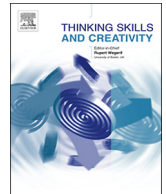




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## Thinking Skills and Creativity

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## Lin's creative pedagogy framework as a strategy for fostering creative learning in Ghanaian schools

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### ABSTRACT

Educating students who have higher order thinking skills and making sure they develop conceptual understanding of the various concepts learnt in school makes it imperative for educators, to help students develop creative learning strategies. It is for this reason, among others, that the concept of creative learning has been identified as the way to mould the 21st-century learner, and compelling evidence can be adduced from the Finnish and Singaporean models of creative learning environment. Apart from these models from these two countries, extant literature has proved that children can live more independently when they are allowed to use their creative abilities and when this is enhanced in the school setting. We, in this light, gleaned and reviewed relevant literature pertaining to fostering creative learning and its concomitant challenges. In the end, we positioned Lin's creative pedagogy as a framework that is instrumental in fostering creative learning in Ghanaian classrooms and that in spite of the challenges that may arise from implementing this framework, there are inherent strategies that are helpful in making learners creative.

### 1. Background

Creativity is one of the most important and celebrated concepts in the educational discourse around the world, generating steady interest and study within the past six decades (Csikszentmihalyi, 2012; Tanggaard, 2014). Piirto (2011) has in that direction established that creativity should no more be considered as a luxury reserved for a few gifted individuals as was in times past, but as a necessary skill, like literacy and numeracy for everyone in the 21<sup>st</sup> century globalised world which should be taught and flourished in schools to help develop students' self-esteem and confidence. As Csikszentmihalyi (2012) stated, creative children, are born at the same rate in every culture and generation although the opportunity to transform such creative potential into actuality varies from culture to culture. Thus, in different parts of the world, creative education has become pivotal to the development of countries' human resources for individual and national development. Over the years, many stakeholders and researchers in the education sector have been interrogating the different approaches used by different countries within their education sectors to develop students who are creative and abreast with the current trends in the world.

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It is therefore not surprising to note that the school curricula of many countries have been undergoing series of restructuring with the aim of having a robust and fit for purpose school curricula. The Organisation for Economic Cooperation and Development (OECD) (2013) has noted that the Finnish model of education has set creativity as a fulcrum around which their formal education revolves and thus has become an integral part of the system which has achieved prominence in recent years as their students consistently are among the highest scoring on international tests.

Recognising the need to develop creative and critical thinking skills among students as 21<sup>st</sup> century competencies, the government of Singapore created a Thinking Unit in its Ministry of Education about two decades ago. The Thinking Unit was responsible for an initiative called “Thinking School, Learning Nation” which sought to, inter alia, reduce subject content and infuse critical and creative thinking skills in their school curriculum. Leen, Hong, Kwan, and Ying (2014) noted that the setting up of the Thinking Unit has made Singapore a leading performing country in educational quality and outcomes.

The essence of developing creative thinking skills becomes even more compelling with current technological advances, particularly in artificial intelligence and nanotechnology, and students’ poor performance in solving non-routine problems in both national and international examinations. For example, analysis of students’ performance in Trends in Mathematics and Science Study (TIMSS) shows that most students perform well in non-routine questions as compared to questions testing their application, critical thinking and decision-making skills (Mullis, Martin, & Foy, 2008). It is therefore not surprising that researchers like Mullis et al. (2008) and Tambychik and Meerah (2012) have argued for the implementation of creative strategies in our classrooms in our quest for improving the teaching and learning and producing students who are nationally and internationally competent in problem-solving and decision making.

Unfortunately, Robinson (2009) has argued that schools have stifled creative thinking and abilities among learners. We are of the view that in the face of the daunting challenges one is encumbered with in a bid to foster creative learning, there is the need for a paradigm shift towards nurturing self-reliant and innovative products from our schools. We, therefore, sought to glean relevant literature to establish how Ghanaian teachers can use Lin’s (2009) creative pedagogy framework as a tool to foster creative learning in their classrooms. In doing this, we structured this paper around the study context, overview of creative learning (inhibitions to creative learning, fostering creative learning, teachers’ role in fostering creative learning) and conclusions and implications.

## 2. Study context

In trying to understand the phenomena under study, Harari (2016) poses critical questions of what would be the fate of people once artificial intelligence outperforms humans in most cognitive tasks and how humankind can manage relationships, pension funds and the whole notion of retirement when through nanotechnology and regenerative medicine the lifespan of many people gets extended. Likewise, Agbowuro, Saidu, and Jimwan (2017) indicate that within the context of the current comatose of the Nigerian economy and for that matter the entire African continent including that of Ghana, creative education should be pursued to promote people’s entrepreneurship, technological and vocational advances which should lead to social progress, improved living conditions and distribution of income.

Ghana like many other countries also faces a potential threat to its survival with the increasing rate of youth unemployment, especially unemployed graduates who are estimated to be over 200,000 (ISSER, 2016). The falling in standards of education coupled with over-reliance on successive governments to provide jobs instead of creating a robust entrepreneurial spirit, is due largely to the over dependency syndrome and the fact that products from our schools are half-baked and lack critical and creative thinking skills (Apt, 2015; Amoak, 2009) which all emanate from the inability of schools to foster creative learning. The lack of creative pedagogies in Ghanaian schools has inadvertently led to the lack of creative graduates at all levels. This has, in turn, catalyzed the unemployment rate in the country.

That is not to say the Ghanaian school syllabi is silent on creative pedagogy because they all touch on co-operative learning and activities that are supposed to make students think outside the box but in reality, there are actually very few materials to aid the practical aspects of learning these subjects. Typically, Ametordzi, Osei-Poku and Eshun (2012) establish that there is lack of textbooks, materials and teacher quality as a result, effective teaching and learning that is effective in fostering creative learning is not seen in most classrooms in Ghana.

Additionally, the content taught in schools are loaded and the concentration is on teachers to complete the syllabi before students move to the next class rather than helping students develop conceptual understanding of skills for a better foundation. This situation cuts across all levels of formal education in the context of this study, thus, making teaching more theoretical than practical, hence, impinging teachers’ ability to foster creative learning. This situation coupled with others has led to many educational reforms as well as an introduction and or substitution of subjects taught in Ghanaian schools. Two subjects that are believed to foster creative learning (Creative Arts and Basic Design and Technology (BDT)) were introduced into the primary and Junior High School syllabi respectively during the 2007 educational reforms. The Curriculum Research and Development Division –CRDD (2007, p. iii) establishes that the purpose for which the subjects were introduced was to “develop in them [students] the spirit of innovation, creativity and resourcefulness”. However, whether or not these three elements are being achieved still hangs in the balance considering the challenges raised in the preceding paragraph. The section that follows reviews literature on the creative pedagogy.

## 3. Overview of creative learning

Creativity and creative learning are broad concepts, but these concepts nonetheless should be defined in a manner relevant to practitioners and teachers (Lucas & Anderson, 2015). In simple terms creativity refers to the entire process by which useful ideas are

generated and developed (Agbowuro et al., 2017; Robinson, 2009). Agbowuro et al. (2017) further state that there is a growing acceptance that creativity is not simply about coming up with big ideas but coming up with practical solutions to everyday problems and applying them to real life situations. Consequently, creativity is all about liberating human energy for useful progress which should be the overarching motivation for educating children.

Accordingly, Richards (2007) notes that there are two main broad types of creativity, namely: eminent and everyday creativity. Eminent creativity, she explains always leads to some tangible objective result such as an invention, work of art, a scientific publication, technological patent among others. In that regard, eminent creativity has a social component as it requires an audience. Everyday creativity, on the other hand, is more personal and does not necessarily require an audience as in scheduling one's time, coping with unforeseen challenges while driving, getting dressed, conversation, writing a note and other informal ways of living productively from day to day.

Although in the context of education practice, the term creativity and creative learning are sometimes used interchangeably (Lucas & Anderson, 2015), Gomez (2007) postulates that creative learning in schools is often characterised by an environment which fosters the habits of questioning and challenging, making connections and seeing relationships, envisaging what might be, exploring ideas, keeping options open, pondering on ideas, actions and outcomes. An essential feature of creative learning is that it focuses on the potential of each individual child. As noted by Agbowuro et al. (2017), the basis of creative education is paying attention to the needs and abilities of individuals and this requires an atmosphere of freedom to teach and learn.

Generally, in a communal society like Ghana, individuality of thought and being is not usually encouraged, so liberating individual creative abilities means liberating the family, the community and ultimately the nation (Crabbe, 2017). This fundamental aspect of nation-building echoes an Akan proverb that goes like, “*Obaako naokum sono, na amansan die*,” to wit, it takes an individual to kill the elephant for the entire community to enjoy. Thus, the practice of creative learning enhances the development and wellbeing of the individual student. And the wellbeing of the individual student ultimately leads to the wellbeing of society at large, for the individual is the bedrock of every society (Crabbe, 2017).

In his classic book, *The Akan Doctrine of God*, Danquah (1968) states that

*To make the achievement of the individual social, there must be progress in Ghana, and to make the achievement of Ghana progressive, there must be individual progress. Therefore, if the end towards which Ghana is leading is the socialization of achievement, the liberation and strengthening of social tradition, then...in education lies the greatest secret to perfecting Ghana. The liberation of the individual abilities is the liberation of Ghana.” (pg. 94).*

Enforcing the eminence of creative learning, Lin (2012) argued that it is an important feature of creative pedagogy and that neglecting creative learning would most likely result in difficulties in fostering creativity among children. We, therefore, sought to investigate the fostering of creative learning in Ghanaian schools, though it is obvious extant literature is silent on the issue with regards to the context of this study. The next session opens up on some of the factors leading to the silence on creative pedagogy in the study context and other places with similar characteristics.

### 3.1. Inhibitions to creative learning

As noted in the opening sections of this work, creative learning has come of age and needs to be fostered so the modern-day student can comfortably and confidently fit into the competitive environment we find ourselves in now. In view of the inhibitions to creative learning, Nyarko, Akenten, and Abdul-Nasim, (2013) note that some scholars and educators hold the view that current educational practices fail to prepare students to be original in their thoughts, and thus prevent them from deviating from the status quo or standard practice. Robinson (2009) is of the view that such teachers conclude that the classroom is not the ideal environment to foster creativity and that in most cases the classroom rather stifles creativity. This is in direct contravention to practices in Singapore and Finland, where they have successfully incorporated creative learning in their school curriculum and have witnessed positive results in no time.

Amoak (2009), uses the metaphor of students being turned from “question marks” when they start school, full of imagination and questions but by the time they are out of the university or tertiary institution would have been turned into “full stops”, unquestioning, dogmatic and lacking problem-solving skills. This is mainly a creation of a system when teachers are vested with so much power and control to the point that students have to listen and obey the teacher as far as they are under the teachers' tutelage. Yet, the same teachers are so powerless that they have to stick to the syllabi and complete them within giving periods at the expense of fostering creative learning even when teachers are willing to do so.

It has also been noted by Sahlberg (2009) that in a lot of ways formal education has a dual and controversial role of simultaneously cultivating and killing creative potential. On the issue of truncating the students' creative potential, he notes that as students' progress from one class to the other, there is more concentration on academics. Hence, teaching and learning tend to dominate the adventures and playful environment characteristic of early childhood learning in school. In this regard, Awuah (as cited in Apt, 2015) states that Ghana's educational system, “has a very tight funnelling effect from primary to junior high school and from senior high school to university with very heavy emphasis on learning by rote which does not foster analytical or problem-solving skills” (p.398). This is corroborated by Lee (2008) in his assertion that academic performance and memorisation of knowledge are more emphasised than students' ability to explore new discoveries or solutions as they learn.

Another factor which hinders creative learning in schools is the notion that creativity in schools should be limited to subjects that are perceived to naturally invite and elicit the creative talents of children such as music, visual arts, drama and design (Sahlberg, 2009). This view of developing creative thinking and skills as the business of having more drawing and music time in schools,

according to [Sahlberg \(2009\)](#), is a very narrow view of creativity. As noted earlier, the essential aspect of defining creativity is that it is about generating original and useful ideas hence creative learning must be related to all subjects in the school curriculum. However, due to the perception that creativity is limited to the arts related subjects, many teachers, especially in other subject domains, do not think of themselves and their profession as being able to foster creative learning among their students.

Further, [Thompson and Wheeler \(2008\)](#) indicate that creative activity is nurtured and is undertaken within the context of a physical, social and cultural environment and that the home and school environment must be ‘safe’ enough for children to express their ideas and obtain support to develop their ideas ([Eshun, Osei-Poku, & de Graft-Johnson, 2013](#)). Such conducive and creative learning environment is often lacking in schools because the educational system has in itself become the problem and most teachers lack the creative skills in designing lessons that are challenging enough to help students develop the higher order thinking and creative skills needed.

This is made evident in the work of [Lin \(2012\)](#) in which he establishes that in a Confucian society, the student has very little power and that top-down approach is firmly established in the classrooms too. Though the context of this study does not subscribe to the Confucian model in principle; the practice remains the same. As noted by [Apt \(2015\)](#), the pedagogical framework of any educational system is largely influenced by a wider societal system of thought.

A cursory study of some subject syllabi used in Ghanaian schools was evident enough that the aims of the syllabi are generally good in terms of fostering creative learning, but the objectives told a different story. Examples of key verbs used in stating the objectives included explain, identify, read, measure, determine, etc. are not capable of fostering creative learning. However, others such as solve, use imagination, draw a plan, etc. were seen as perfect but the question that begs for answers remains if there are [enough] materials to aid in what the second set of objectives sought to achieve.

A ‘yes’ would mean creative learning is being fostered in Ghanaian classrooms, but the situation is different. In the Information and Communication Technology (ICT) syllabus where we expected to see a lot of activities that would help foster creative learning, we identified objectives that introduced students to the hardware components of the computer; others were the creation of folders and keyboarding skills which are formulaic rather than creative. This, we admit is not a failed attempt but we are of the view that students should be encouraged to partake in activities and projects that will help them think outside the box and be more creative in their learning and thinking.

It is also obvious that teachers in Ghanaian classrooms, who are to foster creative learning among their students have also not been exposed to the habit of teaching creatively so even when they have the will to do it, they lack the power to enforce same. As noted by [Ametordzi, Osei-Poku and Eshun \(2012\)](#), around 65% of teachers in their study used the lecture method while only 15% used the project method which rather is an incentive towards fostering creative learning. They also identified the lack of reading materials, computers and other teaching and learning materials as a disincentive for learning in the Ghanaian context. In the light of the ongoing, it is clear that there are real impediments to fostering creative learning in the context of this study, we, therefore, sought solace in [Lin’s \(2009\)](#) framework for creative pedagogy as a useful tool for fostering creative learning in Ghanaian schools.

### 3.2. Fostering creative learning in the classroom

The need for creative pedagogy and creative learning cannot be overemphasized in our current dispensation as students now are expected to be able to do more than those in earlier times did. [Crossman \(2013\)](#), in corroborating this assertion states that in view of the need for divergent and analytical thinking skills in the current global economy, creativity should be taught and fostered in schools. He further notes that teachers and all stakeholders in the education enterprise should provide children with opportunities to analyse problems using their imaginative abilities and build new models to deal with increasingly complex business, cultural and geopolitical world.

It has become obvious that fostering creativity in schools requires a pedagogical framework which is context specific and will serve as a guide and reference point for teachers and educators. Hence, we piggybacked on [Lin’s \(2009\)](#) framework for creative pedagogy which is anchored on three fundamental and interrelated elements, viz: creative teaching, teaching for creativity and creative learning. [Lin \(2009\)](#) affirms that these features of creative learning imply an interplay and inseparable relationship between the creative work of teachers and that of learners ([Lin, 2009](#)) as illustrated in [Fig. 1](#) below:

In developing a pedagogical framework which is context specific and will help promote creative teaching and learning in Ghanaian schools, it was important to examine and understand the meaning of teaching for creativity. The National Advisory Committee on Creative and Cultural Education [NACCCE Report \(1999, p. 89\)](#) defines creative teaching as, “using imaginative approaches to make learning more interesting and effective” with emphasis on teacher practices. Teaching for creativity is also defined by [Jeffrey and Craft \(2004\)](#) as having the objective of identifying young people’s creative abilities while encouraging and providing opportunities for them to develop those capacities. It is for this reason that we are of the belief that [Lin’s \(2009\)](#) model for creative pedagogy could be conceptualised into the Ghanaian system to enhance the development of creativity among students.

[Lin \(2009\)](#) juxtaposes the practice of creative pedagogy which encompasses inventive and effective teaching (by the creative teacher or facilitator) on one hand and creative learning (by the active learner) on the other hand with the typical conventional, linear method of teaching and established that even in the face of conventional teaching, the three interrelated elements of the creative pedagogy framework are useful. In that sense, teachers create a supportive atmosphere that helps develop students’ creative abilities and qualities by virtue of effective teaching and creative learning taking place concurrently.

Recognising the fact that the lack of creativity in schools is almost a universal phenomenon, [Sahlberg \(2009\)](#) proposes that policies and practices must be put in place and schools must consider three key factors or enablers of creativity. The first enabler being collaborative or cooperative learning in the classroom. Collaboration between students and facilitators is considered a

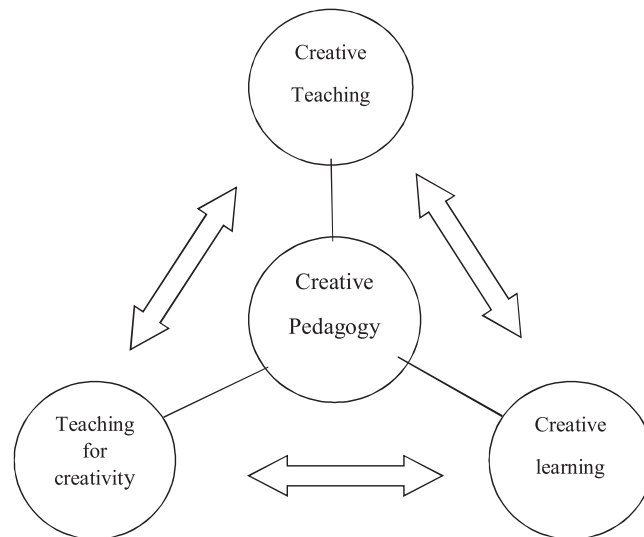


Fig. 1. The three elements of creative pedagogy.

Source: Lin (2009).

necessary pre-condition for creativity and innovation because in order to come up with an idea that is original and useful one has to interact with and receive feedback or be influenced in one or the other ways by other people (Sawyer, 2012).

Cooperative learning and collaboration in schools lead to building and sustaining trust in a continuously learning social community whereby individuals through interactions with others are enabled to generate novel ideas and useful innovations, more than they could accomplish alone (Sahlberg, 2009; Sawyer, 2012). This clearly echoes the social dimension of creativity (Richards, 2007), which is explained as the production of novel behaviours among students that will help them efficiently solve problems that occur within dyads or larger groups of people.

The second enabler, according to Sahlberg (2009) is risk-taking, an essential component of any creative venture. He believes without taking risk-taking and daring of the status quo; there would not be inventions and valuable products and services for better living conditions. In order to foster creative learning in schools, teachers must as a matter of necessity be free enough to take a risk by trying new and alternative ways in their work. By so doing, Sahlberg (2009) believes the teacher can aptly guide students to take risks within an atmosphere of honesty, mutual respect and trust, which will both go a long way to foster creative learning.

The final enabling factor identified by Sahlberg (2009), is the willingness to accept fault when one goes wrong. Usually learning to be right and correct appears to be an important goal of education, but Robinson (2011) has noted that being fixated on being right cannot be a panacea for success in an increasingly complex and unpredictable world. Undoubtedly, being prepared to be wrong and sometimes appearing odd or even awkward in the face of an established norm is a crucial aspect of being creative and bringing forth ideas that are original and have value (Sahlberg, 2009). By implication, it is important that we foster creative learning by not only rewarding correct answers or solutions but by also rewarding and supporting the effort and alternative ways of solving problems however wrong they may appear to be and taking cognisance of the fact that creative thinkers who have come out with great inventions refused to conform to the status quo.

With regards to the promotion of creative learning in the context of subject domains, it has been noted by Opoku-Asare and Siaw (2016) that a subject like Visual Arts taught in secondary schools should actively engage students in practical activities so as to enable them to understand the demands of the subject and competencies, technical skills, relevant knowledge, proper attitude and discipline for individual and national development. In view of that, Lartey (2009), conducted a study of selected secondary schools which offer Visual Arts in Ghana and recommended that strategies for fostering creativity in that subject area should consist of the use of a combination of tools such as media, art, open-ended assignments, brainstorming and experiential learning. Essentially, Lartey is advocating for the use of more creative and learner-centred pedagogies to replace those that are more skewed toward didactic approaches in Ghanaian classrooms.

Both Starko (2010) and Robinson (2009) lay emphasis with regards to subjects like Mathematics, Science, Social Studies and English and raised the following fundamental questions:

- Are there any areas where students are encouraged to ask and answer questions?
- Does the curriculum being used offer processes for arousing curiosity, investigation, problem solving, or creativity in the area of study?

Thus, irrespective of the subject domain, it is relevant to pay attention to the content and approaches to the teaching of the respective subjects through adequate preparation, good presentation and the practical application of what is taught. Crossman (2013), in that regard, believes students must also be given the opportunity to explore their own ideas in relation to the content

taught and guided to find new ways of learning.

Additionally, we are of the view that a key strategy to fostering creative learning is the use of alternative assessment which, in simple terms can be defined as any form of assessment which does not depend on isolated skills in measuring the competence of students but is a comprehensive approach requiring students to perform, produce, create or do something. Our view is supported by Starko (2010), who asserts that alternative assessment uses tasks which represent meaningful instructional activities. Such assessments normally involve higher-level processes that ignite the problem-solving skills of students and invoke real-world applications. The next section takes a closer look at the role of teachers in fostering creative learning.

### 3.3. Teachers' role in fostering creative learning

It is worth noting that the teacher's role in fostering creative learning cannot be overemphasized as the teacher in most times remains the one who turns the wheel in the pedagogical journey. As can be seen in Fig. 1, there is creative pedagogy in the middle, and that represents what teachers do to result in the three interrelated elements. In line with this, Robinson (2011) makes an instructive statement that fostering creative learning in schools is largely dependent on the teacher and for that matter teaching should be considered as a creative profession.

Further, Alencar (2002) (cited in Kampylis, Saariluoma, & Berki, 2011) has advanced that teachers who facilitate students' creative thinking and abilities usually have seven core characteristics as follows:

- Good preparation and rich content knowledge in a particular domain
- High interest in both their discipline and their students
- Talent to stimulate students to produce ideas and search for new knowledge
- Respect for their students' individual personalities
- Ability to use varied instructional techniques
- Flexibility and openness to criticisms and suggestions by students
- Belief in the value of students' ideas

The seven core characteristics above bring to mind Longworth and Davies (1996, p. 22) definition of lifelong learning as "...the development of human potentials through a continuous supportive process which stimulates and empowers individuals to acquire all the knowledge, values, skills and understanding they will require throughout their lifetimes and to apply with confidence, creativity and enjoyment in all roles, circumstances and environment". The essence is that when all the characteristics are brought to play in the classroom, the teacher would be fostering creative learning, students would be learning creatively and these would culminate in what Lin (2009) terms teaching for creativity.

Furthermore, teachers who seek to foster creative learning should bear in mind that the individual is made up of a gamut of talents, desires, views and unique ways of doing things. A reason for which no one thinks and acts exactly the same way as the other. Clearly, it is crucial to recognise and appreciate the fact that the uniqueness of each student is not just for nothing and that the modern day students should not be put through school with all their unique potential merely to have them pass examinations and obtain certificates like everybody else. As noted by Agbowuro et al. (2017), the paramount aspect of creativity is the release of energy and potential. This echoes the essence of education, which is taken from its Latin root, *educare*, which means to lead out or bring out the creative potential and abilities inherent in each child or person.

Researchers (for example, Robinson, 2011; Nyarko et al., 2013) note that it is imperative for teacher education programmes to offer opportunities and immerse teachers in theory, practice and potential of creative ways of teaching and learning. Teachers must, in this light, see their work as a creative enterprise and with such positive mental attitude endeavour to foster and ignite the creative abilities of each student entrusted in their hands. That is also to deduce that whether teachers use traditional means to transmit knowledge and skills to students or they use more learner-centred approaches, teaching and learning may take place but the end result may not be the same. A reason for which teachers are obliged to shift to the latter approach to foster creative learning in their classrooms.

Overall, we draw the nexus between the three elements of the creative pedagogy framework that in spite of the NACCCE's Report (1999, p. 89) establishing that "*Teaching creatively and teaching for creativity are described as two different approaches of enhancing creativity*", Jeffrey and Craft (2004) have argued that creative teaching often inspires children's imagination and generation of new ideas which both lead to teaching for creativity. In a similar fashion, Lin (2012, p. 6) also states that "*The pedagogical strategies of teaching for creativity, e.g., strategies of learning to learn, not only facilitate children's agency and engagement but often seek to be inventive in order to arouse curiosity and learning motivation*". Lin's statement is a testament that the three elements are interrelated, rather than being mutually exclusive of each other.

## 4. Conclusion and implications

The synthesis of literature in this study has yielded results in the sense that we have been able to highlight on the pedagogical gap in Ghanaian classrooms which is birthed by the lack of practice and literature on this important topic in the 21<sup>st</sup> century and beyond. This situation has catalyzed the churning out of school graduates who are not creative thinkers, and we strongly believe that this has contributed to the numerous educational reforms in the country. It also came to light that ignoring creative learning in the Ghanaian classroom leaves much to be desired, but there are causes of this situation, some of which are explicit while others may be implicit.

For instance, the workload on the syllabi, lack of teaching and learning resources, ‘ignorance’ of creative learning, social-cultural influences and even the kind of objectives stated in the syllabi for various subjects serve as the starting point of inhibition of creative learning in our schools.

That notwithstanding, there is light at the end of the tunnel when one critically factors Lin’s framework for creative pedagogy as a process of fostering creative thinking. First of all, students must be made to use their imagination, even playfully, in order to think out of the box. There should also be policies and practices in place to push teachers to use creative pedagogies and students to learn creatively. Cooperative learning is also recognized as the way forward in ensuring creative learning as students are bound to learn from one another and from their teachers. When cooperative learning is effectively implemented, both teachers and students would learn to accept their wrongs as fixation to always being right does not enhance creative learning. Similarly, both teachers and students have been advised not only to reward right answers but also to acknowledge the efforts others put in even when the final result is wrong.

Also, we touched on the need to use alternative assessment procedures as sticking to the old formats for assessment will ginger students to learn only to pass exams. Our argument is that when other innovative formats are brought into play, the students are bound to learn creatively in order to meet the expectations of all forms of assessments and eventually fit into the 21<sup>st</sup> century context. Lastly, some authors may look at creative teaching and teaching for creativity from different lenses, we, however, agree with Jeffrey and Craft (2004) as well as Lin (2012) that they are interconnected and interrelated. This is true in the sense that creative teaching eventually leads to teaching for creativity and when these two elements are expertly taken care of, creative learning is birthed.

By way of implications, we highlight that creative learning has direct implication on nurturing the next generation of leaders in all spheres of society; leaders who are truly liberated of their individual creative potential, who have integrity (borne out of the realization of individual potential), are independent-minded and possess creative courage, ever willing to be useful to society through dedicated service and creatively channeling their cultural diversities towards a higher goal of nation building (Crabbe, 2017). Therefore, teachers should be trained to be creative learners and teachers so they, in turn, will help churn out creative learners in their classrooms.

Likewise, the implications of creative learning on adult education and lifelong learning cannot be underestimated by virtue of people living longer beyond the prescribed retirement age of 60 or 65 due to access to improved medicine and lifestyle (Harari, 2016). By implication, there are bound to be more adults returning to the classroom to acquire knowledge and skills. In this regard, the tenets of creative learning make it possible for adults to learn better through collaboration, shared experiences and improved wellbeing so people should be introduced to creative learning earlier in their lives so they grow with it.

It is crucial, however, to note that although creative learning has worked elsewhere, especially being the foundation of the success story of education in Finland, Singapore and other places, fostering creative learning within the context of Ghanaian schools should be a gradual, well planned and executed policy over a period of time. We should have a gradual and deliberate mind-shift starting first and foremost with the quality of teachers who are grounded in the theory and practice of creative learning, the provision of adequate teaching and learning resources and an overhaul of the school syllabi to capture activities and topics that align to creative learning.

Lastly, teacher education programmes should make creative pedagogy an integral part of the formation of teachers and in that regard aim at developing and incorporating more indigenous Ghanaian folk games which enhance creative and cooperative learning. The essence is that a creative teacher is bound to nurture creative students by utilizing the curriculum to create the necessary enabling environment to foster creative learning.

## 5. Areas for possible future research

Following are areas we suggest for possible future research in the area of creative learning in the Ghanaian context:

An exploratory research on the perspectives of stakeholders in the Ghanaian education context on creative pedagogy.

A large scale documentary analysis of pre-service teacher institutions and school syllabi to establish areas they touch on creative learning and how they can be leveraged.

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