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Creativity and initial teacher education: Reflections of secondary visual arts teachers in Ghana

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ABSTRACT

The development of creativity through learning is a significant part of Ghana's pre-tertiary education system framework. Achieving the successful implementation of creativity from policy to practice in schools relies on teachers in the local school system, who are shaped by their past teaching experiences and the training they have received during initial teacher education (ITE). Using interviews and observation data, this case study explored 16 secondary visual arts teachers' experiences and reflections on their training in relation to creativity and its impact on their current practice. Five themes emerged from an inductive analysis: containment, free expression, self-directed learning, replication of similar ideas and accountability-driven artistic productions. The study recommended both in-service training and ITE need to focus on creativity among other 21st-century skills in order for teachers to effectively implement creativity processes in their pedagogies. Additional measures for improving creativity in facets of ITE and teaching practice are discussed.

1. Introduction

Creativity has received a renaissance in education through its inclusion as a significant 21st-century skill, and several countries and institutions are advocating for creativity's inclusion in policy and educational documents (Egan et al., 2017; Mullet et al., 2016; Simonton, 2018; Wiggins et al., 2015). The focus on the 4Cs—creativity, critical thinking, communication, and collaboration (Daly et al., 2019; OECD, 2018; Schleicher, 2012) as core competencies in education and industry have increased their visibility in educational policy and practice (Bereczki & Kárpáti, 2018; Lin, 2011). Creativity specifically has been recognised as a life skill that stimulates learners' personal growth, artistic, academic, critical thinking, and problem-solving ability and has applicability in other domains, especially economic enhancement (Cropley, 2020; Plucker et al., 2020).

Ensuring the effective accomplishment of creativity as a goal in education depends on skilled teachers, as teachers are key agents in inspiring and developing creativity in learners (Karwowski et al., 2020; Vygotsky, 1995a). Teacher and learner relationships are vital in educational practice, both during compulsory education, and also as teachers complete their ITE (Ehtiyar & Baser, 2019). In Ghana, the aim of ITE for secondary visual arts teachers is to equip them with both domain-specific skills, capabilities and pedagogical content knowledge (PCK) (Okonkwo, 2014; Shulman, 1986, 1987; Zwirn, 2005). This training assumes that teachers will be able to function as skilled practitioners; that is, they will develop the efficacy to work as artist-teachers in the classroom, but also have the propensity to combine teaching with professional and commercial art practices external to their teaching practice. This ITE model aims to develop skills that will reflect in teachers' pedagogical processes and classroom experiences; specifically, to give them the authenticity of a specialised artistic experience when working with students, to make them practitioner role models to students, to imbue confidence and trust in students in their content knowledge, and to develop their own understanding of new concepts in visual arts education (Morris & Coleman, 2019). Teachers' experiences in their own ITE are critical, as they can influence aspects of their future teaching. Like learners, teachers' professional practices are shaped through social constructivist experiences—the collaborative kind of learning (Vygotsky, 1978; 1995b) with their peers and university lecturers during ITE (Ehtiyar & Baser, 2019).

Ghanaian interest in creativity in education was highlighted in the *2019 National Pre-tertiary Curriculum Framework's* expansion of the central focus of education from three to four key areas: Reading, Writing, Arithmetic and Creativity. The Ministry of Education's (MOE) framework called for several measures of creativity implementation in schools: considering bridging creativity from the policy level to the local

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school system; assessing teachers' efficacy in fostering creativity; exploring teachers' perceptions and understanding of creativity, and investigating teachers' development concerning creativity (MOE, 2019). Researchers report that promoting creativity in the educational sector cannot be achieved alone by featuring it in policy documents (Li & Li, 2019). It involves carrying teachers along the trajectory of creativity training to meet the expected requirements in their specific educational contexts (Swanzy-Impraim et al., 2022).

Furthermore, in Ghana, creativity in secondary visual arts education has been acknowledged as a rationale, a competency, and a topic to be taught (Adom, 2014; CRDD, 2010). Yet, despite having a long history of creativity within visual arts, studies suggest that secondary visual arts graduates are inadequately prepared and lack creativity, critical thinking, and problem-solving skills (Agyenim-Boateng, 2011; Eshun & Amoako-Agyeman, 2016; Quayson, 2006). Since visual arts teachers are mandated to inspire, nurture and foster creativity in visual arts students, they have been deemed ineffectual in accomplishing these outcomes in the past (Eshun & Amoako-Agyeman, 2016; Eshun & Osei-Poku, 2013). Therefore, it is necessary to analyse the experiences teachers received during their ITE covering creativity and its links to PCK (Shulman, 1986, 1987) and their current practices as teachers of secondary visual arts education in order to explore how they can best be supported to deliver the aims of the 2019 curriculum framework.

The main aim of this paper was to understand and analyse the current experiences of teachers in relation to their creative training and creative teaching, in order to propose aspects for improvement and support. Specifically, the paper had two research objectives:

1. Explore the experiences that influence teachers' development concerning creativity.
2. Analyse the impact of teachers' training on current teaching practices.

This is deemed an opportunity to inform ITE policy and educational practice and contribute to the literature surrounding creativity in Ghanaian secondary visual arts. This qualitative research explored 16 cases within the Ghanaian secondary sector. It interpreted visual arts teachers' perceptions and experiences during initial teacher education in terms of developing their appreciation and understanding of creativity. It explored how their contextual pedagogy (Shulman, 1986, 1987) affected their current teaching and learning approaches, constructed from a thematic analysis of data from interviews and observations. The analysis determined five themes that shape teachers' practices: *containment*; *free expression*; *self-directed learning*; *replication of similar ideas,* and *accountability-driven artistic productions*. In addition, teachers' experiences during their ITE development were strongly reflected in their current teaching practices, and not necessarily reflective of creativity as defined by the national framework.

1.1. Brief context of ITE for secondary visual arts teachers in Ghana

There are a number of ITE institutions mandated by the Ministry of Education to train pre-tertiary visual arts teachers in Ghana. Teachers may complete ITE at one of 38 (out of the 43) public and private colleges of education for Basic schools if they wish to teach primary and junior high, although visual arts teachers are predominantly completing ITE at three of five public universities (University of Education, Winneba, University of Cape Coast, & Kwame Nkrumah University of Science & Technology) for secondary school teachers (Buabeng et al., 2020; Kassah & Kemevor, 2016; MOE, 2017). The standard procedure for becoming a secondary visual arts teacher involves one of three options: (1) a 4-year bachelor's degree (B.Ed.), (2) a 2-year post-Diploma, or (3) a 1-year Professional Graduate Diploma in Education (PGDE) for untrained teachers or graduates with non-education-qualification—Bachelor of Science, Bachelor of Art, Bachelor of Fine Art, Bachelor of Technology (Armah, 2017).

The Ghanaian government has advocated for quality teacher education as essential for contemporary economic growth and productivity for the young generation (MOE, 2017, 2018; NTC, 2020). Hence, there has been a demand to improve ITE across the country. ITE is guided by the *2017 National Teacher Education Curriculum Framework* and the *National Teachers Standards* (NTS) set by the *National Teaching Council* (NTC) (MOE, 2017; NTC, 2020). The standards are set as a determinant of competent teaching. The Education Act 2020 (Act 1023, section 59) requires the NTC to govern the Ghanaian teaching profession (NTC, 2020). The framework for the ITE is built on four armatures: *subject and curriculum knowledge*, *literacy studies*, *pedagogic knowledge,* and supported *teaching in schools* (MOE, 2017).

Teacher training in Ghana emphasises a pedagogic focus on interactive teaching, modelling good instruction and a learner-focused approach to teaching (MOE, 2017, 2018). Notably, ITE for secondary visual arts teachers specifically emphasises creativity in four areas: teacher education philosophy; subject and curriculum knowledge; as pedagogic knowledge, and as a competency to be inspired, taught, and developed in students (MOE, 2017, 2019; NTC, 2020). Studies suggest that the pedagogical approach recommended for ITE within the Ghanaian context integrates the lecture method, collaborative/group work, class teaching/discussion and hands-on activities in order to achieve the four armatures of ITE (Armah, 2017, MOESS, 2007). A study conducted by Duku (2012), on pedagogical foundations of visual arts education specifically, claims that two ITE institutions that train secondary visual arts teachers support the integration of student-centred approaches more than teacher-centred strategies, suggesting that these teachers may be better equipped to meet creativity requirements through their pedagogies. In the next section, we discuss the learning theories that will focus on the context for discussing the findings.

2. Literature review

2.1. Learning theories

Researchers assert that teachers' daily pedagogical or instructional activities in their classrooms and studios are shaped by the training received during their ITE (Harris & Sass, 2006; Tatto, 2015) and policy (e.g., curriculum, mandate, best practice models). ITE generally focuses on training teachers in pedagogical content knowledge (PCK) (Shulman, 1986, 1987), teaching philosophies, and instructional activities to be used in classrooms (Creasy et al., 2011; OECD, 2009). These are characterised by learning theories (Kay & Kibble, 2016; Zhou & Brown, 2017), and are generally either teacher- or learner-centred theories. Table 1 summarises core learning theories with their properties and relationship with creativity.

The table above demonstrates the uniqueness of each learning theory and how some are more sympathetic to the development of creativity and creative processes. Researchers contend that these theories are valuable tools for learning and teaching, with distinct impacts and advantages for each learning approach (Bates, 2015; Harasim, 2017; Waseem, 2020). These theories provide the foundation for selecting certain teaching methods, as understanding learning theories assist teachers in understanding learners' educational needs and helps them to employ an appropriate approach that suits the learning context. Wrenn and Wrenn (2009) assert that combining learning theories in educational practice is one of the best ways to enhance effective teaching and learning. Yet, the choice of a learning theory in educational practice is contextual and depends on the objective to be achieved (Bates, 2015). Aside from behaviourism, all the presented theories show some potential to support the teaching and learning of creativity. Most of these theories employ student-centred practices; however, it is essential to note that teacher-centred theories, such as cognitivism, also have a role in developing creativity through modelling ideation and problem-solving.

Table 1
Learning theories and their properties.

	Behaviourism	Liberationism	Constructivism	Social constructivism	Self-directed learning	Social-cultural theory	Cognitivism
Theorist Name/s	Watson, Thorndike, Pavlov, Skinner	Paulo Freire	Bruner, Dewey Vygotsky, Piaget	Vygotsky	Knowles	Vygotsky	Piaget
Educational strategy	Teacher-centred	Learner-centred	Learner-centred	Learner-centred	Learner-centred	Learner-centred	Teacher-centred
Impact on Creative Process	Fails to account for individual thinking; Makes learners non-independent; Suppresses creativity	Encourages critical thinking; Facilitate creative thinking; Makes learners independent and innovative	Progressive learning; Explorative with environment; Support ideation; Promotes critical thinking and problem-solving	Fosters creativity via contact with peers, experts, manipulation of tools	Facilitate creativity via exploration, manipulations, innovations, ideations, and experimentation	Fosters creative thinking	Improves cognitive, affective, and psychomotor domains; Facilitate creative thinking and problem-solving; Thought process support ideation
Mode of instruction	Conventional teaching; Controlled learning; Direct instruction; Task-based learning	Non-conventional teaching; Freedom to choose what to learn	Interactive learning with the environment; Personalised learning; Collaborative learning; Project-based learning	Learning via social interaction; Collaborative learning; Discovery learning; Face to face	Problem-based learning; Personalised learning; Independent learning; Discovery learning	Social process; Interaction with experts; Collaborative learning	Conventional teaching; Transmissive learning
Relevant Principles	Response and stimulus; Reinforcement; Repetitive learning	Individual-paced learning	Collaborative; Planned scaffolding; Problem-solving	Collaborative; Planned scaffolding; Problem-solving	Individual-motivated and paced learning	Bond and relationship building	Assessment-driven; Individual focus; Mental ability; Memories; Learning hierarchies
Role of teachers	Learning setting dominance; Formative assessment; Serves as subject matter expert	Guide learners to create and discover knowledge	Facilitator in the TL process; Offers support; Stays in the background; Unequivocal teaching	Serves as guide	Less influence in learning process	Aid learning; Engage students in learning	Serve as subject matter expert; Dominate learning
Role of students	Passive in the TL process; Regarded as empty vessels to be filled	Active involvement in the TL process; Centre of instruction	Learner in control of learning; Learn by doing Collaborate with peers	Learn in phases via social interaction	Entirely in charge of learning	Learn via relationships with experts, peers, and the environment	Focuses on individual learning and assessment-oriented; Active partaker

(Akpan et al., 2020; Hawkins, 2018; Kay & Kibble, 2016; Uddin, 2019; Westbrook et al., 2013).

2.2. Theoretical framework: understanding creativity

Creativity as a 21st-century learning competency has been given broader attention in education in diverse contexts globally (Apak et al., 2021; Choi & Kaufman, 2021; Lloyd-Cox et al., 2022). Recent studies have reiterated its significance in education, teacher development, industry and other facets of life (Cotter et al., 2022; Kaufman & Glaveanu, 2022; Weng et al., 2022). Within this study, creativity is understood from a social constructivist and sociocultural theorist perspective, supporting the belief that creativity can be inspired, taught, and developed through support from the teacher. The student-centred theories outlined in Table 1 argue that the teacher can assist in transforming learners' personality, knowledge, intelligence, skills, and abilities through teaching and learning. They support the authors' belief that creativity can be developed through practice, practising creative thinking activities, practice-based innovative approaches, and creative pedagogies. They acknowledge that creative learners: (1) show a desire to learn; (2) have a tendency to embrace challenges and persist; (3) see effort as the road to mastery; (4) learn from criticism; and (5) draw inspiration from successful people in the field of study, both experts (e.g. university lecturers or teachers) and beyond (Rissanen et al., 2019). The theories serve as a foundation or rationale that seeks to foster creativity by transforming facts and practices from training into novel knowledge and skills. With them, creativity can be improved through teaching and training (Wadaani, 2015). However, it is important to note that the authors' definition of creativity differs from the Ghanaian secondary visual arts definition influenced by policy documents and educational documents—syllabi and textbooks, which are more product-oriented than process-oriented (CRDD, 2010; Swanzy-Impraim et al., 2022). This understanding of creativity was applied to both teachers' current practices, as well as their ITE experiences. Research has shown that creativity enactment is achieved by aligning the following factors: policy, curriculum, and teachers' development synchronised to teachers' understanding of the right conception of creativity, their creative efficacies and PCK linked with creativity and its enactments in learners (Ball et al., 2011, 2012; Swanzy-Impraim et al., 2022).

Ultimately, an over-reliance on the teacher-centred theories outlined in Table 1 during instructional practices may limit or suppress creativity in students. The authors' contend that a blend of teacher-centred and learner-centred theories and creative pedagogies in teaching practice facilitates creative development in learners. The next phase of the paper discusses the methodology and methods used to gather data for the study.

3. Method and materials

3.1. Research design

This paper is built from a broader study investigating creativity and creative pedagogies in practice in secondary visual arts in Sekondi-Takoradi, Ghana. It employed a multi-site qualitative case study design (Creswell & Creswell, 2018) guided by the following research questions:

(1) What are the teachers' experiences at school during their development in relation to creativity?
(2) How do training experiences affect teachers' current practice?

To address these questions, the study explored 16 Ghanaian secondary visual arts teachers' reflections and experiences during their development and observed their instructional activities in the eight case study locations to analyse the current state of teachers in relation to creativity enactment and propose facets for improvement.

The constructivist paradigm shaped the study (Knol, 2011; Ultanir, 2012). The constructivist paradigm assisted the researchers in constructing a shared understanding of the participant's reflections to build and understand the creative training of participants, its enactment, and its impacts on current practice.

3.2. Participants and sampling

Qualitative researchers' utmost aim is to obtain insights into a unique social context within a site or location (Creswell, 2014). Due to this, the researcher chose a purposive sampling technique to select secondary schools for the study. The lead researcher sent invitation letters with information sheets and consent forms to the heads of all the government secondary schools in Sekondi-Takoradi, where visual arts was taught. Eight out of eleven government secondary schools in Sekondi-Takoradi in Ghana agreed to be part of the study. These schools represent co-educational, single-sex, and secondary technical schools offering visual arts in the Metropolis. The heads of the schools introduced the lead researcher to the heads of visual arts departments and scheduled a meeting with the teachers. The secondary visual arts teachers were acquainted with the study through the information sheets, with some teachers consenting to participate.

The purposive sampling technique was used to sample teachers for the study accommodating the criteria preferred for this study. The sampled teachers were (n = 4) female and (n = 12) male. The gender representation reflects the ratio of male to female secondary visual arts teachers within the Ghanaian context. Each school selected two teachers representing a set of specialist teachers who taught any 2D (graphic design, painting, textile design) and 3D (sculpture and ceramics) studio areas. The involvement of creative activities in the varied studio areas rationalised the choice.

Participation in the study was voluntary, with informed consent aligned with the ethics protocols. The teachers could withdraw at any time per the ethics requirements. Pseudonyms have been utilised in chronicling to uphold teachers' confidentiality (Creswell, 2014). Table 2 below presents the background information of the teachers.

Table 2
Teacher Participants' Background Information.

Teacher participants	Gender	Years in Service	Education/ Professional Background	Specialised Subject Areas
Claenn	Male	2 years	B.Ed. Art/HND Graphic Design	Graphic Design GKA
Chrisogle	Male	10 years	B.Ed. Art	Picture Making Ceramics
Nina	Female	8 years	BA Industrial Arts Diploma in Education	Graphic Design Ceramics
Jones	Male	10 years	B.Ed. Art/HND Graphic Design	Sculpture Graphic Design
Adood	Male	6 years	BA Graphic Design	Graphic Design GKA
Eddii	Male	10 years	B.Ed. Art	Graphic Design Leatherwork GKA
Leyan	Male	18 years	B.Ed. Art Cert A	Graphic Design Leatherwork GKA
Sarosm	Female	2 years	B.Ed. Art HND	Ceramics GKA
Siaf	Female	10 years	B.Ed. Art HND Graphic Design	Graphic Design GKA
Penz	Male	8 years	B.Ed. Art HND Painting	Picture Making GKA
Shab	Male	20 years	BA Publishing Studies	Graphic Design GKA
Osaak	Male	16 years	BFA	Picture Making GKA
Eddson	Male	3 years	B.Ed. Art	Textile Design GKA Leatherwork
Koaug	Male	4 years	B.Ed. Art	GKA Graphic Design
Yamen	Male	11 years	MA Art & Culture B.Ed. Art HND Painting & Sculpture	Sculpture Picture Making
Vimen	Female	2 years	B.Ed. Art	Ceramics Textile Design GKA

Note: BA=Bachelor of Art, B. Ed. = Bachelor of Education, HND=Higher National Diploma, MA = Master of Art, BFA=Bachelor of Fine Arts, GKA = General Knowledge in Art.
(Swanzy-Impraim et al., 2022)

3.3. Procedure and data collection

Ethics approval for the study was given by the Human Research Ethics Committee at the authors' university in Australia. Permission and assurance for the study were sought from Ghana Education Service (Sekondi-Takoradi Metro Directorate). Consent was sought from all the heads of the secondary schools through information sheets and consent forms prior to the consent process with participants.

Interviews (Creswell & Creswell, 2018) were conducted to explore the participants' reflections and experiences during their ITE concerning creativity. They were beneficial for further getting the story behind a participant's experiences and enabling follow-up with certain participants to probe responses (McNamara, 1999). The study employed semi-structured interviews as one of the instruments for gathering data. The lead researcher interviewed the participants separately at their convenient times at the various case study locations. The scheduling of the interviews ensured the data collection did not interfere with their daily educational practice. The data gathered were recorded, and audio recordings were transcribed into a textual transcript analysis. The lead researcher visited the study site to conduct face-to-face —in-person interviews (Creswell, 2014) depending on the availability of the participants. The first part gathered data about the background and demographic information of the teachers. The second part communicated and generated views concerning the concept of creativity, teachers' perceptions of creativity, teachers' perceived roles of creativity in educational practice, teachers' development concerning creativity, teachers' levels of creativity in relation to the little c's, Pro c's and Big C's, and creative pedagogies employed by teachers in visual arts education at the secondary school level. The second phase of the semi-structured interviews lasted between 15 and 20 min before the lead researcher observed the teachers' lessons to provide a snapshot of their perspectives on creativity during ITE and build rapport before observing their teaching. The third part was the follow-up interviews conducted by the lead researcher via telephone and e-mail after daily reflections following the observations for clarifications of the interview data (Creswell & Creswell, 2018). Table 3 presents details of the interview questions addressing research question 1.

Observations in research allude to giving interpretative accounts of actions, activities, behaviours, events, and personal interactions (Austin & Sutton, 2014; Patton, 2002). Robson (2002) said, "what people do may differ from what they say they do, and that observation provides a reality check" (p. 310). Observation enabled the researcher to come to terms with everyday behaviour or an item that might be taken for granted, anticipated, or overlooked and obtain an inclusive picture of the circumstances (Cooper & Schindler, 2001). The lead researcher observed participants' lessons, and notes were taken with a notepad for

Table 3
Interview questions.

Research question	Interviews questions
What are the teachers' experiences at school during their development in relation to creativity?	Where were you trained during your ITE? Did you go through the four-year programme or post-diploma? What were your subject combinations? What were your experiences regarding creative development during ITE? Did you receive any restrictions on the techniques, themes, or process of artistic productions? Were you allowed to work with varied tools, materials, and equipment? Were you tempted to work for marks and to suit lecturers' preferences? How were you getting ideas for your work?

one or 2 h, depending on their timetable. The observation notes captured three things: time, descriptive notes (instructional activities) and reflective notes. The descriptive notes recorded details of the instructional activities. In contrast, the reflective notes recorded how the instructional activities were linked to interview data on teachers' training with regard to creativity and its impact on current practice.

3.4. Data analysis

Data from the interviews and observation notes were analysed and synthesised using the data analysis spiral proposed by Creswell and Poth (2018) entrenched in the organisation, perusal, classification, and synthesis. The organisation encapsulates the filing of the interview transcripts and observation notes using Microsoft Word and the creation of a database for each participant within NVivo 12 plus. The researchers perused the qualitative data via multiple readings to get an overall sense of what the data were saying. The classification occurred by inductively coding to form themes guided by the research questions and the topic (Saldaña, 2013). The researchers found and interpreted the meanings in the data (Creswell, 2014; Creswell & Creswell, 2018). Lastly, the data were synthesised, thus integrating and summarising data for presentation. The qualitative data were presented using the descriptive form (Creswell, 2014).

3.5. Research credibility and trustworthiness

The researchers determined the findings' truthfulness, credibility, and trustworthiness through varied mechanisms, including member checking/response verification and triangulation (Creswell, 2014; Creswell & Creswell, 2018). The researchers triangulated the data from multiple sources, using both interviews and observations (Creswell, 2014). The idea of triangulation in this context was to seek confirmation of data findings by merging diverse viewpoints (Yeasmin & Rahman, 2012). The lead researcher did inductively coded interviews first and applied the coding to the observations to compare the two. The same data was gathered from all the individual teacher participants' in their separate case study locations during the interviews. Similarly, the same observation checklist was used for individual teacher participants from different case study locations during the observations of teachers' lessons. Observations were done twice, and the data were coherent. The lead researcher ensured direct transcriptions of interview recordings verbatim and discussed the transcripts, observation data and codes collaboratively in a series of team meetings with co-authors to safeguard the credibility and trustworthiness of the data. The interview data were sent to the participants for confirmation. The lead researcher also ensured dependability by documenting at length all the processes within the research project. The subsequent section provides the results of the qualitative data.

4. Findings

This part of the paper presents the thematic analysis of the data concerning secondary visual arts teachers' experiences and reflections during their training on creativity and its developments in the various Ghanaian institutions responsible for training secondary visual arts teachers. It also highlights the impact of teachers' training on current practice.

4.1. Teachers' reflections during initial teacher training

The experiences teachers go through during their training and development shape their teaching pedagogies, teaching philosophies, PCK and teaching practice in general (Peel, 2017; Reynolds et al., 2021). The Ghanaian secondary visual art teachers participating in the study were required to share their experiences concerning creativity and its inculcation during their ITE. Five themes emerged from the data: *containments*; *free expression*; *replication of similar ideas*; *self-directed learning (self-taught)*; and *accountability-driven artistic productions*. Table 4 presents the summary of the frequencies for the themes and codes.

4.1.1. Containments

Relating to teachers' pedagogical activities, some teachers prefer to restrict learners to grading schemes. Through reflections on the secondary visual arts teachers' development during ITE, some participants affirmed being constrained regarding creativity during their development. Other participants claimed they were restricted from the inception of their training to conform to specific guidelines (e.g., principles of art, finishing techniques), styles, and other conventions during their ITE. For instance, Osaak stated:

> "At a point when I [teacher] started my art education, I had that restriction during the first year. The lecturers were caging us to work in a certain cube to work in a certain way …."

Osaak emphasised:

> " … some lecturers came from the purely traditional/ indigenous aspect and wouldn't accept the blend of the contemporary, so for lecturers like that, they would want you [teacher] to stick to a particular way of going about the traditional way of doing things."

Penz shared a similar insight:

> "In school, I [teacher] will say there were times we were stifled concerning what we can do as students. We were made to follow certain strict rules or conventions in art …."

Some participants claimed some of the restrictions were self-imposed and attributed them to a lack of tools, materials, and equipment for artistic productions. Eddson disclosed:

Table 4
Teacher participants' reflections concerning creativity during ITE.

Themes	f	Codes	f
Containments	9	Restricted to conform to certain conventions	6
		Self-restriction	1
		Rejected creative output	1
		Limited to tools and materials	1
Free expression	15	Freedom to explore	11
		Utilise resources in the environment	2
		Use of less expensive materials	2
Replication of similar ideas	6	Copying ideas from colleagues	4
		Reproduction of similar ideas	2
Self-directed learning	1	Self-taught due to lack of attention	1
Accountability-driven artistic production	3	Worked to suit lecturers' preference	2
		Worked for marks	1

"We restricted ourselves as students because some of the tools and materials were expensive, so we used less expensive tools and materials due to financial constraints."

Their response reflects the application of the teacher-centred approach and behaviourism theory: setting boundaries for learners' innovativeness and explorative abilities to styles, media, and other artistic impressions suppress creativity (Seelig, 2012; Skillicorn, 2014). The participants encountered strict course coordinators and lecturers who opposed flexibility in artistic productions and who spearheaded conformity in educational practice. Financial constraints also contributed to a lack of tools and materials that led to self-restriction, affecting teachers' creative outputs during ITE.

4.1.2. Free expression

The freedom to explore artistic productions stimulates creative, innovative and critical thinking (Wannapiroon & Pimdee, 2022). While some teachers spoke about being constrained during ITE, the findings revealed that most participants had their training without restrictions. This implies being allowed to be innovative and explore with tools, materials, styles, and other creative activities. Chrisogle specified:

"We [pre-service teachers] were given the room to operate. The lecturers gave us the freedom to work with a variety of media, techniques, and materials. We were using any other thing we come into contact with for doing our work."

Leyan claimed:

" … we were allowed to explore during my training as an educator. In those days, we were limited to tools like computers and other materials, but we did a lot of research through reading books and exploration that enhanced our creative abilities."

Nina shared a similar insight:

"They gave us the free will to explore with various media and techniques. We were not restricted to some specific principles, rules, and guides. You can combine any media and style to create a work of art."

Yamen stressed a significant level of freedom: " … I was given the room to explore with little or no supervision or guidance at all."

The participants' responses indicate they experienced the liberationism theory as a student-centred approach to learning. Their teachers encouraged freedom to explore beyond perceptual territories in order to produce creative works of art. This freedom led to utilising environmental resources and less expensive materials for artistic productions.

4.1.3. Self-directed learning

Self-directed learning as a student-centred approach emerged from the study's findings. The pedagogical practices and environment, such as a lack of attention given to individual students by the lecturers and the effect of large class sizes, compelled some participants to resort to self-taught, self-directed learning and independence. Claenn noted:

"I [teacher] learned most of the things on my own. I realise the class size was massive and not getting the needed attention, so I resorted to self-taught and was learning most of the things on my own."

The data from the interviews demonstrated a lack of attention given to individual teachers during ITE. This experience affected their creative traits and output, compelling some to resort to more independent and self-directed approaches to learning most art production techniques and practices.

4.1.4. Replication of similar ideas

The participants suggested they copied from colleagues when given assignments during their ITE, and admitted it was a challenge that affected their creative output and critical thinking potential during their development. For example, Jones highlighted:

"The task will be given, but it depends upon the individual abilities. Sometimes some of us [teachers] were tempted to follow others to produce the same or similar works."

Adood shared a similar insight:

" … others too, per their preference, the type of colours used and the things you do. Sometimes based on the marks you get for the work, it gives you an idea as to the preferences of the lecturers, and you are tempted to follow the same trend …."

Some teachers during ITE claimed they were not challenged to work beyond perceptual territories in the earlier indicated insights. They suggested replicating ideas from fellow peers in their assignments and tasks, which is not well regarded in visual arts in education (Okada & Ishibashi, 2017). Similar ideas, patterns, forms, colours, and styles were synchronised to the lecturers' preferences and from the works of their peers in order to successfully complete their ITE training.

4.1.5. Accountability-driven artistic production

The findings from the qualitative data on the experiences and reflections of secondary visual arts teachers revealed assessment-driven artistic productions. This is consistent with cognitivism theory, since it is individually focused and assessment-driven. The participants stated working for marks instead of considering creativity-oriented productions. For example, Adood specified:

" … others too per their [lecturers] preference, the type of colours used and the things you [teachers] do. Sometimes based on the marks you get for the work give you an idea of the preferences of the lecturers, and you are tempted to follow the same trend for the sake of the marks. It affected us in our workings, and we tried to please them instead of expressing ourselves freely with ideas and media."

Yamen shared a similar intuition:

"I had a taste for certain colours and styles and derived it from my lecturers' works. We also used a specific colour or style to attract marks to the lecturers' preference."

Teachers' responses discovered some of their artistic productions during ITE were inspired by the marks for summative assessment instead of creativity. These were attributed to lecturers' preference for specific colours, shapes, styles, and media. Consequently, such experiences appeared to have some level of influence on teachers' current pedagogical and artistic practices.

4.2. Impact of teachers' development on current practice

The data gathered from the observations of current practice often reflected the ITE experiences they described during the interviews. Table 5 displays the ITE pedagogies experienced as described in the interviews, and the list of observed pedagogies in secondary visual arts classrooms and studios. In addition, Table 6 displays how ITE practices translate to teachers (participants') classrooms and studios.

Teachers who had the flexibility and freedom to explore various

Table 5
ITE pedagogies and pedagogies in practice in the secondary visual arts classrooms.

ITE Pedagogies	Observed Pedagogies
Lecture method	Lecture method
Class teaching/Discussion	Discussion method
Hands-on activities/Practice-based approach	Demonstration method
Group work	Collaborative approach
Questioning approach	Questioning approach

(Armah, 2017; Duku, 2012; MOE, 2017, 2018).

Table 6
Cross-tabulation of ITE pedagogies and observed pedagogies in the secondary visual arts classrooms and studios.

ITE Pedagogies	Observed Pedagogies															
	Adood	Chrisogle	Claenn	Eddii	Eddson	Jones	Koaug	Leyan	Nina	Osaak	Penz	Sarosm	Shab	Siaf	Vimen	Yamen
Lecture method	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Class teaching/ Discussion	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Hands-on activities/ Practice-based approach		x	x			x			x		x			x		
Group work	x								x		x					
Questioning approach	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Other pedagogies observed but not experienced in teachers' own ITE	Demonstration method															
Hands-on activity																

media, styles, and technologies replicated the same philosophy and experience in their educational practices. During teaching practices, students under their tutelage experienced the freedom and exposure to working beyond their perceptual territories. Most teachers who were observed to be enacting creativity had revealed through the interviews to have experienced the freedom of expression and exploration during their ITE.

Again, the teachers who resorted to self-directed learning during ITE were also observed to be creative teachers who encouraged experiences such as: autonomy, independence, self-engagement and self-motivation; who inspired creative and flexible thinking and delayed judgement; who encouraged students to go beyond the known knowledge both during and after instructional hours. These conditions reflect Cropley's (1995) nine conditions that need to prevail if teachers are to foster creativity, as cited in (Soh, 2017).

Similarly, teachers who admitted copying ideas from peers in ITE were observed to be less concerned with creativity and its development. This was reflected in their pedagogies, through the use of more didactic teacher-centred approaches in their practice. For instance, a teacher participant gave students samples of package designs to reproduce the exact copies of the packages. The focus was narrowed to the exact replication of the designs instead of allowing students to conceptualise and develop varied ideas for their works.

Finally, teachers who professed to work for marks and to please lecturers replicated similar experiences in their current practice. Their classroom activities were accountability-driven and imposed conventions (rules to follow, styles, and finishing techniques) on the students. A more significant percentage of teachers in this bracket employed the behaviourist approach (Burhanuddin et al., 2021) in teaching-learning processes. The next section of the paper provides insights into the findings synchronised with recent literature on creativity, teacher development and visual arts in education.

5. Discussion

The study explored teachers' reflections and experiences during their development in relation to creativity and their impact on current practice. The findings disclosed containments by lecturers in the first year, which is consistent with the behaviourism learning theory (Kay & Kibble, 2016). It is a teacher-led approach that introduces learners to foundational and domain-specific skills and knowledge (Burhanuddin et al., 2021). The participants discourse on these restrictions aligned them to reasons such as: (1) restrictions to conform to conventions and self-restriction; (2) the introduction to domain-specific skills and techniques; (3) the introduction of new programmes, non-flexible lecturers, and course coordinators, or (4) self-imposed limits due to lack of tools, materials, and equipment in venturing into unfamiliar territories in artistic processes and productions. Research suggests that behaviourism and containment in educational practice are espoused to introduce learners to foundational and domain-specific skills and knowledge (Burhanuddin et al., 2021; Nath & Sajitha, 2010; Westbrook et al., 2013) and not to extend students' creative development. Other studies share a similar but elaborated view that one of the best approaches to fostering creativity is employing a blend of theories such as liberationism, constructivism, sociocultural and social constructivism, where learners will work independently and have teachers as facilitators in the background.

Pre-service teachers' contact with experts (university lecturers) in teaching and learning (Akpan et al., 2020; Bates, 2015) appears to shape their creative process abilities and PCK. These are demonstrated by the consistent replications of ITE teaching approaches in the participants' current teaching practices. This emphasises the need for teacher development programmes such as teacher training and continuous teacher development to blend learning theories that support choosing more student-centred approaches in the teaching and learning processes that aid the teachers' creative development in order to support the new

curriculum.

Another significant finding is the benefit afforded to teachers who were given the freedom to explore various art tools, materials, and techniques for designing and production during ITE. This is consistent with liberationism, constructivism, and social constructivism learning theories. Researchers and art educators posit that creativity can be enhanced in students by allowing learners to explore mixed media, styles, technologies, unfamiliar territories, and exposure, delaying judgment during the exploratory stages to solicit more ideational and diversifying thoughts and concepts (Akyıldız & Çelik, 2020; Nathan, 2018; Seelig, 2012). Teachers who explored a range of tools, materials and techniques often replicated these experiences for their students. This highlights how adopting a blend of student-centred theories can enable learner freedom to experience the creative process. Having a wider range of experiences will likely lead to the creation of unique artistic outcomes, and ITE programmes that provide various tools and resources for pre-service teachers to experience and respond to in developing their creative practices seem to benefit their future practice.

One participant professed to have adopted self-directed learning during his development in relation to creativity due to the large class size and less individual attention given to some pre-service students. This teacher was observed to be encouraging creativity in current practice, suggesting that ITE might explore how to position students to be more independent-minded and employ self-directed learning to improve their creative abilities, as long as this happens when they are ready and have solid foundational skills. This approach aligns with Teo (2010), cited in Mishra et al. (2013), who suggests that 21st-century educational aims, such as developing creativity, call for learners to take the initiative in their learning.

Reproducing similar ideas in artistic productions without attribution or for a specific cause (i.e., appropriation) is unacceptable in the educational space since art education inspires ideational prowess, creativity, critical thinking, originality, and innovation (An & Youn, 2018; Ulger, 2016, 2018). Visual art in education can empower learners to solve problems using different approaches and encourage diversification in artistic productions (Eisner, 2002; Hensley, 2020). Okada and Ishibashi (2017) assert that exposure to unfamiliar ideas and styles fosters creativity, while familiar ideas or techniques suppress creativity. Consequently, Pennycook (2010) attests that the concept of copying is uncreative; thus, it is contrary to creativeness. This raises concern about the obligation to discourage students from reproducing similar or the same ideas in artistic practice in teacher training programmes and professional educational practice. Teachers who reproduced works were seen to replicate narrow learning opportunities in their own teaching practice, inhibiting a range of creative experience for their students.

Theories such as liberationism and cognitivism have the teacher dominate the learning setting, serving as a subject matter expert with a sharp focus on assessment-driven learning that affects creative development in the teaching and learning process. Studies suggest that the educational system over the past years has been biased towards accountability, imitation, recitation, memorisation, standardised testing, individualism, and competitiveness (Ershadi & Winner, 2020; Robinson, 2009). Students' outputs and productions are assessment-driven, which tends to drill out their creative potential (Seelig, 2012). Cremin (2017) argues that the educational context demands accountability, an over-reliance on curriculum controls, educational and didactic pedagogical practice, and constant monitoring constrains creativity. This necessitates the requirement to ease restrictions on accountability-driven artistic production to give way for free expression, delayed assessment, and unlimited freedom to inspire and develop creativity in students. Consequently, delayed judgement in pedagogical practices also solicits more ideas, allows learners to think critically and stimulates creativity in the classrooms and studios (Murawski, 2014; Peterson et al., 2018; Vincent-Lancrin et al., 2019). There is potential to use the Ghanaian curriculum reform to improve learners' skills and creative thinking if teachers are equipped to facilitate this learning.

The connection between teacher efficiency and the preparation of teachers is vital in the educational system (Harris & Sass, 2006; Tatto, 2015). The study's findings confirmed that the training teachers received during their ITE experience shapes and influences their professional teaching practices. The results established that teachers replicated their experiences and reflections into actual pedagogical practices by juxtaposing the interview data with the observation data. Tatto (2015), who studied the influence of teacher education on teachers' beliefs about the purposes of education, roles, and practice, claimed that the training teachers receive during their development shapes their teaching practice. Duku (2012) disclosed that the ITE lecturers of art education in Ghana over-rely on the lecture method during instructional engagements with pre-service teachers. This might be shaping more teacher-centred approaches in some classrooms.

6. Limitations of the study

The study centred on in-service teachers' reflections on their development during ITE in relation to creativity. The experiences of the pre-service teachers and lecturers could add to the richness of the data and give a comprehensive overview of ITE and creativity development in the Ghanaian context.

Another limitation is the impact on practice; as the teachers were only observed twice, there is limited reliability in whether the pedagogies observed were consistent with other lessons they deliver. Longitudinal studies are required to confirm the pattern of ITE's impact on practice.

Lastly, the sample included in the study may not be reflected as a representation of all the secondary school teachers in Ghana. The study provides local findings from one context, and similar studies should capture a broader scope of participants across Ghana.

7. Conclusion

This research project explored Ghanaian secondary visual arts teachers' experiences and reflections about creativity during their development and practice as professional teachers. In light of creativity's relevance in education (Kaplan, 2019; Simonton, 2018; Soh, 2017), it is a major goal of Ghana's *2019 National Pre-tertiary Curriculum Framework, the 2017 National Teacher Education Curriculum Framework* and the *NTS (*MOE, 2017, 2018, 2019; NTC, 2020). Creative development in education is in synergy with teachers' perceptions and understanding of creativity and pedagogies employed by teachers in the teaching-learning process (Bereczki & Kárpáti, 2018; Swanzy-Impraim et al., 2022; Watson, 2018), as well as ITE programmes' goals regarding creativity. The training teachers receive during professional development shapes and significantly informs their educational practice (OECD, 2009; Vally et al., 2019).

The result of the study indicates that most of the teachers had the opportunity to explore varied media, styles, tools, and equipment during their ITE. Others were restricted from the early years to conform to conventions in art, and in some instances, a few teachers worked to suit lecturers' preferences and for marks without considering a creative component, thereby limiting their creative outputs. The study suggests that self-directed learning improves creative potential. In contrast to self-directed learning, it confirmed that other teachers reproduce similar ideas to what their peers produced without extensive effort to create unique concepts and artefacts, and that these teachers replicated similar narrow approaches in their own practice. Patston et al. (2018) assert that the utmost opportunity for promoting creativity at the local school level is to develop the creativity of individual teachers through practical training and development.

The secondary visual art teachers' experiences and reflections on their development have provided insight into the realities of the training received at the various ITE institutions responsible for preparing art

educators. The study informs stakeholders mandated to promote the creative agenda to concentrate on the secondary visual programme (teachers and students) and focus on the ITE programmes concurrently with in-service practices.

8. Recommendations

In the professional development of secondary visual arts teachers, we recommend that ITE institutions concentrate more on stimulating and developing creativity, problem-solving abilities, and critical thinking in pre-service teachers. For example, they could introduce a semester-long or year-long course on creativity for first-year pre-service teachers to enhance their understanding and efficacy in creativity and its enactment in education (Vally et al., 2019).

Seminars, workshops, and symposiums could also be organised by the Ghana Education Service (GES), Ministry of Education (MOE) and Art Teachers Associations to upskill teachers on creativity and its enactment via theories adopted and creative pedagogies to support the implementation of the new curriculum, which is a vital source of learning for in-service teachers.

Finally, stakeholders in education and teacher training institutions should align the experiences in the training programmes to the aims and aspirations of the education system. There is a need for similar studies to be conducted in other regions in Ghana to get a current picture of the experiences in the ITE programmes with regard to creativity and its developments in students.

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