



# Integration of Universal Design for Learning in Creative Arts Education: Perspectives from Basic Schools in Suame Municipality, Ashanti Region, Ghana

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## ABSTRACT

The existing teaching approaches used for teaching Creative Arts in basic schools in Ghana do not adequately address the diverse needs of students. This study aimed to investigate the integration of Universal Design for Learning (UDL) in Creative Arts education as an intervention to achieve high inclusivity and heighten the academic success of students in selected private and public basic schools in the Suame municipality of Ghana. The study was conducted using a sequential exploratory mixed methods design with phenomenology and descriptive survey as the main research methods. Data collection tools such as personal and FGD interviews, lesson observations, surveys, and academic performance evaluations aided in uncovering the nuanced insight of stakeholders in shedding light on the intricate dynamics of UDL adoption within the context of Creative Arts education in Ghana. The results showed that integration of UDL practices in Creative Arts education enhances inclusivity, engagement, and academic achievement among students with diverse learning needs. The study's novelty is evident in the deployment of the UDL principles in teaching and learning activities of Creative Arts that successfully catered to the individualized needs of students, promoted active participation, and created a more equitable and effective learning environment.



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## INTRODUCTION

Creative Arts education is deeply rooted in basic school curricula and has evolved into an essential aspect of student development (Smith, 2018). Recognizing its value in nurturing cognitive, emotional, and social dimensions, it has transitioned from a peripheral pursuit to an integral component in education (Jones & Brown, 2016). Creative Arts education initially appeared as an ancillary component, but as educational philosophies evolved, it gained prominence (Johnson, 2014). This shift reflects a deep understanding of the multifaceted benefits Creative Arts provide students, beyond just artistic skill acquisition. This shift highlights the importance of Creative Arts in the educational experience (Wesołowski, 2022). Creative Arts are crucial in fostering cognitive abilities, emotional intelligence, and social development, promoting a holistic approach to education (Jones & Brown, 2016). As educators recognize the importance of cultivating well-rounded individuals, they have placed Creative Arts at the core of basic education, promoting a holistic learning experience (Johnson, 2014). Creative Arts



education has evolved from a peripheral subject to a dynamic force that enhances students' cognitive, emotional, and social capacities, shaping them into individuals with enhanced educational journeys (Ruzany, 2023).

Traditional Creative Arts teaching methods are being scrutinized for their inability to cater to diverse student needs and abilities (Brown et al., 2021). This shift is not just theoretical but also a response to the changing composition of classrooms, where students come from diverse backgrounds and abilities (Rajasingham, 2011). Inclusivity is crucial in today's educational landscape, as one-size-fits-all approaches may exclude certain students or hinder their learning experience (Garcia and Martinez, 2018). Educators are seeking adaptive and inclusive instructional strategies to ensure every student, regardless of their individual learning profile, can actively engage and thrive in the educational journey (Adom, 2022). Recent developments in basic education are a paradigm shift towards a more flexible and inclusive educational environment (Jones and Lee, 2019). This is not just a trend but a response to the dynamic nature of today's classrooms, where diversity is celebrated and adaptable pedagogical strategies are paramount (Kang and Garran, 2018). Alternatives like the Universal Design for Learning (UDL) framework are emerging as potential solutions for this contemporary educational environment (Almumen, 2020). The Universal Design for Learning (UDL) framework is transforming the educational landscape by promoting inclusive and adaptable teaching methods (Rose and Meyer, 2002). It is rooted in universal design principles and serves as a pedagogical compass for educators (Luke, 2021).

According to CAST, (2018) emphasizes flexibility and diversity among learners, challenging traditional one-size-fits-all approaches. It acknowledges students' unique learning styles and abilities, and by integrating UDL principles into pedagogical practices, educators can create a dynamic, responsive learning environment that caters to each student's unique needs (Shapley, 2022). UDL is based on three principles: multiple means of representation, engagement, and expression (Rose & Meyer, 2002). These principles enable educators to design accessible and effective learning experiences for all students. Multiple means of representation accommodates diverse learning preferences, engagement taps into students' interests, and expression allows students to showcase their understanding in ways that align with their strengths (Thwin & Lwin, 2017). UDL in Creative Arts education challenges traditional methods of expression, ensuring every student can access, engage, and express themselves in Creative Arts activities (Kaur, 2022). UDL challenges this norm by encouraging educators to diversify instructional approaches and ensuring all students can effectively convey their understanding (Rose & Gravel, 2011).

Understanding Universal Design (UDL) is crucial for transforming Creative Arts education in basic schools. UDL offers a more inclusive, dynamic experience, addressing diverse student needs and capabilities. Incorporating UDL into Creative Arts instruction creates a more equitable and enriching educational environment, allowing every student to thrive. The academic discourse on Creative Arts education and the integration of Universal Design for Learning (UDL) principles has highlighted its transformative potential in promoting inclusivity and academic success, highlighting its potential to redefine conventional educational practices and enhance educational outcomes (Rose & Meyer, 2002). Research shows that Universal Design for Learning (UDL) offers numerous benefits in diverse educational settings, including improved student engagement, comprehension, and overall learning experiences (Tappenden, 2013). These findings emphasize the need for adaptable teaching methodologies in an era with diverse learner profiles (Basham, Blackorby & Stahl, 2017).

The study aimed to address the research gap in applying Universal Design for Learning (UDL) to enhance Creative Arts education in basic schools in Ghana. The specific implications of UDL for basic instruction have not been comprehensively addressed. The goal is to provide nuanced insights into UDL's application in Creative Arts (Glass et al., 2013). Though the potential of Universal Design for Learning (UDL) in democratizing education is highlighted in



recent studies in the Ghanaian context (Adom, 2022; Adom, 2023; Adom et al., 2024), there is a lack of research on its deployment in Creative Arts education, which has diverse modes of expression and interpretation, requiring a tailored investigation to optimize learning outcomes (Doran, 2015). The existing research on Universal Design for Learning (UDL) offers a solid foundation for understanding its impact, but it calls for further exploration in the field of Creative Arts education in basic schools. This study aims to provide valuable insights for pedagogical practices and policy considerations. The research objectives for the study were:

1. To examine the approaches in teaching Creative Arts in selected basic schools at Suame municipality.
2. To design Creative Arts lessons based on the principles of the UDL framework for teaching in selected basic schools at Suame municipality.
3. To assess the impact of the UDL Creative Arts lessons on the learning processes and learning outcomes of students in selected basic schools at Suame municipality.

### **Importance of Creative Arts Education**

Creative Arts education, encompassing visual arts, music, drama, and dance, is crucial in basic education for holistic development (Alfonso, 2018). It nurtures imagination, critical thinking, and emotional expression in young learners, allowing them to explore and communicate their unique perspectives, contributing significantly to their cognitive, social, and emotional growth (Eisner, 2002). The importance of Creative Arts education is underscored by its ability to cultivate skills that are not only valuable in artistic endeavors but also transferable to other academic domains (McNiff, 2016). Research by Winner and Hetland (2000) indicates that engagement in the arts enhances problem-solving abilities, creativity, and overall academic performance. In the basic school setting, Creative Arts act as a catalyst for the development of essential skills such as communication, collaboration, and perseverance. In light of the diverse benefits offered by Creative Arts education, understanding how to effectively teach these subjects becomes paramount. Traditional approaches may not sufficiently address the varied learning needs of students, leading to disparities in outcomes. This gap prompts exploration into innovative frameworks such as Universal Design for Learning (UDL) to optimize the teaching and learning experience in Creative Arts education (Tomlinson et al., 2017).

### **Principles and Components of Universal Design for Learning (UDL)**

Universal Design for Learning (UDL) is a framework that promotes inclusive education in Creative Arts by offering multiple representation, engagement, and expression methods. It acknowledges and accommodates diverse learning needs, ensuring all students can access and succeed in the educational process (CAST, 2018). The Center for Applied Special Technology (CAST) emphasizes the three primary principles of Universal Design for Learning (UDL): multiple means of representation, accommodating diverse learning styles, and incorporating visual aids, audio instructions, and hands-on activities (Rose & Meyer, 2002). These principles are particularly relevant in Creative Arts, where students may have varying strengths in visual, auditory, or kinesthetic learning. The principle of multiple means of engagement in Creative Arts education emphasizes the significance of diverse approaches to motivate and sustain student interest. This approach allows students to choose projects that align with their interests or incorporate real-world examples (Testa & Egan, 2013). The principle of multiple means of expression acknowledges students' diverse ways of expressing their understanding and mastery of content, such as visual art, music, drama, or dance, allowing each student to showcase their unique strengths (Kimani, 2022). UDL in Creative Arts education is a multifaceted approach that requires careful consideration of the discipline's unique characteristics and diverse student learning profiles (Poole & Li, 2023). By incorporating UDL principles, educators can create an inclusive and effective learning environment that respects students' diverse strengths and abilities (Chimicz, 2020).

### **Integration of UDL in Creative Arts Education**

The integration of Universal Design for Learning (UDL) principles into the realm of Creative Arts education marks a transformative approach that acknowledges and addresses the diverse needs of students. Creative Arts, encompassing visual arts, music, drama, and dance, present unique challenges and opportunities for inclusive teaching. Integrating UDL into Creative Arts education involves a thoughtful application of its principles to enhance the accessibility and effectiveness of instruction (Iza, 2023). The principle of multiple means of engagement is crucial in Creative Arts, where students' motivation and interest are crucial. By allowing students to choose projects that align with their interests and connecting artistic concepts to real-world examples, they can foster engagement and social interaction (Burgstahler, 2015). In performing arts, such as music and drama, educators can provide diverse expression options, such as script writing, visual storyboard creation, or acting out scenes, catering to individual strengths (Kearney, 2011).

The integration of UDL in Creative Arts education extends beyond the classroom environment. Accessibility of instructional materials is a crucial component in ensuring equitable learning experiences (Deng, 2022). Providing alternative formats for instructions, such as written, verbal, or visual, ensures that students can access information in ways that suit their preferences and needs. Moreover, leveraging technology, such as providing audio descriptions for visual elements or utilizing captioning for video content, contributes to a more inclusive learning environment (Burgstahler, 2015). By implementing UDL principles, educators can create an inclusive and accessible learning environment that celebrates the richness of creativity and accommodates the varied needs of all students (Fovet, 2020).

### **Constructivism and UDL: A Theoretical Alignment**

Constructivism, as a foundational educational theory, emphasizes the active role of learners in constructing knowledge through their experiences and interactions. When examining the theoretical underpinnings of Universal Design for Learning (UDL), a natural alignment with constructivist principles emerges. The synergy between constructivism and UDL lies in their shared commitment to recognizing and accommodating the diverse needs, backgrounds, and learning styles of students. Constructivism posits that learning is a process of meaning-making, where students actively build their understanding by connecting new information to existing knowledge (Vygotsky, 1978). This aligns seamlessly with UDL's principle of multiple means of representation, which acknowledges that learners benefit from diverse modes of information delivery. By offering content in various formats—visual, auditory, kinesthetic—UDL supports the constructivist notion that learners construct meaning through engagement with multiple perspectives (Purbaningrum & Setyaningrum, 2023).

The Universal Design for Learning (UDL) principle emphasizes multiple means of engagement, aligning with constructivist theory (Piaget, 1973). It emphasizes intrinsic motivation and active engagement in the learning process, offering students choices and real-world contexts. UDL promotes intrinsic motivation by emphasizing the relevance of learning to students' lives (CAST, 2018). The Universal Design for Learning (UDL) principle emphasizes the importance of multiple means of expression for students to demonstrate their understanding (Brooks & Brooks, 1993). Constructivist theories highlight the need for assessment based on students' ability to express their knowledge in various formats, allowing them to choose the best format (Whaley & Grice, 2007).

Educators who use both constructivist and Universal Design (UDL) principles recognize learning as a dynamic, individualized process (Melhem & Al-Rashid, 2023). They design experiences that honor students' prior knowledge, encourage active participation, and provide various expression methods. Creative Arts education leverages this alignment, promoting hands-on, experiential learning and flexibility (Telussa & Rahayu, 2018). The theoretical alignment between constructivism and UDL highlights the shared commitment to student-

centered, flexible, and inclusive education. By weaving these theories together, educators can create learning environments that foster active engagement, meaningful construction of knowledge, and varied expressions of understanding.

### **Multiple Intelligences Theory and UDL in Creative Arts**

Howard Gardner's Multiple Intelligences theory suggests that individuals have diverse cognitive abilities, each representing different intelligences. This theory aligns with Universal Design for Learning principles, offering a nuanced approach for Creative Arts education. By understanding the intersection of MI and UDL, educators can cater to diverse student engagement and expression in the arts (Hu, 2023). Gardner's Multiple Intelligences Theory identifies various intelligences, each representing a unique way individuals excel and comprehend information (Gardner, 1983). In the teaching of Creative Arts, UDL's principle of multiple means of representation aligns with Gardner's theory, recognizing the importance of presenting content in various formats to cater to different intelligences, such as visual aids or music (CAST, 2018). The Universal Design for Learning (UDL) principle acknowledges that students are motivated through various pathways, such as bodily-kinesthetic or interpersonal intelligence (Indriyani et al., 2019). UDL offers diverse approaches to engage with content, supporting the diverse motivational factors associated with different intelligences (Rose & Meyer, 2002).

Gardner's theory aligns with the principle of multiple means of expression in Universal Design for Learning (UDL), promoting inclusivity and effectiveness by allowing students to express their understanding in ways that align with their dominant intelligences (CAST, 2018). The integration of Multiple Intelligences Theory and Universal Design for Learning (UDL) in Creative Arts education fosters inclusivity and appreciation for diverse talents, allowing students to express themselves authentically and utilize their individual intelligences for effective learning experiences (Kopytin, 2018).

### **Socio-Cultural Theories Supporting UDL Implementation**

Socio-cultural theories, influenced by Lev Vygotsky, emphasize social interactions and cultural contexts in education. These theories, backed by Universal Design for Learning, can be applied to Creative Arts education to foster inclusive and collaborative learning environments. Lev Vygotsky's socio-cultural theory suggests that learning is influenced by cultural interactions, aligning with Universal Design for Learning (UDL)'s emphasis on social engagement (Vygotsky, 1978). In Creative Arts, fostering collaboration and peer interactions is crucial, as group projects and shared experiences align with socio-cultural theories and UDL principles (Bradfield, 2021). Socio-cultural theories emphasize the significance of diverse cultural perspectives in the learning process, particularly in the teaching of Creative Arts. By incorporating cultural elements, students can see themselves and their experiences in the curriculum, enhancing accessibility and creating a more inclusive learning environment (Guberina, 2023).

UDL in Creative Arts education emphasizes collaborative learning, cultural responsiveness, and diverse expression (Mackney & Young, 2021). Acknowledging and valuing students' cultural backgrounds enriches the educational experience and aligns with UDL principles, promoting accessibility and inclusivity for all learners, as noted by (Al-Jabir, 2023). Socio-cultural theories and Universal Design for Learning (UDL) emphasize social interactions, cultural responsiveness, and diverse expression in Creative Arts teaching, promoting inclusive, collaborative, and meaningful learning experiences for students (Meishar-Tal & Kesler, 2021).

### **Impacts of UDL on Teaching Practices in Creative Arts**

Studies on the impact of Universal Design for Learning (UDL) on Creative Arts teaching practices offer valuable insights into its effectiveness, focusing on its influence on instructional

strategies, student engagement, and overall teaching outcomes (Glass et al., 2013). Smith and Okolo's (2010) study on the impact of Universal Design (UDL) on visual arts education found that UDL principles improved teacher practices and student engagement, leading to increased flexibility in accommodating diverse learning styles and increased participation and enthusiasm for artistic expression. Anderson and Granger's (2013) study on UDL in music education found that it positively influenced teaching practices by promoting differentiated instruction, increased adaptability, and enhanced musical understanding, leading to improved performance outcomes in a middle school music program (Anderson & Granger, 2013).

Chen and Bass' (2018) study on drama education found that Universal Design for Learning (UDL) principles improved inclusivity, student-centeredness, and creative expression. Teachers reported greater satisfaction with meeting diverse student needs, leading to increased confidence and creative expression. This study highlights the importance of UDL in drama education (Chen & Bass, 2018).

### **Student Engagement and UDL in Creative Arts Education**

Studies on the impact of Universal Design for Learning (UDL) on student engagement in Creative Arts education reveal its effectiveness in promoting active participation, motivation, and overall classroom experiences, as per (Glass et al., 2013). Dalton and Smith's (2011) study on Universal Design for Learning (UDL) in high school drama classes found that integrating UDL principles increased student participation and enthusiasm, fostering creativity and collaboration. The flexibility of UDL allowed for a more inclusive learning environment (Dalton and Smith, 2011). Jackson and Buchanan's (2019) study on middle school music education found that Universal Design (UDL) strategies, including varied instructional methods and flexible assessments, positively influenced student engagement by accommodating diverse learning preferences, increasing interest and motivation, and boosting participation and confidence among learners. A study by Blackorby, Quatroche, and Wagner (2014) examined the impact of Universal Design (UDL) on student engagement in visual arts education. The research found that UDL improved engagement by addressing individual learning needs and preferences, creating a positive, supportive learning environment that fostered active participation and belonging among students. The empirical studies reviewed show a positive correlation between UDL implementation and increased student engagement in Creative Arts education, as UDL principles foster a more participatory, motivating learning environment (Agustin & Nalim, 2021).

### **Learning Outcomes: Effectiveness of UDL in Creative Arts**

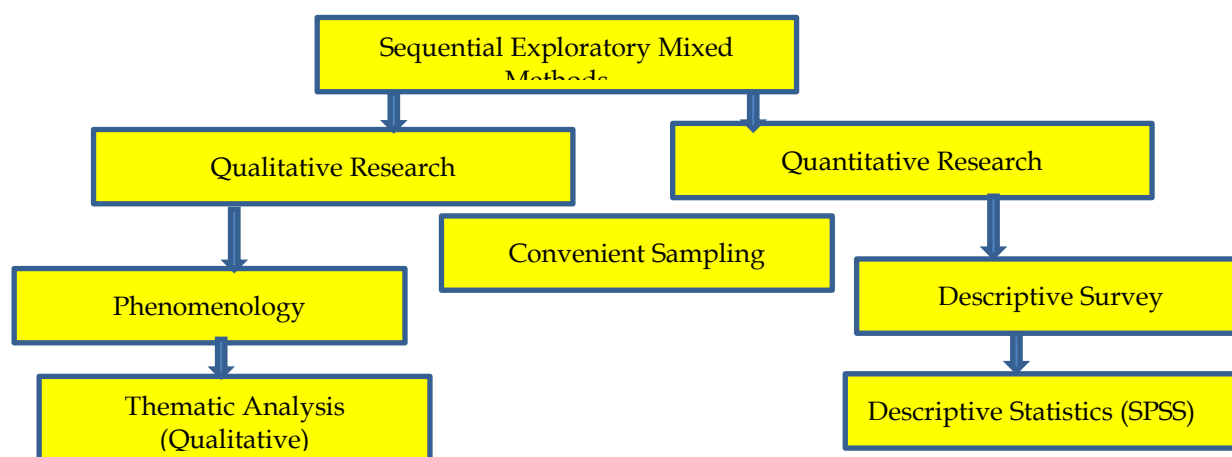
Empirical studies investigating the impact of Universal Design for Learning (UDL) on learning outcomes in Creative Arts education provide crucial insights into the effectiveness of UDL principles in shaping students' academic achievements, skill development, and overall learning experiences in the arts. The study by Rose, Meyer, and Hitchcock (2005) examined the effectiveness of Universal Design for Learning (UDL) in visual arts education. It found that UDL implementation improved students' mastery of artistic concepts and creative expression, resulting in a more equitable learning environment and enhanced learning outcomes for all students (Rose et al., 2005). According to Tindal-Ford et al. (2015) study on the impact of Universal Design for Learning (UDL) on high school music programs found that UDL positively influenced students' musical understanding and skill development, and even students with diverse learning needs showed comparable achievement levels, highlighting its inclusivity and effectiveness in promoting equitable learning outcomes. These empirical studies collectively highlight the positive influence of UDL on learning outcomes in Creative Arts education. The flexibility, inclusivity, and adaptability offered by UDL principles contribute to enhanced academic achievement, skill development, and overall learning success in the Creative Arts.



## RESEARCH METHOD

This study used a sequential exploratory mixed methods design in garnering qualitative and quantitative data sets to holistically understand (Creswell & Creswell, 2017) the significance of the UDL framework in the teaching and learning of Creative Arts. Phenomenology, as a qualitative design, facilitated an in-depth exploration of the subjective experiences, perceptions, and perspectives of teachers and students regarding the implementation of UDL principles in creative arts education. Through interviews and observations, researchers uncovered the nuanced insights and lived realities of stakeholders, shedding light on the intricate dynamics of UDL adoption within the educational context. On the other hand, the descriptive survey method offered a quantitative lens to systematically assess the prevalence and efficacy of UDL practices in enhancing student learning outcomes and academic achievement. Surveys and academic performance evaluations were tools for gathering numerical data in analyzing the correlations between UDL implementation and students' academic performance across diverse school settings. Triangulating qualitative narratives with quantitative data enhanced the validity and reliability of the findings, fostering a more holistic understanding of the multifaceted phenomenon under investigation (Creswell & Plano Clark, 2011). Moreover, the integration of qualitative and quantitative approaches validates the study's results across multiple dimensions, amplifying the credibility and robustness of the study's conclusions (Teddlie & Tashakkori, 2009).

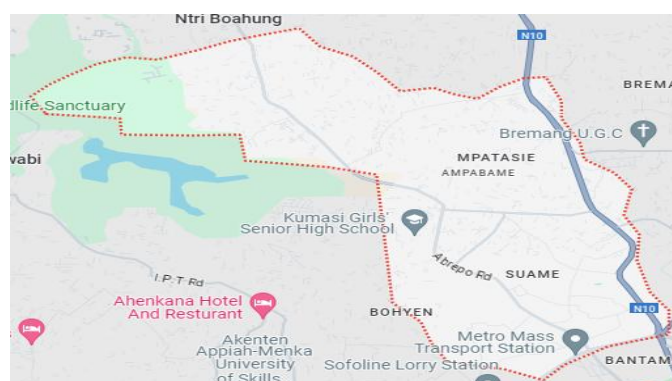
Convenient sampling was used in selecting thirty students (fifteen each) from one private basic school and one public basic school. A total of ten teachers (five from each school) and four school administrators (two from each school) were involved in the study. The qualitative data were analyzed using the thematic qualitative analysis. It involved the systematic identification of recurring themes, patterns, and underlying meanings relevant to the implementation of Universal Design for Learning (UDL) in Creative Arts education. Concurrently, the quantitative data were subjected to descriptive statistics using SPSS (Statistical Package for the Social Sciences) software.



**Figure 1.** Flowchart of Research Methodology for the Study

## Study Area

The study was conducted in the Suame Municipality, Ashanti Region, Ghana. This municipality represents a diverse urban area within the Ashanti Region, which is conducive to capturing a wide range of perspectives and experiences regarding the implementation of Universal Design for Learning (UDL) in Creative Arts education. As a sub-metropolitan district council within the Kumasi Metropolitan Assembly until its elevation to municipal district assembly status in 2018, Suame Municipality is characterized by a mix of urban and suburban communities, offering a varied socio-economic and cultural landscape (Ghana Statistical Service, 2014).



**Figure 2:** Map of Suame Municipality, Ashanti Region, Ghana

## RESULTS AND DISCUSSION

### Results

The results of this study were divided into four expertise fields, i.e (1) Demographic data, (2) Teaching approaches in Creative Arts, (3) Analysis of Pedagogical Strategies for Creative Arts Education, (4) The design and implementation of Creative Arts lessons structured according to the three principles of the Universal Design for Learning (UDL) framework, and (5) Thematic analysis of the implementation of UDL in the Creative Art

#### (1) Demographic Data

The demographic data highlights a well-balanced sample in terms of gender, age, and school type, providing a robust foundation for examining the current teaching approaches in Creative Arts and the implementation of UDL-based lessons within the Suame Municipality (See Table 1).

**Table 1.** Demographic Data of Basic Six Learners in the Schools

| Demographics | Responses         | F  | %      |
|--------------|-------------------|----|--------|
| Gender       | Male              | 16 | 53.33% |
|              | Female            | 14 | 46.67% |
| Age          | 11 or below       | 6  | 20.00% |
|              | 12 to 13          | 21 | 70.00% |
|              | 14 year and above | 3  | 10.00% |
| School       | Public school 1   | 15 | 50.00% |
|              | Private School 2  | 15 | 50.00% |

#### (2) Teaching Approaches in Creative Arts

The results regarding the current approaches utilized in teaching Creative Arts within the selected basic schools in Ghana are presented in this section. Analysis encompasses the pedagogical strategies, instructional materials, and overall methods employed in Creative Arts education.

##### *Analysis of Pedagogical Strategies for Creative Arts Education*

School A and School B exhibit stark differences in teaching methodologies, highlighting the impact of different approaches on student engagement and learning. School A's lecture-based approach, requiring students to listen and take notes, creates a passive learning environment,

while a learner confirm lacks group work and discussions. Lecture-based instruction, while effective in covering extensive material, often hinders student engagement and interaction. It places the teacher at the center, leaving students passive recipients of information. The absence of interactive elements can hinder critical thinking skills development.

School B's pedagogy emphasizes student-centered learning through projects and group work. Teachers emphasize the importance of collaborative projects for critical thinking and understanding, while learners appreciate the engaging nature of these activities and their potential to enhance interpersonal skills. School A's lecture-based approach creates a passive learning environment, while school B encourages active participation, critical thinking, and collaborative learning, thereby enhancing student motivation and overall educational outcomes, making it a valuable approach for modern education.

#### *Analysis of Instructional Materials in Schools A and B*

Instructional materials significantly influence students' educational experiences, affecting their engagement, comprehension, and overall learning outcomes. The study compares School A and School B's instructional materials, revealing significant differences in their types and usage, highlighting the impact of these choices on student learning outcomes. School A primarily uses textbooks and printed worksheets as instructional materials. This structured syllabus ensures comprehensive coverage of the curriculum, with worksheets derived from textbooks, ensuring consistent topic addresses. However, School A's traditional instructional materials may limit students' diversity of learning experiences due to their static nature, which may limit exposure to contemporary issues and innovative thinking, essential for developing critical thinking skills and adapting to new challenges. School B uses digital resources like e-books and online tools to enhance learning, making it more engaging and interactive, as highlighted by teachers 4 and learners 6.

Digital tools in School B enhance student engagement by transforming static content into dynamic and interactive experiences through interactive e-books, educational software, and online tools. Digital resources, including multimedia elements like videos, animations, and interactive simulations, can enhance learning for students with diverse preferences. Teachers can customize these resources to meet students' needs, resulting in a personalized, deeper understanding and meaningful engagement with the subject matter. The study compared the instructional materials in Schools A and B, revealing that School A's traditional textbooks may limit learning diversity, while School B's digital resources create a more interactive, personalized environment. This shift in resources enhances student engagement, promotes digital literacy, and creates a more inclusive and effective educational experience.

#### *Analysis of Teaching Methods in Schools A and B*

School A's teaching methods are primarily traditional and teacher-centered, with content delivered directly to students who are expected to listen and take notes. Learner 7 notes that the teacher often does most of the talking, leaving little room for student interaction (Personal communication, January 23, 2024). The method of direct instruction, which focuses on information dissemination rather than active participation, may hinder critical thinking, problem-solving, and collaborative learning. This lack of interaction can also hinder the development of communication skills and teamwork abilities. School B uses a progressive, student-centered approach, focusing on student-led activities and projects. Teacher 6 emphasizes this, allowing students to take ownership of their learning. Learner 8 believes that engaging in activities independently or in groups enhances their learning experience (Personal communication, January 26, 2024).

Schools A and B's teaching methods emphasize the impact of pedagogical approaches on student engagement and learning outcomes, while School B's student-centered approach promotes a dynamic, interactive learning environment. School B's implementation of student-

centered teaching methods necessitates a shift in the teacher's role from knowledge provider to learning facilitator. Despite potential challenges like professional development and classroom dynamics, the benefits of increased student engagement, motivation, and critical thinking development make this a worthwhile endeavor. School B's student-centered approach aligns with constructivism, a contemporary educational theory that emphasizes active engagement with material and practical application of knowledge. This approach creates an engaging and effective learning environment by incorporating meaningful activities. The study compares teaching methods in Schools A and B, highlighting the role of pedagogical strategies in shaping the learning experience. School A's traditional methods may limit student engagement, while School B's student-led approach promotes active learning, critical thinking, and soft skills development. Transitioning to student-centered methods can enhance the overall educational experience.

#### *Analysis of Assessment Techniques in Schools A and B*

School A uses traditional assessment techniques, primarily written tests and quizzes, Teacher 7 emphasizes that these methods are deemed effective for evaluating students' understanding and knowledge retention. Learner 9 supports this approach, stating that it primarily focuses on memorization and writing answers (Personal communication, January 28, 2024). Traditional assessment methods like written tests and quizzes provide quick evaluations of students' understanding of factual information, curriculum coverage, and academic performance metrics. They are easy to administer and grade, but they primarily focus on lower-order thinking skills like recall and comprehension, potentially overlooking higher-order cognitive abilities like analysis, synthesis, and application.

School B uses progressive assessment techniques like portfolio assessments and peer reviews. Teacher 8 allowing students to reflect on their learning and receive feedback from peers. This approach fosters a comprehensive understanding of academic progress, praised by Learner 10 for its opportunity for self-reflection (Personal communication, January 30, 2024). The study compares assessment techniques in Schools A and B, highlighting the impact of assessment strategies students leaning outcome. School A's traditional summative assessments on student learning and development, while formative assessments like portfolios and peer reviews promote a more comprehensive and reflective approach, highlighting the importance of assessment strategies in student development. The implementation of formative assessment techniques like Portfolio assessments in School B necessitates a shift in educational practices, including teacher training and student guidance in self-reflection and peer evaluation. However, the benefits of increased student engagement, motivation, and critical thinking skills make this transition worthwhile.

The study compares assessment techniques in Schools A and B, emphasizing the need for diverse and progressive strategies. Traditional assessments in School A may hinder deeper engagement and critical thinking, while formative assessments in School B encourage continuous improvement and higher-order thinking skills. This approach creates a dynamic learning environment better preparing students for academic and real-world challenges.

#### *Analysis of Classroom Environment in Schools A and B*

School A's classroom environment is structured and formal and according to Teacher 9 a strict timetable and fixed seating arrangement to create an orderly learning atmosphere. This sentiment is echoed by Learner 11, who describes the classroom as very formal, with students seated in rows and following a daily schedule (Personal communication, February 1, 2024). School B provides a flexible classroom environment that encourages dynamic learning through rearranging seating and modifying layouts as stated by teacher 10. This allows teachers to create spaces suitable for various activities like group work, discussions, and hands-on projects.

Learner 12 appreciates this adaptable setup, stating it creates a more open and comfortable atmosphere, enhancing the learning experience (Personal communication, February 1, 2024).

The classroom environments in Schools A and B differ significantly, with School A offering stability but potentially limiting student engagement and creativity, and School B's flexible environment promoting an interactive, student-centered approach, fostering cognitive and social skills. The study reveals that classroom environments in Schools A and B significantly impact educational outcomes. School A's structured environment offers stability but can limit creativity and active learning, while School B's flexible environment fosters a dynamic and engaging diverse learning styles.

#### *Analysis of Teacher Training in Schools A and B*

School A's teacher training is primarily general education, with little emphasis on specialized skills. Teacher 11 and Learner 13 both note that most professional development is in general teacher education, with traditional teaching methods being the primary focus (Personal communication, February 5, 2024). The general education approach in School A may not adequately address modern classroom needs due to a lack of specialized training. Teachers may struggle to implement innovative teaching practices, limiting opportunities for critical thinking and creativity. Traditional methods, like lecture-based instruction, may dominate the classroom. School B invests in specialized training, especially in Creative Arts, to improve its educators' teaching skills. Teacher 12 and learner 14 appreciate the training's ability to incorporate creative methods into teaching practices, highlighting the importance of such training in their teaching practices (Personal communication, February 7, 2024). Specialized training in School B equips teachers with innovative teaching methods, such as multimedia resources, project-based learning, and collaborative activities. This approach fosters a dynamic learning environment, encouraging critical thinking and creative expression. Teachers trained in these methods are better equipped to differentiate instruction and meet diverse student needs, enhancing their overall teaching effectiveness.

The study compares teacher training approaches in Schools A and B, highlighting the importance of professional development in improving teaching quality and educational outcomes. School A's reliance on general education lacks specialized skills for modern teaching, potentially limiting student engagement and catering to diverse learning needs. School B's focus on specialized training in Creative Arts fosters a dynamic, student-centered learning environment. This approach enhances teaching quality and prepares students for the 21st century challenges. The analysis of teacher training in Schools A and B highlights the significance of professional development in improving educational outcomes.

#### *Analysis of Student Engagement in Schools A and B*

In School A, student engagement is characterized by a passive approach. Teacher 13 observes that students primarily listen to lectures and take notes during lessons, with minimal interaction or participation (Personal communication, February 8, 2024). This method is confirmed by Learner 15, who describes the classroom experience as largely non-interactive, with limited opportunities for students to engage actively with the material or with each other (Personal communication, February 9, 2024). School B promotes active participation and creativity through discussions, activities, and student involvement. Teacher 14 emphasizes this approach, while learner 16 praises the constant engagement and creative opportunities provided in the classroom (Personal communication, February 11, 2024).

School B's active engagement approach promotes a dynamic and stimulating learning environment by involving students in discussions, project collaboration, and hands-on activities. This approach enhances motivation, enthusiasm, and deeper learning by encouraging critical thinking, questioning, and knowledge application in various contexts. School B students benefit from increased collaborative work, communication, and problem-solving activities,

enhancing their understanding, confidence, teamwork skills, and independent thinking. The creative learning process allows students to explore their interests and express themselves, providing a personalized and meaningful educational experience.

The contrast between School A's passive learning environment and School B's active, participatory approach highlights the importance of teaching strategies in student engagement. School A's structured approach may result in disengagement, lower information retention, and limited development of critical thinking and social skills. On the other hand, School B's approach demonstrates the benefits of active engagement and creativity in the classroom. By involving students in the learning process and encouraging them to participate actively, School B creates a more dynamic and motivating environment. This not only enhances students' understanding and retention of the material but also supports the development of important skills such as critical thinking, communication, and collaboration. The study highlights the significance of active participation and creativity in fostering student engagement in Schools A and B, contrasting passive learning methods with their inability to promote deeper learning.

#### *Analysis of Frequency of Arts Activities in Schools A and B*

School A integrates arts activities into its curriculum, but they are not frequently used. Teacher 15 mentions that art classes are once a week, while Learner 17 reports less frequent art classes. This suggests that arts education may not receive enough attention within the school's academic structure (Personal communication, February 13, 2024). The infrequent arts activities in School A may hinder students' creative development, limiting their imagination, innovation, and self-expression. This lack of exposure to arts education can result in missed cognitive and emotional benefits, affecting their overall educational experience.

Arts activities often serve as a means for students to connect with their cultural heritage, express their emotions, and develop a sense of identity. Conversely, School B takes a more integrated approach to arts education, embedding arts activities into daily lessons and activities. Teacher 16 emphasizes that arts are integrated into daily activities, highlighting that it is not just a separate class but a consistent part of their learning process (Personal communication, February 14, 2024). Learner 18 corroborates this, stating that they engage in something related to art every day (Personal communication, February 15, 2024). This approach reflects a commitment to fostering creativity and artistic expression as integral components of the school's educational philosophy. School B's daily arts integration promotes holistic development by exposing students to diverse artistic mediums, techniques, and concepts. This hands-on experience fosters creativity and innovation, and creates a rich learning environment where students can apply artistic skills across various subjects, fostering interdisciplinary connections and deeper understanding.

The study compares School A and School B's arts education approaches, emphasizing the importance of frequency and integration. School A offers weekly classes, while School B provides daily integration, enhancing artistic skills, creativity, cognitive, emotional, and social development. The integration of arts into educational policy and practice is crucial for cultivating well-rounded individuals with the necessary skills for success in the 21st-century workforce. The study reveals that the arts activities in Schools A and B are crucial for promoting arts education. School A offers weekly arts classes, while School B offers daily integration, enhancing students' artistic skills, critical thinking, and emotional well-being, thereby supporting overall development.

#### *Analysis of Use of Technology in Schools A and B*

In School A, the use of technology is limited, as noted by Teacher 17, who mentions that computers are occasionally used for specific tasks (Personal communication, February 16, 2024). Learner 19 corroborates this by stating that computers are not used frequently and are mainly reserved for certain projects (Personal communication, February 17, 2024). This approach

indicates a more traditional approach to technology integration, where its use is sporadic and not fully integrated into daily teaching practices. School A's limited technology use may hinder students' learning experiences, limiting exposure to digital tools and resources, and hindering the development of 21st-century skills like digital literacy, critical thinking, and problem-solving. In today's digitally driven world, proficiency in technology is crucial for academic success and future career opportunities. Schools not prioritizing regular technology use may disadvantage students.

School B is implementing a proactive approach to technology integration, utilizing multimedia and tech tools in daily lessons. Teacher 18 and Learner 20 appreciate this approach, highlighting its ability to enhance teaching and learning practices, demonstrating a commitment to technology use (Personal communication, February 18, 2024). School B's extensive use of technology enhances students' educational experiences by providing access to digital resources, multimedia content, and interactive tools. This facilitates personalized learning, allowing students to explore diverse perspectives and collaborate with peers. This inclusive environment fosters critical thinking skills and digital literacy competencies, essential for future success.

The study compares the use of technology in Schools A and B, highlighting the significant impact it has on students' learning experiences. School A's limited use of technology doesn't fully utilize its potential, while School B's extensive use creates a dynamic, interactive environment, promoting personalized learning and 21st-century skills development. These approaches influence students' preparedness for future academic and career pursuits.

#### *Analysis of Extracurricular Opportunities in Schools A and B*

In School A, extracurricular activities are perceived as limited, as highlighted by Teacher 19 who states, "Extracurricular activities are limited. There are not many options for students" (Personal communication, February 20, 2024). Learner 21 echoes this sentiment, noting, "We don't have many clubs or after-school programs. It's mostly just regular classes" (Personal communication, February 21, 2024). This indicates a lack of diverse extracurricular options beyond the standard academic curriculum. School A's limited extracurricular activities may hinder students' personal development and overall school experience. These activities, such as clubs, sports teams, and special interest groups, promote social interaction, teamwork, leadership skills, and personal growth. Therefore, limiting these opportunities may hinder students' development beyond the classroom. School B provides a diverse range of extracurricular opportunities, including clubs and after-school programs, which encourage students to explore different interests and enrich their educational experiences. This proactive approach to extracurricular programming enhances students' personal growth and enhances their overall learning experience (Personal communication, February 23, 2024).

School B offers diverse extracurricular opportunities, fostering a supportive and inclusive environment for students to explore various interests and hobbies. Through arts, sports, academic clubs, and community service initiatives, students develop skills, pursue passions, and build relationships, enhancing their overall well-being and contributing to a positive school climate. The study compares School A and School B's extracurricular programs, highlighting the importance of comprehensive programs for students' personal and academic growth. School A's limited options limit students' exploration of interests and non-academic skills, while School B's diverse options promote holistic growth, increased motivation, and a broader skill range.

### **(3) The design and implementation of Creative Arts lessons structured according to the three principles of the Universal Design for Learning (UDL) framework**

Lessons were tailored to accommodate diverse learner needs through multiple means of representation, engagement, and expression.

**Table 3.** Lesson plan

|                                    |                                                                                                                                               |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Week Ending</b>                 | <b>[15th January 2023]</b>                                                                                                                    |
| <b>Class</b>                       | Basic Six                                                                                                                                     |
| <b>Subject</b>                     | Creative Arts                                                                                                                                 |
| <b>Reference</b>                   | Creative Arts curriculum Page                                                                                                                 |
| <b>Learning Indicator(s)</b>       | B6.1.2.2.3, B6.1.2.3.3                                                                                                                        |
| <b>Performance Indicator</b>       | Learners can create their own symbolic visual artworks that communicate, educate, or sensitize the public on some topical issues in the world |
| <b>Strand</b>                      | Visual Arts                                                                                                                                   |
| <b>Sub strand</b>                  | Planning, Making, and Composing                                                                                                               |
| <b>Teaching/Learning Resources</b> | Photos, videos, art paper, colors, traditional art tools, other materials available in the community                                          |
| <b>Core Competencies</b>           | Decision Making, Creativity, Innovation, Communication, Collaboration, Digital Literacy                                                       |

| <b>Time</b> | <b>Activity</b>                                                                                           | <b>UDL Principles</b>                                                          | <b>Teaching/Learning Resources</b>                                                   |
|-------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 10 mins     | Introduction to Lesson: Discuss the importance of art in communicating messages.                          | <b>Engagement:</b> Provide options for recruiting interest                     | Teacher-led discussion, engaging questions, multimedia (photos, videos)              |
| 15 mins     | Presentation: Show examples of symbolic visual artworks addressing global issues.                         | <b>Representation:</b> Provide multiple means of representation                | Photos, videos showcasing symbolic artworks, diverse cultural perspectives           |
| 20 mins     | Brainstorming Session: Students discuss and choose a topical issue to address through their artwork.      | <b>Action and Expression:</b> Provide options for expression and communication | Art paper, colors, traditional art tools for sketching/drawing, group discussion     |
| 10 mins     | Break                                                                                                     | <b>Engagement:</b> Optimize individual choice and autonomy                     | Rest, snacks, movement options                                                       |
| 30 mins     | Creative Project: Students create their symbolic visual artworks.                                         | <b>Action and Expression:</b> Provide options for physical action              | Art supplies (paper, colors), choice of artistic medium (painting, drawing, collage) |
| 15 mins     | Sharing and Reflection: Students present their artworks and explain the messages they aim to communicate. | <b>Representation:</b> Offer alternatives for comprehension                    | Peer feedback, group discussion, digital portfolio for sharing work                  |

**Table 4.** UDL-based creative arts lessons during the intervention

| <b>UDL Principle</b>                    | <b>Control Group (School A)</b>    | <b>Experimental Group (School B)</b>             |
|-----------------------------------------|------------------------------------|--------------------------------------------------|
| <b>Multiple Means of Representation</b> | Traditional lectures and textbooks | Visual aids, videos, and interactive whiteboards |



| UDL Principle                       | Control Group (School A)       | Experimental Group (School B)                                                  |
|-------------------------------------|--------------------------------|--------------------------------------------------------------------------------|
| <b>Multiple Means of Engagement</b> | Standard classroom discussions | Group projects, hands-on activities, and games                                 |
| <b>Multiple Means of Expression</b> | Written assignments and tests  | Art projects, presentations, and digital portfolios                            |
| <b>Lesson Structure</b>             | Fixed and uniform              | Flexible and adaptable                                                         |
| <b>Accessibility</b>                | Limited accommodations         | Inclusive materials for diverse learning needs                                 |
| <b>Student Choice and Autonomy</b>  | Teacher-directed activities    | Student choice in projects and learning activities                             |
| <b>Feedback Methods</b>             | Standardized grading           | Individualized feedback and peer reviews                                       |
| <b>Use of Technology</b>            | Minimal use of digital tools   | Integration of tablets, computers, and creative software                       |
| <b>Support Services</b>             | General classroom support      | Specialized support and resources for diverse learners                         |
| <b>Assessment Strategies</b>        | Traditional testing methods    | Varied assessment methods including formative assessments and self-reflections |

#### (4) The impacts of UDL-designed Creative Arts lessons on student learning processes and outcomes

**Table 5.** Group Statistics

| Group        | N  | Mean    | Std. Deviation | Std. Error means |
|--------------|----|---------|----------------|------------------|
| Score        |    |         |                |                  |
| Control      | 15 | 89.7500 | 3.29074        | .73583           |
| Experimental | 15 | 93.8500 | 3.54334        | .79232           |

Table 5 reveals performance differences between control and experimental groups in a study. The control group scored 89.75, with a standard deviation of 3.29 and a standard error of 0.74, while the experimental group scored 93.85, slightly higher with a standard deviation of 3.54. The experimental group showed higher mean scores on assessments, indicating that students exposed to UDL-based Creative Arts lessons performed better than the control group, indicating a positive impact on student learning outcomes in Creative Arts education. The experimental group showed slightly higher standard deviations in student performance compared to the control group, possibly due to diverse learning needs and responses to the intervention, despite both groups having low standard deviations.

The intervention in Creative Arts education significantly improved student learning outcomes, with a higher mean score in the experimental group compared to the control group, emphasizing the need for innovative and inclusive teaching approaches based on Universal Design for Learning principles.

**Table 6.** Independent Samples Test

|       |                             | Levene's Test for Equality of Variances |      | t-test for Equality of Means |        |                 |                 |                       |                                           |          |
|-------|-----------------------------|-----------------------------------------|------|------------------------------|--------|-----------------|-----------------|-----------------------|-------------------------------------------|----------|
|       |                             | F                                       | Sig. | t                            | Df     | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |          |
|       |                             |                                         |      |                              |        |                 |                 |                       | Lower                                     | Upper    |
| Score | Equal variances assumed     | .643                                    | .428 | -3.792                       | 38     | .001            | -4.10000        | 1.08130               | -6.28898                                  | -1.91102 |
|       | Equal variances not assumed |                                         |      | -3.792                       | 37.794 | .001            | -4.10000        | 1.08130               | -6.28937                                  | -1.91063 |

The Independent Samples Test conducted in Table 6 evaluates the significance of differences in mean scores between the control and experimental groups in the study. Levene's Test for Equality of Variances assesses whether the assumption of equal variances in the two groups is met. In this case, for the SCORE variable, the p-value associated with Levene's Test is 0.428 when equal variances are assumed, indicating that the assumption of equal variances is not violated ( $p > 0.05$ ), meaning the variances of the two groups are statistically similar.

The t-test for Equality of Means examines whether the mean scores of the two groups are significantly different. When equal variances are assumed, the t-value is -3.792 with a significance level of 0.001 ( $p < 0.05$ ), indicating a statistically significant difference in mean scores between the control and experimental groups. The mean difference between the groups is -4.10000, suggesting that, on average, the experimental group scored 4.1 points higher than the control group. Similarly, when equal variances are not assumed, the results remain consistent, with a t-value of -3.792 and a significance level of 0.001 ( $p < 0.05$ ), indicating a significant difference in mean scores between the two groups. The mean difference and confidence intervals also align with those obtained when equal variances were assumed.

Overall, the results of the Independent Samples Test provide evidence that the intervention, likely UDL-based Creative Arts lessons, had a significant positive impact on student learning outcomes in Creative Arts education, as reflected in the higher mean scores of the experimental group compared to the control group. These findings support the effectiveness of innovative and inclusive teaching approaches in enhancing student engagement, participation, and achievement in Creative Arts education.

## Discussion

It was revealed via the results that the basic schools in the study area used a combination of traditional and innovative teaching approaches for Creative Arts. Traditional methods, such as lecture-based instruction and demonstrations, often limit students' creative expression due to their didactic nature. This is consistent with findings from Ayiku et al. (2019) that emphasize memorization over creativity. Teachers are integrating digital tools like tablets and art software into lessons to engage students and teach modern skills, while project-based learning emphasizes hands-on activities and collaboration, aligning with Vygotsky's (1978) social constructivist theory, which emphasizes active, collaborative experiences.

Teacher training and professional development are crucial for enhancing Creative Arts skills through workshops and peer collaboration. However, not all teachers have equal access to these resources as reported by respondent C, leading to disparities in teaching quality. Mensah (2018) emphasizes the need for more equitable professional development opportunities. Insufficient resources and infrastructure in Ghana hinder the implementation of dynamic and engaging art lessons, as noted by Respondent D. These limitations, such as lack of basic materials like paint and brushes, are a significant barrier to effective Creative Arts education Osei (2017). The teaching of Creative Arts is influenced by the cultural context, with teachers incorporating local culture and traditional art forms into their curriculum stated by Respondent E. This approach enhances student engagement and learning outcomes, as argued by Eisner (2002). Teachers face challenges like resource limitations, time constraints, and administrative support, which are essential for effective teaching Creative Arts. Respondent F emphasizes the need for more systemic support, reflecting broader educational challenges outlined by Aboagye (2020).

The Universal Design for Learning (UDL) framework was found to be a powerful method for creating inclusive and effective creative art lessons. It encourages students to have choices in their activities and projects as observed Respondent G, boosting their motivation and interest in art, as suggested by Rose and Meyer (2002). Multiple Means of Representation is a teaching approach that uses visual, auditory, and kinesthetic materials to cater to different learning styles, aligning with Gardner's (1983) theory of multiple intelligences, which advocates for diverse instructional strategies to address learners' diverse strengths. Multiple Means of Action and Expression offer students diverse ways to showcase their learning, including projects, presentations, and written work, which fosters creativity and accommodates diverse learners, as emphasized by Hall, Meyer, and Rose (2012).

UDL prioritizes inclusivity and accessibility, incorporating flexible methods and materials to make lessons accessible to all students, including those with disabilities. Respondent J adapted their lessons to meet special needs needs, a practice supported by Katz (2013). The UDL framework emphasizes the importance of continuous assessment in enhancing student learning outcomes. Teachers use both formative and summative assessments to track progress, providing valuable feedback and promoting meaningful learning as noted also by Black and Wiliam (1998).

The use of UDL-designed Creative Arts lessons has significantly improved student engagement and motivation, according to Respondent L. This aligns with Deci and Ryan's (2000) determination theory, which emphasizes autonomy and relevance as key factors in fostering intrinsic motivation.

The study reveals a significant improvement in students' creative abilities and overall academic performance, bolstering the argument by Hetland et al. (2007) that arts education can enhance cognitive skills and academic achievement. The use of Universal Design for Learning (UDL) in lessons has improved accessibility and participation for all students, including those with disabilities, aligning with UNESCO's principles of inclusive education. However, challenges such as the need for more resources and training persist, reflecting the broader challenges in implementing inclusive education, as discussed by Florian and Spratt (2013). The positive feedback from students and respondent P about Creative Arts lessons indicates that they feel more confident and capable, indicating that inclusive and engaging teaching methods can enhance their self-esteem and satisfaction, as suggested by Durlak et al. (2011). The study indicates a long-term interest in Creative Arts among students, with some even considering it as a career path observed by Respondent Q, in line with Winner and Hetland's (2000) findings on the lasting impact of arts education on students' lives. The study shows a shift towards innovative Creative Arts teaching methods in Ghanaian basic schools, despite traditional methods still dominating. UDL principles have improved student engagement, inclusivity, and

learning outcomes. However, challenges like resource limitations and teacher training persist, emphasizing the need for continued support and development.

The findings from our study reveal significant disparities in teaching approaches between the control and experimental groups in the selected basic schools in Ghana. The control group predominantly employs traditional lecture-based methods, teacher-centered instruction, and limited use of technology, while the experimental group adopts innovative approaches such as inquiry-based learning, student-centered projects, and extensive use of multimedia and technology. These findings align with existing literature emphasizing the importance of adopting student-centered and technology-integrated teaching approaches to enhance engagement and learning outcomes in Creative Arts education (Lam, 2019; Mishra and Koehler, 2006). The observed differences underscore the need for transformative pedagogical practices to promote creativity, critical thinking, and self-expression among students in Ghanaian basic schools.

The implementation of creative art lessons based on the three principles of the Universal Design for Learning (UDL) framework represents a significant pedagogical innovation in our study. By providing multiple means of representation, engagement, and expression, the UDL-designed lessons aim to accommodate diverse learner needs and promote inclusive learning environments. This approach is supported by research demonstrating the effectiveness of UDL in enhancing student engagement, motivation, and academic achievement across various educational contexts (Rose and Meyer, 2002; Scott et al., 2018). Our study contributes to this body of literature by demonstrating the feasibility and potential impact of UDL-based approaches in Creative Arts education, particularly in the context of basic schools in Ghana. The assessment of the impacts of UDL-designed Creative Arts lessons on student learning processes and outcomes reveals promising results. Statistical analysis indicates a significant difference in mean scores between the control and experimental groups, with students in the experimental group outperforming their counterparts in the control group. This finding suggests that the UDL-designed lessons effectively enhance student learning outcomes in Creative Arts education. These results are consistent with prior research demonstrating the positive effects of UDL on student engagement, participation, and achievement (Hitchcock et al., 2018; Smith et al., 2010). Our study underscores the importance of adopting inclusive and innovative teaching approaches, such as UDL, to address the diverse learning needs of students and promote equitable access to quality education in Ghanaian basic schools. Overall, our findings highlight the potential of transformative pedagogical practices, such as UDL-based approaches, to revolutionize Creative Arts education and foster holistic development among basic school students in Ghana. However, further research is needed to explore the long-term effects of these interventions and identify strategies for sustainable implementation and scalability across diverse educational settings.

## CONCLUSION

The study has shown the positive impacts of UDL principles on students' learning experiences and outcomes. The findings indicate that integrating UDL practices in the Creative Arts curriculum enhances inclusivity, engagement, and academic achievement among students with diverse learning needs. The high level of internal consistency in measuring UDL constructs, as evidenced by Cronbach's alpha coefficient of 0.9, underscores the reliability and validity of the study's methodology. The balanced gender distribution among Basic Six learners in the selected schools further highlights the representativeness of the sample population and the generalizability of the study's results. By embracing UDL principles, educators can better cater to the individualized needs of students, promote active participation, and foster a culture of academic success in Creative Arts education. These recommendations have been made for policy and practice to help in integrating the UDL principles into the teaching of Creative Arts:

1. The Ghana Education Service should organize training programs for Creative Arts teachers on the UDL familiarity and implementation to enable them adopt learner-centered and participatory teaching approaches.
2. Heads of Basic Schools in the municipality should ensure that Creative Arts teachers develop their lessons by factoring the three principles in the UDL framework.
3. The Ministry of Education through its implementation agency, NaCCA should formulate educational policies that emphasize the importance of a conducive learning environment that aligns with UDL principles to maximize students learning processes and learning outcomes.

Furthermore, it is suggested that these areas should be explored for further research. First, longitudinal studies should be conducted by future researchers to assess the long-term impact of UDL implementation on students' academic performance and overall learning outcomes. Second, comparative studies of the UDL integration in the teaching and learning of Creative Arts should be carried out across different regions or educational settings. This can potentially provide valuable insights into the scalability and adaptability of UDL practices.

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