume this position without being frustrated and losing interest because they have short attention spans? Responding to the question, Siraj-Blatchford, (2007) recommends that children should be provided with play activities from which they can freely choose a play that appeals to them, as play enhances their sense of creativity. Furthermore, Siraj-Blatchford, (2007) noted that child-initiated play activities allow children to imagine and try out ideas and possibly produce an original piece of work.

Play-based pedagogies create opportunities that enhance creativity

Play-based pedagogies ensue when teachers adopt an approach that engages the hands (psychomotor), heart (affective), and head (cognitive) in playful dispositions when facilitating learning. As preschool and early-grade learners engage in various play activities, they display creative thinking abilities as they share play objects and spaces despite their egocentric nature (Halpern, (2014). Creating play-based pedagogical opportunities allows learners to express their creative abilities through experiments that gratify their inquisitiveness about any phenomenon within their environment (Halpern, (2014). Creativity stimulates children's creative thinking, leading to innovative ideas; therefore, enhancing creativity within the context of child play remains unarguably important, hence this study's focus.

The free-play opportunity enhances creativity

Learners must be allowed to freely explore their environment through play while their teachers ensure that their environment is free from every form of harm and threat. Free play has been advocated by Aldhafeeri, Palaiologou and Folorunsho (2016) and Chien (2017) as an avenue through which teachers can facilitate learning for children. To enhance creativity through free play, teachers should observe the play activities children choose for themselves and integrate them into the learning process. Whitebread et al. (2012) assert that play develops the cognitive schema, creative skills, language and literacy skills, numeracy skills, and emotional and physical development of young learners. Whitebread et al. (2012) affirm that learners understand and consolidate the world around them through play, which facilitates the development of their abilities for high cognitive performance. Vygotsky also noted that when young learners play with objects and their peers, emotions and language skills develop increasingly. Play supports young learners' development of metacognitive

and self-regulatory abilities (Whitebread et al., 2012). Creativity is a product of metacognitive abilities and must be developed and enhanced.

Not only is creativity enhanced during free play, children learn to accommodate each other's differences, interests, insights and backgrounds; this is a learning disposition that allows children to view the world from different perspectives. Pyle and Danniels (2007) and Thuketana and Westhof (2018) noted that play pedagogy embraces learners' strengths and needs in a naturally inclusive environment. The implication is that children's capacity is seen as they exert their energy in play (especially in free play); hence, teachers can harness this to their advantage and enhance creativity in these learners. Chen and Fleer (2016) and Fleer (2013) state that play remains one of the intrinsically motivated media through which children learn. Similarly, children construct their knowledge by engaging in voluntary activities during free play (Marginson & Dang, 2017). Therefore, teachers must view free play as an opportunity to enhance learning rather than just leisure for children.

Enhancing creativity through structured play

Structured plays are any form of play that is guided and directed by the teachers for a specific purpose, usually to achieve a learning objective. In most cases, structured play is guided by some rules leading to a desired outcome. Most Nigerian educators play down the use of group work play-based pedagogy as a structured play when facilitating learning (Author, 2020). Such acts of indifference from teachers and society made the United Nations High Commission for Human Rights place great importance on children's right to play (Shamseldin, 2012). Learners understand themselves when they work in play-folds of small groups as it avails them the opportunity to creatively view problems from different perspectives (Nugra & Abraham, 2018). In this study, the researcher employed the think-pair-share, jigsaw and buzz group play-based pedagogy as structured play to enhance creativity in learners. These structured forms of play are considered viable for enhancing young learners' creative abilities.

Think-pair-share as a structured play-based pedagogy

Although this pedagogical technique is famous for developing and enhancing critical thinking skills, the researcher considers it helpful in enhancing children's creativity. The think-pair-share technique involves creating a puzzle-like play activity wherein learners are presented with a learning task to accomplish quickly. After that, learners are paired to peer review their work and add to their knowledge. Thompson (2017) states that think-pair-share, play-based pedagogy, and free play are among the developmentally appropriate instructional techniques teachers can use to meet learners' needs. Using think-pair-share enables learners to find creative ways to solve problems quickly.

Jigsaw structured play-based pedagogy

Originally, Jigsaw was designed by Aronson and his graduate learners to diffuse inter-group tension and promote self-esteem among students in Austin, Texas, United States (Aronson & Patnoe, 2011; Drouet, Saugy, Millet & Lentillon, 2018). This pedagogy entails learners working in playgroups and taking up roles that make them reporters at a particular time. The teacher is to group learners in clusters of 4-5; each cluster chooses a name for their group. This group cluster is known as the home group. The home groups are expected to be made up of at least four learners, and each learner is assigned a number, for example, number 1,2,3,4, and so are other home group members. After this first formation, the members of each of the home groups will then break into the expert group.

In the expert group, all home group members bearing the numbers 1,2,3 and 4 will group according to their number identity; thus, the expert groups are made up of monotonous number identity (meaning all members with home group number 1 will cluster together in the expert group, same goes for other members with numbers 2,3, and 4). Learners in the expert group take charge of their learning as the teacher guides them. This implies that the teachers will present four different topics for discussion and deliberation for each expert group and allow each expert group member to write down points being discussed about the learning content presented to them within the time allocated for that learning.

When the time allocated for learning elapses in the expert group, each member returns to their home group. As they return, time is allotted for each member present at the expert group to teach other home group members what he/she learnt at the expert group. This technique enhances the child's creativity as the child develops his/her method to relay the knowledge gained at the expert group to his/her friends at the home group.

Buzz group play-based pedagogy

The buzz group is a play pedagogy that uses small discussion groups of 3-6 learners to generate ideas creatively and solve problems (Balslev et al., 2015; Clarence, 2018). Donald Philips from Michigan State University was the first to use the buzz group technique. He applied it by dividing his class into clusters of six learners and asked them to discuss specific problems within six minutes, which was found to be very effective.

Professional development programmes to enhance creativity using play-based pedagogy



Figure 1: Professional development programme/workshops for the study (Ekeh, 2020)

Professional development programmes (PDP) have proved to be an effective way to update and upskill in-service teachers' knowledge. Many pieces of research have indicated teachers' significant gain after undertaking PDPs. For example, Ayodele and Govender (2018) researched to determine whether cluster systems improved classroom instructions of Nigerian in-service teachers using professional development programmes. Findings indicate that the "clusters system promoted significant improvement in classroom instructional delivery of the teachers. It was also established that teachers could learn and adopt a practical approach to teaching the subject in the peculiar context of their schools. Teachers were able to be mentored and assisted on difficult challenges in the teaching and learning the subject" (Ayodele & Govender, 2018: p. 1). Similarly, Akpan and Ita (2015) investigated teacher professional development and the quality of Universal Basic Education (UBE) in Lagos State of Nigeria to discover that teacher participation in the induction programme, ICT training, and seminars/workshops was significant. They further recommended that the government and relevant agencies provide more opportunities for UBE teachers to attend professional development programmes (Akpan & Ita 2015).

However, despite the evident gains of a professional development programme for teachers and the laudable recommendations researchers have made, there are glaring gaps in the literature that show that teachers of young children are edged out in professional development programmes. Hence, in the absence of professional development programmes, teachers are encouraged to experiment new ways to enhance their instructional techniques and build confidence to improve learner performance (Moolenaar, Slegers, & Daly, 2012). Most researchers have argued for teachers' collaboration as a form of professional development from their more knowledgeable colleagues to improve their classroom performance and effectiveness (Jackson & Bruegmann, 2009). The lack of evidence in literature indicates that teachers of young children are inadequately capacitated with various educational pedagogical needs. Hence, the researcher is motivated to bridge this gap by conducting a professional development programme on enhancing creativity for teachers of children aged 5-8 on various twenty-first-century play-based pedagogies.

Knowledge is not static; it evolves. For this reason, professional development programmes remain a veritable resource that integrates and links in-service teachers' previous knowledge to every new body of knowledge. For teacher effectiveness, training and re-training of teachers are essentially symbolic of teachers' competencies (Stosich, 2016; Thoonen, Slegers, Oort, & Peetsma, 2012; Yashkina, Lieberman, & Campbell, 2017). In their research, Yashkina et al. (2017) and Stosich (2016) noted that teachers' attitudes, aptitude, knowledge and understanding could be enhanced by several activities during professional development programmes. In support of their views, Ronfeldt, Farmer, McQueen, and Grissom (2015) maintain that teachers can grow their professional capacity and create improved learning environments that stimulate and motivates learners if allowed to enhance their skills.

Objectives of the study

The central focus of the study is to enhance creativity in preschool and early-grade learners through play-based pedagogy. Hence, the study specifically seeks to find out; (a) how play-based pedagogy can be used to enhance the creativity of preschool and early-grade learners. (b) how a professional development programme assists preschool and early-grade teachers in enhancing learners' creativity.

METHODS

The research method employed for the study was qualitative, and the research design was participatory action research (PAR) design. The purposively sampled participants were nine public preschool and early-grade teachers. The nine teacher participants that were purposively selected were considered adequate for the study population because qualitative research seeks to utilise a smaller number of participants that will give an in-depth understanding of the research phenomenon (Merriam, & Grenier, 2019; Queirós, Faria, & Almeida, 2017). The teachers were certified bachelor's degree teachers with at least five years of teaching experience. Three public schools used for the study were conveniently sampled due to their proximity and accessibility to the researcher. The research site was situated in the Owerri education zone of Imo State, Nigeria. Semi-structured interviews and observation schedules were the instruments used for data collection, and the data collection lasted for three months. Teacher participants observed their learners while the researcher collated and analysed their observations. Data collected were analysed using the thematic data analysis method. After that, findings and recommendations for the study were made.

Regarding ethics, teacher participants gave their consent, and the University of Pretoria also gave its ethics approval to conduct the study. For confidentiality purposes, participants' identities were concealed using pseudonyms such as T1, and T2, among others. The study's data was culled from the researcher's PhD thesis that was submitted to the University of Pretoria, South Africa.

As stated earlier, a participatory action research design was used in conducting the study. The in-service teacher participants and the researcher collaboratively conducted the study. Hence the procedure of the study is captured in figure 2. The study also served as professional development training for the in-service teachers because they were able to upskill their knowledge and use group work play-based pedagogy to enhance learners' core skills (communication, collaboration, creativity and critical thinking skills).

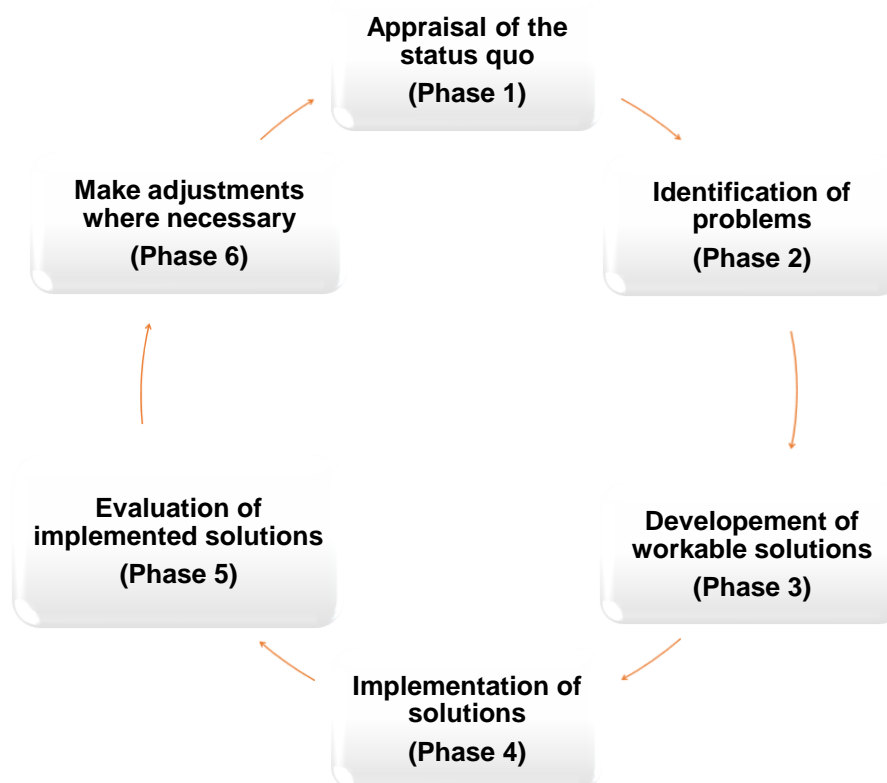


Figure 2: Participatory action research procedure (Ekeh, 2020)

To enhance creativity in this study, the researcher and teacher participants undertook the phases indicated in figure 2. While appraising the state of creativity among learners, the researcher noted that learners' creative skills were inadequately enhanced, and the appraisal responses led to the development of a workable solution.

The solution requires capacitating teachers on developmentally appropriate ways to enhance the creative skills of learners. Thereafter, teachers implemented the new skills learnt in their various classes and reconvened to evaluate learners' performance. Adjustments were to be made where necessary, and the procedure was to be repeated if challenges were encountered in the implementation process. However, the outcome of the evaluation shows that the procedures were well implemented.

As stated earlier, the play-based pedagogies used to enhance learners' creative skills through the teacher participants were the jigsaw, think-pair-share and buzz. Teachers were capacitated on using these play pedagogies to facilitate different subject contents. In this study, learning contents used were word generation and spelling in the English language, types and various means of transportation in social studies, and critical thinking in mathematics.

Think-pair-share

This is one of the creative thinking learning strategies that were used during group work play-based activities. The concept of word generation and spelling using a single word was presented to the participants to creatively think, write down and then share their thoughts with their peers. They peer-reviewed what each person was able to generate. This involved brainstorming and creating new ideas, followed by sharing or discussing results generated in the brainstorming process with either a group(s) or the entire class.

Jigsaw

A pictorial learning resource containing transportation as learning content was given to each expert group, and members of the expert group were asked to discuss the content of the learning resources. Some questions guiding their discussions were given. Each expert group member was asked to report what they learnt to their home group members.

Buzz group technique

I used the buzz group technique in this research by splitting the participants into groups of three while asking them to identify one word that fits into the four blank spaces presented in a task. This was an example of the task that was given to them: "A rich man wants _____, a poor man has _____. If you eat _____, you die, when you die, you can take _____ with you. Answer (NOTHING)". The task was meant to stimulate and enhance creative skills in learners.

Discussions of findings

In response to research objective one on how play-based pedagogy can be used to enhance the creativity of preschool and early-grade learners, teachers responded thus:

- T1 said that "play-based Pedagogy helps to retain creative skills in young children. It can retain the knowledge in children for a very long time" [helps young learners retain creative skills].
- T4 indicated that "play-based pedagogy enhance creative skills in young children because each and every one of them will like to share their own experience, thereby improving them on their knowledge and understanding" [Share their own experiences].
- T5 mentioned that "it will make learning and teaching easy, it allows the teaching to be child-centred" [it makes learning and teaching easy, it allows the teaching to be learner-centred].
- T6 maintained that "how play-based pedagogy enhances creative skill in young children are as follows: (a) by using them while teaching is the creative skill".
- T7 noted that "play-based enhance core skill on children by putting what they saw in practice after watching what a particular company of person did they now come back to perform theirs" [Making young learners to practice what they have seen].
- T8 in her response, said, "play-based pedagogy enhance skills in young children, it help them to learn faster" [helps them to learn fast].
- T9 indicated that "play-based pedagogy enhance creative skills in young children by once they have seen and do that by themselves it will be part of them" [by seeing and doing it themselves].

T2 and T3 could not respond to the question, possibly because they lacked knowledge of how play-based pedagogy can enhance creativity. However, the response of most teachers shows that they are familiar with play as a pedagogical technique to facilitate learning. Clarence (2018) mentions that preschool and early-grade teachers must present learning opportunities in a way that enables children to explore possible solutions to problems. Similarly, Gokhale and Machina (2018) and McPeck, (2016) agree that teachers must purposefully create learning situations that stimulate the sense of judgement, analysis, evaluation, interpretation, drawing inferences and conclusions. Correspondingly, Siraj-Blatchford, (2007) strongly advocate for teachers to provide learners with various play activities that appeal to them and enhance their sense of creativity. In their views, Montessori (2018) and McMahan (1997) remained resolute that preschool and early-grade learners must be grounded in their learning experiences through the use of hands-on, real-life learning experiences. Pyle and

Danniels (2007) and Thuketana and Westhof (2018) mention that play-based pedagogy embraces learners' strengths as their needs are naturally handled.

Whereas the participants have shown a poor understanding of how various play-based pedagogy can facilitate creativity, available literature argues for teachers to use play-based pedagogy to ground learners' learning experiences. Teachers, therefore, remained in the limbo of not knowing "the how" of using different play-based pedagogies while learners lost out on enhancing their creative skills. This necessitated the capacitation of teachers on twenty-first-century play-based pedagogies through a professional development programme.

Regarding research objective two, how a professional development programme assists preschool and early-grade teachers in enhancing learners' creativity? Teachers were asked about their previous experiences on play-based pedagogy, and the responses were:

T1, T2, T3, T4, T5 and T8 could not answer the question.

T6 said that "the experiences encountered while attending early childhood education workshop are: (a) Sharing of ideas (b) it makes you to know what you did not know (c) it helps me to know more on early childhood education (d) it helps on how to manage the children.", [it helped me to know more about early childhood education].

T7 mentioned that "the previous experiences I have attending early childhood education were as follows (a) I can now handle little children on matter the age without problem (b) I am now used to their methods (c) I can endear whatever they do to me (d) The children make me feel happy all the time I see them, [I can handle young learners, no matter their age, without any problem].

T9, in her response, indicated, "no workshop yet".

Evidently, that T1, T2, T3, T4, T5 and T8 could not answer the question, and the "No workshop yet" from T9 clearly shows that these teachers have not attended any professional development workshop that capacitated them in enhancing creativity using play-based pedagogies. It is obvious that the professional development programme that T6 and T7 experienced was not in the area of using group work play-based pedagogy to enhance creative skills in learners. Consolidating teachers' capacity supports them in developing more effective and creative ways of discharging their responsibilities. When the value of knowledge and skills of the teacher is rated high, the expected learning outcome becomes of high quality.

Professional development programmes integrate the knowledge that education and training avail teachers making them competent for school efficiency (Stosich, 2016; Thoonen et al., 2012; Yashkina et al., 2017). It emphasises activities that assist teachers in advancing and increasing their knowledge, attitudes, aptitude, and understanding to enable teachers to bring about the desired change. The development of in-service teachers' capacity can be seen as upgrading skills, knowledge, and attitudes in individuals and groups of teachers for whom the training is intended (Stosich, 2016; Thoonen et al., 2012; Yashkina et al., 2017).

Creativity observation schedule for play-based pedagogy

The data collected after the PDP through an observation schedule are presented below.

Observation schedule analysis of think-pair-share creative skills

In their responses, T1, T4, T5, T6, and T7 maintained that learners exhibited their creative skills as they showed interest "in painting, moulding objects", "used scissors to cut out shapes", "constructed objects with cardboards", "fixed puzzle games", "enjoyed dancing during play" and "created imaginative stories". The ability of learners to fix puzzles and create imaginative stories underpinned the diverse ways in which they link stunning hidden patterns with reality. Creative skills are characterised by an aptitude to distinguish the world in diverse ways to link with hidden patterns which are apparently unrelated but then lead to the generation of solutions (Goodliff et al., 2017; Sawyer, 2014).

In her response, T9 agreed with the rest of the participants that learners exhibited their creative skills as they showed interest "painting, moulding objects", "used scissors to cut out shapes", "constructed objects with cardboards", "fixed puzzle games" and "enjoyed dancing during play". However, she differed when she noted that her learners could not "create imaginative stories". The possible reason for this could be that her learners needed a more creative and inviting environment that would make them creatively develop their imagination. In creating imaginative stories, Smith et al. (2014) maintained that creativity is a facet of the learning process that reassures learners about their involvement in their environments. Furthermore, it offers them steady, dependable knowledge that may be used to design, construe, plan and explore in terms of hands-on learning.

Observation schedule analysis of creative skills using the jigsaw

All teachers—T1, T2, T4, T5, T6, T7 and T9—upheld that learners showed dexterity in their creative skills as they "showed interest in painting", "showed interest in moulding objects", "used scissors to cut out shapes", "constructed objects with cardboards", "fixed puzzle games", "enjoyed dancing during play" and also "created imaginative stories". Young learners can be creative using the right pedagogical approach and resources to facilitate their learning. Creativity is well thought-out to be an act of spinning new and ingenious ideas into

reality (Bloom & Dole, 2018; Goodliff et al., 2017). Montessori (2018) asserts that learners learn superlatively through hands-on, real-life practices grounded in a social context. All the teachers confirmed that using jigsaw play-based pedagogy in facilitating learning for young learners was a huge success; this sustained the position of Smith et al. (2014) and Montessori (2018).

Observation schedule analysis of creative skills using buzz group

T2, T3, T4, T5, T7 and T8 maintained that young learners exhibited handiness in their creative skills as they "showed interest in painting", "showed interest in moulding objects", "used scissors to cut out shapes", "constructed objects with cardboards", "fixed puzzle games", "enjoyed dancing during play", and "created imaginative stories". Learners' creative skills were successfully enhanced, possibly because of their passion and commitment to producing novel and valuable ideas. The procedure of conveying something new into existence involves passion and obligation to produce cognisance of what was beforehand unfamiliar and points to new life (Naiman, 2021). Mumford et al. (2013) agree that creativity comprises creating a novel, helpful product. Marginson and Dang (2017) maintain that creativity creates something innovative and valuable.

In slight contrast, T3 noted that her learners' "creating imaginative stories" performance was not encouraging. This could be because creativity is a progression that involves conveying ideas. The learners need more time to process ideas progressively before conveying them. Naiman (2021), Mumford et al. (2013), and Marginson and Dang (2017) consider creativity as the progression of conveying an imaginative idea to life that is advantageous to persons in the social order and gratifies creative minds.

RESULTS

The findings of the research indicated that teachers inadequately understood how play-based pedagogy could be used to enhance creative skills in children. It also supposes that they do not know the various play-based pedagogies that could be used to facilitate creativity for twenty-first-century learners. Furthermore, it was found that preschool and early grade teachers in the area where the research was conducted had not attended any professional development programme that capacitated them in enhancing creativity using group work play-based pedagogies. It is obvious that the professional development programme that T6 and T7 experienced was not in the area of using group work play-based pedagogy to enhance creative skills in learners

However, after conducting a professional development programme on twenty-first-century play-based pedagogies for these teachers, the researcher recorded a positive impact on learners' creativity. This is evident in the tremendous success teachers achieved in enhancing the creative skills of young learners using the think-pair-share, jigsaw and buzz group play-based pedagogy.

RECOMMENDATIONS

The researcher recommends a regular professional development programme for in-service teachers to upskill their knowledge of twenty-first-century play-based pedagogies. Teachers whose schools are close must form a support group where they cross-breed ideas on using play-based pedagogies to facilitate learning. All preschool and early-grade teachers must embrace free and structured play to enhance creativity.

CONCLUSION

The researcher set out to find how creativity in preschool and early-grade learners can be enhanced. It was found that using the play-based pedagogical approach was plausible. Participants showed significant improvement in using play-based pedagogy after being capacitated through various professional development programmes. The learning technique was engaging as participants were actively involved in the learning process, and children at the receiving end could take charge of their learning creatively. The researcher is optimistic that if the recommendations made in this study are implemented, the creative abilities of the learners will be positively enhanced. Further research on teachers' dispositions in using play-based pedagogy is suggested.

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REFERENCES

1. Agboze, M. U., Onu, F. M., & Ugwoke, E. O. (2013). Enhancement of Critical Thinking Skills of Vocational and Adult Education Students for Entrepreneurship Development in Nigeria. *Journal of Education and Practice*, 4(17), 116-124.
2. Akpan, C. P., & Ita, A. A. (2015). Teacher professional development and quality universal basic education in Lagos State, Nigeria. *Global Journal of Arts, Humanities and Social Sciences*, 3(9), 65-76.

3. Aldhafeeri, F., Palaiologou, I., & Folorunsho, A. (2016). Integration of digital technologies into play-based pedagogy in Kuwaiti early childhood education: Teachers' views, attitudes and aptitudes. *International Journal of Early Years Education*, 24(3), 342-360. Available at <https://www.tandfonline.com/doi/abs/10.1080/09669760.2016.1172477> (Accessed on 22 June 2022)
4. Aronson, E. & Patnoe, S. (2011). *Cooperation in the classroom: The jigsaw method*: Printer & Martin Limited.
5. Ayodele, A. O., & Govender, S. (2018). Using clusters system as an effective teachers' professional development for improved instructional development. *Gender and Behaviour*, 16(3), 11963-11969. Available at <https://journals.co.za/doi/abs/10.10520/EJC-1357bfcf45> (Accessed on 20 May 2022)
6. Balslev, T., Rasmussen, A. B., Skajaa, T., Nielsen, J. P., Muijtjens, A., De Grave, W. & Van Merriënboer, J. (2015). Combining bimodal presentation schemes and buzz groups improves clinical reasoning and learning at morning report. *Medical teacher*, 37(8), 759-766. Available at <https://www.tandfonline.com/doi/abs/10.3109/0142159X.2014.986445> (Accessed on 10 April 2022)
7. Bloom, L. A. & Dole, S. (2018). Creativity in Education: A Global Concern. *Global Education Review*, 5(1), 1-4. Available at <https://ger.mercy.edu/index.php/ger/article/view/467> (Accessed on 14 April 2022)
8. Chien, L. J. (2017). Developing play as pedagogy in lower primary classroom. *Teaching and Learning English in Multicultural Contexts (TLEMC)*, 1(2). Available at <https://jurnal.unsil.ac.id/index.php/tlemc/article/view/394> (Accessed on 06 May 2022)
9. Chen, F. & Flear, M. (2016). A cultural-historical reading of how play is used in families as a tool for supporting children's emotional development in everyday life. *European Early Childhood Education Research Journal*, 24(2), 305-319. Available at <https://www.tandfonline.com/doi/abs/10.1080/1350293X.2016.1143268> (Accessed on 17 April 2022)
10. Clarence, S. (2018). Towards inclusive, participatory peer tutor development in Higher Education. *Critical Studies in Teaching and Learning (CriSTaL)*, 6(1), 58-74. <https://journals.co.za/doi/abs/10.14426/cristal.v6i1.141> (Accessed on 15 July 2022)
11. Dewey, J. (1910). *How we think*. Boston: D.C. Heath & Co Publishers. Available at https://openlibrary.org/books/OL7236952M/How_we_think. (Accessed on 26 June 2022)
12. Drouet, O., Saugy, J., Millet, G. & Lentillon, V. (2018). The Jigsaw, a Promising Cooperative Learning Method in Physical Education. Paper presented at the 13th FIEP CONGRESS, Istanbul, Turkey. Available at <http://hdl.handle.net/20.500.12162/1795> (Accessed on 20 April 2022)
13. Ekeh, M. C. (2020). *Strengthening group work play-based pedagogy to enhance core skills in young learners* (Doctoral dissertation, University of Pretoria).
14. Federal Ministry of Education (2007). *9-year basic education curriculum- cultural and creative arts for primaries 1-3*. Nigerian Education Research and Development Council (NERDC) Press Yaba, Lagos
15. Flear, M. (2013). *Play in the Early Years*. Cambridge: Cambridge University Press.
16. Goodliff, G., Canning, N., Parry, J. & Miller, L. (2017). *Young Children's Play and Creativity: Multiple Voices*. Abingdon-on Thames: Taylor & Francis.
17. Gokhale, A. & Machina, K. (2018). Guided online group discussion enhances students' critical thinking skills. *International Journal on E-Learning*, 17(2), 157-173. Available at <https://www.learntechlib.org/p/173291/> (Accessed on 08 May 2022)
18. Halpern, D. F. (2014). *Critical thinking across the curriculum: A brief edition of thought & knowledge*. Routledge.
19. Hassan, Z. (2014). *The social labs revolution: A new approach to solving our most complex challenges*. Berrett-Koehler Publishers.
20. Hove, G. (2011). *Developing critical thinking skills in the high school English classroom* (Doctoral dissertation, University of Wisconsin--Stout).
21. Jackson, C. K., & Bruegmann, E. (2009). Teaching students and teaching each other: The importance of peer learning for teachers. *American Economic Journal: Applied Economics*, 1(4),

- 85-108. Available at <https://www.aeaweb.org/articles?id=10.1257/app.1.4.85> (Accessed on 20 May 2022)
22. Khalil, R., Godde, B., & Karim, A. A. (2019). The link between creativity, cognition, creative drives and underlying neural mechanisms. *Frontiers in neural circuits*, 13, 18. Available at <https://www.frontiersin.org/articles/10.3389/fncir.2019.00018/full> (Accessed on 16 April 2022)
23. Marginson, S. & Dang, T. K. A. (2017). Vygotsky's sociocultural theory in the context of globalization. *Asia Pacific Journal of Education*, 37(1), 116-129. Available at <https://www.tandfonline.com/doi/abs/10.1080/02188791.2016.1216827> (Accessed on 05 March 2022)
24. McPeck, J. E. (2016). *Critical thinking and education*. Routledge.
25. Montessori, M. (2018). *Montessori: Environment and Learning Theories for Early Years Practice*, 37.
26. Moolenaar, N. M., Slegers, P. J., & Daly, A. J. (2012). Teaming up: Linking collaboration networks, collective efficacy, and student achievement. *Teaching and teacher education*, 28(2), 251-262. Available at <https://www.sciencedirect.com/science/article/abs/pii/S0742051X11001156> (Accessed on 07 June 2022)
27. Mumford, M. D., Giorgini, V., Gibson, C. & Mecca, J. (2013). Creative thinking: Processes, strategies and knowledge. In Thomas, K., & Chan, J. (Eds.). (2013). *Handbook of research on creativity*. Edward Elgar Publishing. *Handbook of research on creativity*. Edward Elgar Publishing. Education
28. Naiman, L. (2021). *Creativity at work*. New York: Corporate Alchemist. Available at <https://www.creativityatwork.com/what-is-creativity/> (Accessed on 20 April 2022)
29. Nugra, M. & Abraham, J. (2018). Collaborative learning as a teaching and learning methodology for improving vocabulary skills in children from 7 to 10 years old at a private English academy during the school year 2017-2018. Guayaquil: ULVR, 2018. Available at <http://200.24.193.135/handle/44000/2425> (Accessed on 10 July 2022)
30. Merriam, S. B., & Grenier, R. S. (Eds.). (2019). *Qualitative research in practice: Examples for discussion and analysis*. John Wiley & Sons.
31. Parker, R., Thomsen, B. S., & Berry, A. (2022). *Learning Through Play at School: A Framework for Policy and Practice*. Available at <https://research.acer.edu.au/learningprocesses/33/> (Accessed on 04 July 2022)
32. Pyle, A., & Danniels, E. (2017). A continuum of play-based learning: The role of the teacher in play-based pedagogy and the fear of hijacking play. *Early Education and Development*, 28(3), 274-289. Available at <https://www.tandfonline.com/doi/abs/10.1080/10409289.2016.1220771> (Accessed on 05 August 2022)
33. Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. *European journal of education studies*.
34. Robson, S. (2014). The analysing children's creative thinking framework: development of an observation-led approach to identifying and analysing young children's creative thinking. *British Educational Research Journal*, 40(1), 121-134. Available at <https://doi.org/10.1002/berj.3033> (Accessed on 05 August 2022)
35. Sawyer, R. K. (2014). *Group creativity: Music, theatre, collaboration*. Psychology Press.
36. Shamseldin, L. (2012). Implementation of the United Nations Convention on the Rights of the Child 1989 in the Care and Protection of Unaccompanied Asylum-Seeking Children: Findings from Empirical Research in England, Ireland and Sweden. *The International Journal of Children's Rights*, 20(1), 90-121. Available at https://brill.com/view/journals/chil/20/1/article-p90_6.xml (Accessed on 05 August 2022)
37. Siraj-Blatchford, I. (2007). Creativity, communication and collaboration: The identification of pedagogic progression in sustained shared thinking. *Asia-Pacific Journal of Research in Early Childhood Education*, 1, 3-23. Available at <https://scholar.kyobobook.co.kr/article/detail/4050025429632> (Accessed on 07 August 2022)

38. Smith, C., Nerantzi, C., & Middleton, A. (2014). Promoting creativity in learning and teaching. UK: University Campus Suffolk, Manchester Metropolitan University, Sheffield Hallam University. Available at http://www.iced2014.se/proceedings/1120_Smith.pdf (Accessed on 12 March 2022)
39. Stevenson, C., Baas, M., & van der Maas, H. (2021). A minimal theory of creative ability. *Journal of Intelligence*, 9(1), 9. Available at <https://www.mdpi.com/2079-3200/9/1/9> (Accessed on 12 March 2022)
40. Stosich, E. L. (2016). Building teacher and school capacity to teach to ambitious standards in high-poverty schools. *Teaching and Teacher Education*, 58, 43-53. Available at <https://www.sciencedirect.com/science/article/abs/pii/S0742051X16300725> (Accessed on 16th July 2022)
41. Thompson, M. (2017). Unpacking Instructional Strategies of Early Childhood Teachers: Insights from Teachers' Perspectives. *Educational Research and Reviews*, 12(24), 1199-1207. Available at <https://ir.ucc.edu.gh/xmlui/handle/123456789/7877> (Accessed on 12 March 2022)
42. Thoonen, E. E., Slegers, P. J., Oort, F. J. & Peetsma, T. T. (2012). Building school-wide capacity for improvement: The role of leadership, school organizational conditions, and teacher factors. *School effectiveness and school improvement*, 23(4), 441-460. Available at <https://www.tandfonline.com/doi/abs/10.1080/09243453.2012.678867> (Accessed on 13 July 2022)
43. Thuketana, N. S. & Westhof, L. (2018). Group work during visual art activities to reduce indecisiveness. *South African Journal of Childhood Education*, 8(1), 1-8. Available at <https://journals.co.za/doi/abs/10.4102/sajce.V8i1.447> (Accessed on 13 July 2022)
44. Vygotsky, L. S. (1978). The Role of Play in Development. *Mind in Society: Development of Higher Psychological Processes*, eds M Cole, V. John-Steiner, and S. Scribner., E. Souberman Cambridge: Harvard University Press, 92-104. DOI: 10.2307/j.ctvjf9vz4.12.
45. Whitebread, D., Basilio, M., Kvalja, M., & Verma, M. (2012). The importance of play. University of Cambridge, Toy Industries of Europe. The importance of play. Available at https://www.waldorf-resources.org/fileadmin/files/pictures/EarlyChildhood/drdauidwhit_ebreadtheimportanceofplay.pdf (Accessed on 03 October 2022)
46. Yashkina, A., Lieberman, A. & Campbell, C., (2017). 'Teacher-led professional collaboration and systemic capacity building: Developing communities of professional learners in Ontario', in A. Harris, M. Jones & J. Huffman, 2017, *Teachers leading educational reform*, pp. 88-101, Routledge, London.