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# The Relevance of Instructional Design Framework in Visual Art Education; A Study on The Course Manuals and Its Impact on Student Teachers' Acquisition of Knowledge and Skills at Presbyterian College of Education, Akropong-Akuapem, Eastern Region, Ghana

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**Abstract**

*This study aimed to develop an instructional design framework for the teaching and learning of Visual Art and to assess its impact on the academic performance of student-teachers at the Presbyterian College of Education, Akropong-Akuapem, in the Eastern Region of Ghana. The study was guided by three main objectives: to identify and analyze existing instructional design frameworks for Visual Art education at the college; to develop a proposed instructional design framework; and to evaluate the effectiveness of the developed framework on student-teachers' academic performance in Visual Art courses.*

*A sequential exploratory research design was employed, integrating both qualitative and quantitative approaches to provide a comprehensive understanding of the research problem. Data collection tools included structured interviews, observations, content analysis, and questionnaires. Qualitative data obtained from interviews, observations, and content analysis were used to explore existing practices and inform the design of the proposed framework, while quantitative data from questionnaires helped to validate and evaluate its effectiveness.*

*The study engaged Visual Art tutors, course manual writers, and student-teachers as participants. Interviews were conducted in the offices of tutors and manual writers; observations occurred during classroom sessions; content analysis involved relevant books, journals, and online resources; and questionnaires were administered to student-teachers. The Kirkpatrick Four-Level Evaluation Model was employed to analyze the impact of the developed framework, focusing on reaction, learning, behaviour, and results. Findings revealed that the proposed instructional design framework improved student engagement, comprehension, and academic performance, indicating its effectiveness in enhancing Visual Art education at the college.*

**Keywords:** Instructional design; Visual Art; Student teachers; composition; course manual

## 1. Introduction

Instructional design refers to a structured approach to developing effective learning experiences by considering how individuals learn and the most appropriate methods of instruction, with the aim of creating meaningful, organized, and engaging content to address a specific educational or training need (Twilley, 2014).

The purpose of instructional design is to help achieve desired outcomes in teaching and learning, with much concern for the change students attain in knowledge and skills (Ardent Learning, 2021). The introduction of instructional design in education helps to alleviate other pressing problems that might show up later, as long as teaching and learning continue in our classrooms.

For instructional design to be effective and also achieve its rightful outcomes, instructional methods must be considered by classroom teachers. Instructors and teachers ought to facilitate their learners with the right instructional methods that suit learners (Isman, 2011), with greater concerns on learner-centred approaches to teaching and learning. With the help of instructional teaching methods, learning becomes a regular reflective exercise that takes place in the classroom and other places learners find themselves (Smith and Regan, 1999).

A lesson could be enjoyed in the classroom, but if the absence of instructors makes some learners bored and unwilling to practice what was learnt (McGriff, 2001), then learning does not take place. According to Isman (2011), during instructional activities, students try to get their own experiences from the lessons taught. These personal experiences motivate students to involve themselves in the learning process actively (Kapur, 2020). With the help of these experiences, learners relate their meanings to the learned information, making it easier to keep in mind because it will be much more meaningful. This also makes it necessary for teachers and instructors to always adapt the right instructional methods for every subject and content area to be taught (Kemp, Morrison and Ross,1994).

The introduction of instructional design for teaching and learning of Visual Art promotes best practices for effective and high teaching and learning outcomes (National Council for Curriculum Assessment, 2020) in the study of Visual Art at Colleges of Education in Ghana. The idea of an instructional

design framework for teaching and learning Visual Art in Colleges of Education in Ghana offers both teachers and learners the opportunity to acquire the concepts (NaCCA, 2020) and experiences of Visual Art education in Ghana.

The study of Visual Art introduces learners to the general concepts that promote the creative thinking process through the Two-Dimensional and Three-Dimensional Arts (The New Four-Year B.Ed. Course Manual, 2021). For this to materialize, the National Teaching Council (2020) indicated that knowledge of instructional and assessment strategies is very necessary (Guerriero, 2017) in creating effective teaching and learning environments for all learners.

The instructional design framework for teaching and learning of Visual Art goes beyond subject matter in the classroom. It enables teachers and student-teachers to understand the linkages between theory and practice of the Visual Art course. It implies various educational philosophies and how they could support the study of Visual Art through effective teaching and classroom management techniques (National Teaching Council, 2020).

The instructors and tutors of Visual Art must have an instructional design framework that would help them to improve learners' knowledge and understanding during instructional hours.

The framework can break down the content areas of the subject and also provide instructional designs and methods for teaching and learning Visual Art in Colleges of Education. The main focus of the instructional design is to make teaching and learning very easy among teachers/instructors so that learners can still apply (Sequeira, 2018) lessons learnt to issues of life as they unfold. Appropriate instructional design framework keeps instructors reflecting (Glickman, 1991) on possible ways lessons could be facilitated while learners can relate lessons taught to themselves (Sequeira, 2018) since appropriate instructional designs make room for instructional methods that are suitable for individual learning styles of learners (Dick and Carey, 1996).

According to Czerkawski, Betul, Lyman, and Eugene (2016), an instructional design framework refers to a set of strategies that support and direct instructional designers through the stages of analysis, design, development, implementation, and evaluation. While the framework consists of established components that ensure consistency, it remains flexible enough to accommodate different teaching approaches, subject matter, and learner needs without compromising its foundational structure (Learning Focused, 2019). Instructional framework provides instructional designers the guidelines that support instructional strategies and how they could be used by instructors to achieve learning outcomes. The instructional framework illustrates the integration of content, assessment, and teaching strategies to create intentional lessons that allow learners to take an active role in their learning process (Papanikolaou and Grigoriadou, 2005). The purpose of the instructional framework is to provide instructors with the necessary background, strategies and resources that would create smooth and successful learning with special attention to a particular curriculum or content (James, 2024). An instructional design framework typically encompasses the entire planning process, beginning with a need's assessment and the organization and sequencing of learning activities, and extending to the formative evaluation of instructional materials in alignment with course or curriculum objectives (Seel and Dijkstra, 2004). It is widely acknowledged that instructional design is also an academic discipline focused on integrating various educational activities through the theoretically grounded design, implementation, and assessment of effective learning environments.

### 1.1. Objectives of the Study

To identify and analyze the instructional design framework for teaching and acquisition of knowledge and skills in Visual Art at Presbyterian College of Education, Akropong-Akuapem in the Eastern region, Ghana.

## 2. Higher Education in Ghana

The development of higher education in Ghana is influenced by the nation's colonial history and its subsequent pursuit of self-determination. The background of higher education can be traced to the establishment of the University College of the Gold Coast in 1948, affiliated with the University of London. This institution, now the University of Ghana, was created primarily to train civil servants, teachers, and professionals to serve the colonial administration and later the independent state (Atuahene, 2013).

Higher education includes colleges and universities, and post-secondary specialized institutions. These include teacher training colleges, nurses training colleges, agricultural training colleges, polytechnic and technical education training centres, labour colleges, police and army staff training colleges, and vocational training colleges (Atuahene, 2013; Teferra and Altbach, 2004). In colonial times, most colonialists awarded scholarships to deserving Ghanaian students to pursue higher education abroad, as higher education centres were either few or not available (Akyeampong, 2007). The 1940s saw early attempts to address the challenges faced in higher education by establishing the University of Ghana and other institutions of higher learning in Ghana (Adu-Yeboah and Forde, 2011). The government, after Ghana's independence, also realized the insufficiency of higher educational provisions and sought to establish higher education centres (Atuahene, 2013). During this period, the government made a great effort by establishing two universities, three polytechnic colleges, and numerous specialized colleges for teacher education, nursing, and agriculture (GTEC, 2021).

Ideally, every higher education institution performs the following functions in its display of duty to support national development. Some of these functions include teaching, research, and services rendered to the communities within which they are situated (Atuahene, 2013). The mission statements and goals of every higher education institution have the above-mentioned functions as part of their fundamental missions. Each of these institutions is to run programs of study that attempt to translate these missions into attainable goals for their learners. On the other hand, these missions of higher institutions are achieved through teaching, training, and research (Teferra and Altbach, 2004). The products of the higher education institutions are highly beneficial to the citizenry and the larger human society. It is very important to note that higher education is necessary for the economic, political and social development of every nation-state (Akyeampong, 2007).

Every nation considers its institutions of higher education as its major source of academic excellence. Apart from the traditional universities in Ghana, there are other Colleges of Education which constitute our higher education institutions, with their major interest in training and preparing teachers for the various pre-tertiary schools (Adu-Yeboah and Forde, 2011). The philosophy behind teacher education in Ghana aims at producing teachers instilled with professional skills, attitudes and values, and depth and breadth of content knowledge as well as the passion for enquiry, innovation and creativity that will enable them to adapt to changing conditions, use inclusive strategies and engage in life-long learning (NTECF, 2017). The teachers are required to have a passion for teaching and leadership, to reflect on their practice, to engage with members not only in the school community but also in the wider community, and to act as potential agents of change. This is derived from the Ministry of Education's vision of preparing and equipping all Ghanaians 'with relevant education and productive and adaptive skills to promote the socio-economic development of the country' (ESP, 2016–2030) and the adoption of the UN Sustainable Development Goal 4 to: 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' (NTECF, 2017).

### 2.2. Colleges of Education Courses of Studies in Ghana

The colleges of education courses of study are designed to provide student teachers with the concepts and pedagogy needed to teach the Junior High Schools in their areas of specialisation and to support the learning of students between the ages of 11 and 14years (NaCCA, 2019). This age group is classified as the early adolescent stage of development, which involves rapid developmental changes. Student teachers are expected to have an understanding of human development and the developmental indicators associated with JHS students and how they are displayed, individually and in groups (NTECF, 2017).

This specialism provides the opportunity for student teachers to acquire in-depth subject matter knowledge in specialist subjects within their areas of study (NaCCA, 2019). This selection depends on the department in which the student teacher is studying. For instance, in the Visual Arts domain, student teachers are supposed to select their areas of specialism based on this line: one 2-Dimensional and one 3-Dimensional Art in the JHS Basic School Curriculum (NaCCA, 2019). With these, the student teachers will be able to develop the ability to teach the JHS TVET (Visual Arts) Specialism curriculum using appropriate interactive and Competency-Based-Training (CBT) or hands-on strategies (MoE, 2018).

Student teachers will be trained to understand their students as individuals and members of their communities; be able to shape their learning and support their wellbeing and involvement in ways that build on their interests and aspirations, strengths and needs and encourage them to become thinkers and doers (NTECF, 2017). Furthermore, student teachers going through this programme are expected to understand, recognise and be able to explore and address issues of diversity within the class, TVET (Visual Arts), and potential barriers to inclusion, including personal bias, stereotypes and institutional discrimination (MoE, 2018). The JHS teacher education programme provides the opportunity for the student teacher to appreciate and demonstrate honesty, integrity and love for the country, and the ability to transfer the same values to their learners (NaCCA, 2019).

It is expected that student teachers going through this teacher education programme will have the opportunity to acquire adequate subject knowledge, skills, values, and attitudes of a good teacher who meets the National Teachers' Standards (NTS) in full at the end of their specialism (NTECF, 2017).

### 2.2. Visual Art Curriculum for Colleges of Education

A curriculum is the outline of the concepts to be taught to the students to help them meet the standards of the content. Curriculum is what is taught in the given educational program or subject. It is referred to as the interactive system of instruction and learning with specific goals, contents, strategies, measurement and resources. The concept of curriculum is structured with the transformations that take place within society. It is a comprehensive concept and refers to the total learning experience of individuals, not only in educational institutions but in the community as well. The lesson plans and academic concepts that are taught to the students in educational institutions within the course of pursuing educational programs comprise the curriculum. It is the program, course or set of courses that are taught by the instructors to the students. It has the main objective of making a provision of knowledge and understanding to them in terms of subjects and concepts in various disciplines. In many cases, instructors may develop their curriculum to adapt to lessons and syllabi created by other instructors, use curriculum templates and guides to structure the lessons and courses and purchase curriculum from individuals and organizations.

Curriculum development is a continuous or never-ending process. It is difficult to trace out its origin. The outcome of teaching is known through the learning of students. The assessment of the objectives is carried out based on transformations in the behaviour of the learners. The main focus of the curriculum is to make provision of assistance and support to the students in achieving the desired goals and objectives (Instefjord and Munthe, 2016).

### 2.3. Instructional Design Framework for Teaching and Learning

Instructional design frameworks are systematic methodologies for creating effective, engaging, and learner-centred educational experiences. They serve as blueprints for educators to develop, implement, and assess instructional materials and strategies. The primary aim is to enhance learning outcomes by aligning objectives, content, methods, and assessments within a structured process (APUS, 2025). One of the most influential models in instructional design is the ADDIE model, comprising Analysis, Design, Development, Implementation and Evaluation, which provides a generic yet flexible framework applicable across disciplines.

In the context of teaching and learning, especially within the creative arts and visual education domain, instructional design frameworks play a pivotal role in shaping not just the content but also the pedagogical approach. The analysis phase in the ADDIE model involves identifying learners' needs, defining learning goals, and understanding the context in which instruction will occur (Branch, 2009). This stage ensures that the instructional materials are relevant and tailored to meet specific learner requirements.

During the design phase of instructional development, key components such as the formulation of learning objectives, the development of assessment tools, and the selection of appropriate instructional strategies are established. A widely recognized model that guides this process is Gagné's Nine Events of Instruction, which outlines a systematic sequence of steps for designing effective learning experiences. As Harris et al. (2009) explain that these events include capturing learners' attention, informing them of the objectives, stimulating recall of prior knowledge, presenting new content, providing learning guidance, eliciting performance, offering feedback, assessing performance, and enhancing retention and transfer. Incorporating these steps into instructional design frameworks helps ensure that the instruction is not only engaging but also promotes meaningful and sustained learning outcomes.

The development phase focuses on the actual creation of instructional materials. This involves producing content such as textbooks, videos, multimedia resources, and lesson plans. In visual arts education, for instance, this may include the use of digital tools, visual aids, and interactive media to enhance creativity and expression (Heinich, Molenda, Russell and Smaldino, 2002). The implementation phase then deals with the delivery of the instruction, which requires careful planning to ensure that all logistics, such as classroom setup and technological resources, are in place.

Evaluation, the final phase, involves both formative and summative assessments to determine the effectiveness of the instructional design. Formative evaluation is conducted during the design and development phases to provide feedback for improvement, while summative evaluation assesses the overall impact on learners' academic performance (Dick, Carey and Carey, 2015).

While the ADDIE model provides a foundational approach, other models such as Kemp's Instructional Design Model and the Dick and Carey Systems Approach offer more detailed processes and are particularly suited to curriculum development. Kemp's model emphasizes the continuous nature of instructional design and considers factors such as learner characteristics, instructional problems, and support services (Morrison, Ross, Kalman and Kemp, 2011). The Dick and Carey model, on the other hand, treats instruction as a system and focuses on the interrelationship between context, content, learning, and instruction.

The educational landscape is rapidly evolving with an increasing emphasis on technology and creativity; adopting a robust instructional design framework is essential. This ensures that teaching and learning are aligned with curriculum standards while also addressing learners' unique needs and interests. For instance, incorporating elements from Wheeler's cyclic model allows for constant feedback and revisions (Hurix, 2023), which is crucial for disciplines like visual arts where iterative learning is key.

In conclusion, instructional design frameworks are indispensable in structuring teaching and learning processes. They provide a coherent structure that supports educators in creating meaningful learning experiences, particularly in practice-based fields like creative arts. Through the integration of pedagogical theories and technological tools, instructional design frameworks help bridge the gap between curriculum intent and actual learning outcomes.

## 3. Research design and methodology

A research paradigm is defined as "a basic set of beliefs that guide action" (Guba and Lincoln, 1994, p.17). It reflects the researcher's worldview, encompassing their values and assumptions about reality, how they interpret it, and how they engage with it. Essentially, the chosen paradigm shapes the entire research process, influencing the methods of data collection and analysis. As Kivunja and Kuyini (2017, p.26) note, a paradigm significantly affects every decision made throughout the research journey. Therefore, for this study, the pragmatic paradigm, which helps in interpreting and analyzing data under mixed methods, was adopted. Also, the interpretivist paradigm was used for the study.

### 3.1 Interpretivist Paradigm

Interpretivism emerged as a reaction against the dominance of positivism (Grix, 2004, p.82). It challenges the idea that there is one objective, observable reality that exists independently of human perception. From an interpretivist perspective, ontology is anti-foundational, meaning it does not accept fixed or universal criteria for determining truth (Guba and Lincoln, 2005, p.204).

Interpretive research aims to explore how individuals perceive and make sense of the social phenomena they engage with, rather than seeking universal, objective, and value-free truths (Rehman, 2018). Interpretivists maintain that meaning is subjective and that interpretation is crucial for gaining deeper insight beyond the surface of the data (Houghton, Hunter and Meskell, 2021). According to Rehman (2018), interpretive researchers typically use methods that produce qualitative data, and while numerical data may be included, it is not the primary focus.

### 3.2 Justification for Using Interpretivist Paradigm

In this study, the interpretivist paradigm guided the researcher in gaining deeper insights into the subjective experiences, perspectives, and contextual realities of tutors/lecturers and student teachers involved in the development of an instructional design framework for teaching and learning Visual Art at Presbyterian College of Education. This paradigm was appropriate because it emphasizes the understanding of social phenomena through the meanings that individuals assign to them, enabling the researcher to interpret how participants interact with and respond to the instructional framework within their educational context.

### 3.3 Research Methods

Research methodology section defines the methods and measures used to carry out the study. Research methodology refers to the overall approach used to collect and analyze data in order to answer the research questions. It serves as the strategic plan for addressing the research problem (Baker, 2000). In this study, Evaluation Research and Case Study methods were selected for the qualitative aspect, while the Sequential Exploratory design was adopted for the quantitative component. This combination was used to conduct an empirical investigation and assess the processes involved in designing and developing the instructional design framework aimed at enhancing the teaching and acquisition of knowledge and skills in Visual Art at Presbyterian College of Education.

### 3.4 Evaluation Research

Evaluation research serves as a systematic process of collecting data to determine the effectiveness, value, and outcomes of a programme or intervention (Fitzpatrick et al., 2011). In instructional design, evaluation ensures that educational tools and strategies are achieving their intended learning goals (Branch, 2017). For this study, both formative and summative assessments were employed. Formative evaluation provided feedback during the development of the instructional design framework. In contrast, the summative evaluation assessed the effectiveness of the proposed framework in enhancing student performance in Visual Art education at Presbyterian College of Education. According to Powell (2006), evaluation methods such as impact assessment, process evaluation, and performance measurement can support evidence-based improvements in educational practice.

### 3.5 Justification for Using Evaluation Research

The rigorous and systematic nature of evaluation research enabled the researcher to gather relevant data, interpret findings, and make informed decisions about refining instructional strategies and content (Mertens and Wilson, 2019).

### 3.6 Population

A research population refers to the entire group of individuals, objects, or events that share a common characteristic and from which data relevant to a specific study can be collected. It forms the primary focus of empirical inquiry, as it is from this group that generalizations are drawn and conclusions are made (Adam and Hassan, 2017). A well-defined population is essential for ensuring the validity and relevance of research findings, as it provides a clear framework for sampling and data collection (Creswell and Creswell, 2017).

For this study, the total population comprised 110 participants. This included 102 Visual Art student teachers from Levels 100 to 400, five (5) tutors/lecturers, all from the Creative Arts Department of the Presbyterian College of Education, Akropong-Akuapem, and three (3) Curriculum Developers or Course Manual Writers involved in the development of the TVET Creative Arts and Design Course Manuals, summing up to 110. These groups were purposefully selected due to their direct involvement in or influence on the instructional design and delivery of Visual Art education at the college.

### 3.7 Purposive Sampling Technique

McCombes (2022) explains that this sampling method, also referred to as judgment sampling, relies on the researcher's expertise to choose participants who are most relevant to the study's objectives. It is commonly applied in qualitative research, particularly when the aim is to gain deep insights into a specific phenomenon rather than to generalize findings statistically, or when dealing with a small, well-defined population. For a purposive sample to be effective, it must be guided by specific criteria and a justified reason for including each participant. As a non-probability sampling method, purposive sampling involves the researcher selecting individuals based on their knowledge and professional judgment in the subject area.

### 3.8 Justification for Using Purposive Sampling Technique

Therefore, the purposive sampling technique was used to select the sample for this study. This helped select the Course Manual Writer and the Tutors/Lecturers who are experienced in teaching and learning, and experts in designing and developing the instructional design framework for teaching and learning Visual Art. On the other side, the purposive sampling technique helped the researcher in sampling the 33 Level 200 Visual Art student teachers, who are directly involved in the teaching and acquisition of skills in the Visual Art course (Composition and Creative Expression) with which this study was focused.

### 3.9 Sample Size

According to Mujere (2016), the size of a sample is determined by several factors, including the type of analysis to be conducted, the level of accuracy required for the results, the number and type of comparisons to be made, the number of variables involved, and the degree of diversity within the population being studied. These considerations also play a crucial role in shaping the sample design and guiding the data collection methods. The sample for the study was thirty-seven (37). This consisted of thirty-three (33) Level 200 Visual Art student teachers, three (3) Tutors/Lecturers teaching the Visual Art courses and one (1) Visual Art Course Manual Writer.

### 3.10 Data Collection Instruments

Adosi (2020) emphasizes that to enhance the quality of research outcomes, it is essential to use appropriate data collection instruments. As supported by qualitative research literature (Creswell et al., 2007; Hamilton and Finley, 2019), researchers have a variety of tools at their disposal, and the choice of instrument depends on the study's objectives and the researcher's proficiency in using them. Given the nature of this study, data was gathered from respondents using interviews, content analysis, observation, and questionnaires.

## 4. Data Presentation and analysis

### 4.1 Activities Undertaken for Objective One

- *Objective One sought to identify and analyze the instructional design framework for teaching and acquisition of knowledge and skills in Visual Art at Presbyterian College of Education, Akropong-Akuapem in the Eastern region, Ghana.*

Data were collected through interviews with the Course Manual Writer and lecturers, observations during lectures, a questionnaire administered to student teachers, and analysis of the existing course manual for Composition and Creative Expression under Visual Art.

### 4.2 Findings from Document Analysis on the Existing Instructional Design Framework for the Composition and Creative Expression in Visual Art at the School Studied

According to the Course Manual for Composition and Creative Expression in Visual Art (2021), Composition and Creative Expressions in Visual Art is designed to instill in student teachers critical thinking and creativity through the manipulation of tools and materials. It aims at exposing student teachers to the elements and principles of design. It covers, among other things, concepts, principles, terminologies, compositions in 2-Dimensional and 3-Dimensional and rules in composition and creative expression. The course also offers student teachers the opportunity to work both in teams and independently through Studio Practice. The developing student teacher undertakes independent work and studio practice in pursuance of advanced knowledge and skills in composition through classroom engagement and interaction with practicing artists: painters, sculptors, ceramists, jewellers, and weavers; through constant mentoring, coaching and supported teaching.

This is to expose the developing student teacher to pedagogical approaches needed for preparation towards teaching, learning and assessment and also facilitate critical thinking, idea development, skills, attitude and experience with the ultimate goal of drawing overarching values, principles and competencies to support all students learning in a conducive environment within a modern technologically driven society that is inclusive.

The course is taught using practicum sessions, talk-for-learning approaches, discussions, illustrations, and demonstrations. This course is also assessed through practical teaching at their placement schools, portfolios, examinations, tests, reports, and peer and self-assessment modes.

- ✓ **Core and transferable skills:** Problem-solving skills, personal motivation, civic literacy, teamwork/ collaborative skills, analytical skills, critical thinking, creative and innovative skills, and inquiry.
- ✓ **Cross-cutting issues:** Gender, equity and inclusivity, professional attitudes and values, assessment strategies, action research, reflective thinking.

The following presents the findings of the existing course manual:

### 4.3 Step 1: Aims and objectives of the Course Manual

The Course Manual for Composition and Creative Expression in Visual Art (2021) states that the Composition and Creative Expression course manual is designed to equip Level 200 Visual Art student teachers in Colleges of Education with the knowledge and pedagogy to teach JHS students (ages 11-14) in the TVET Visual Arts strand. The course emphasizes practical, hands-on training in both 2- and 3-Dimensional Art. It outlines five key objectives:

a. To develop student teachers' knowledge and skills in visual art composition in line with the NTECF and NTS, supporting 21st-century learning goals (Trilling & Fadel, 2009);
b. To build understanding of compositional terminology and its practical application (Hetland et al., 2013);
c. To explore creative expression through various media and techniques, promoting critique and dialogue (Eisner, 2002);
d. To produce eco-conscious artworks using sustainable practices (Taylor, 2016);
e. To compile a reflective portfolio demonstrating personal artistic growth and self-expression (Zimmerman, 2009). Together, these aims foster technical skill, creativity, and professional competence.

### 4.4 Step 2: The content and structure of the Course Manual

The Course Manual for Composition and Creative Expression in Visual Art (2021) stipulates that the Composition and Creative Expression course manual is organized into twelve detailed units, each with clearly outlined lesson titles and essential components for effective teaching. It incorporates prior knowledge expectations, anticipates learning barriers, and emphasizes core 21st-Century skills such as critical thinking, creativity, collaboration, and problem-solving (Trilling & Fadel, 2009). The manual addresses cross-cutting themes including gender equity, inclusivity, and reflective practice, in line with UNESCO's (2017) focus on values-based education. Learner-centered instructional strategies include studio work, group projects, tutor-led sessions, and e-learning, fostering deeper engagement (Laurillard, 2013). Each unit links learning outcomes to content, assessment criteria, and teaching resources. The inclusion of CPD needs and suggested readings reflects a progressive and adaptable curriculum design (Darling-Hammond et al., 2020).

### 4.5 Step 3: The learning experiences provided in the Course Manual

The Composition and Creative Expression course manual offers structured learning experiences aligned with the National Teaching Standards (NTS) and National Teacher Education and Curriculum Framework (NTECF), promoting competency-based education and professional growth (MoE, 2017; NTC, 2019). It integrates inclusive practices such as Gender Equality and Social Inclusion (GESI), cultural diversity, and differentiated instruction, reflecting UNESCO's (2021) call for equitable education. The manual includes curated instructional resources and essential readings that deepen content understanding. These learning experiences foster creativity, critical thinking, and reflective practice (Darling-Hammond et al., 2020), equipping student teachers with technical skills and professional values necessary for effective, inclusive Visual Arts instruction (Course Manual for Composition and Creative Expression in Visual Art, 2021).

### 4.6 Step 4: The assessment and evaluation procedures of the Course Manual

The assessment and evaluation procedures of the Composition and Creative Expression course manual are divided into three components: quizzes/tests (10%), practical projects (60%), and report documentation (30%). This structure reflects a balanced approach to assessing cognitive, psychomotor, and reflective skills. Quizzes support foundational knowledge acquisition (Anderson & Krathwohl, 2001), while the heavy emphasis on practicals aligns with Kolb's experiential learning theory (2014), promoting hands-on skill development. Report writing encourages critical thinking and professional reflection, consistent with Schön's (1983) view on reflective practice. This comprehensive model not only prepares student teachers to become technically competent but also fosters their creativity, critical thinking, and professional growth - qualities essential for inclusive and responsive teaching in Visual Arts (Course Manual for Composition and Creative Expression in Visual Art, 2021).

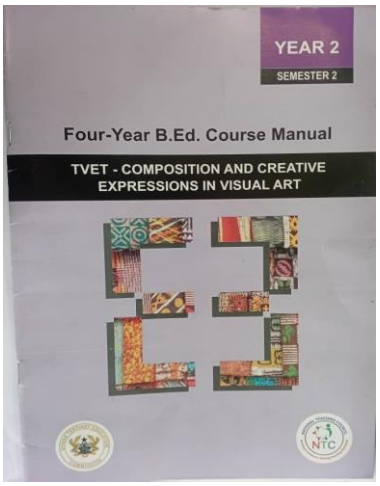


Plate 4.2: Cover page of the Visual Art Course Manual used in the school.

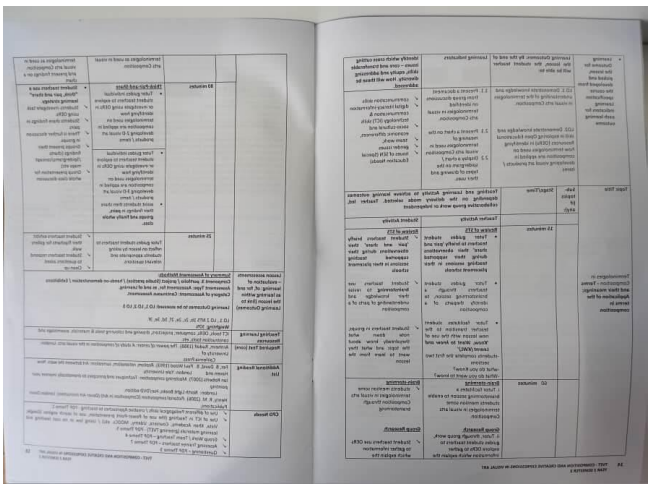

Plate 4.3: Sampled pages of the Visual Art Course Manual used in the school.

*Source: Field Data, 2023.*

**4.7 Analysis of the Existing Composition and Creative Expression Course Manual**

Through analysis of various documents used in the teaching and learning of Visual Art, it was identified that there was no Instructional Design Framework for teaching and learning of Composition and Creative Expression, but the tutors/lecturers use a Course Manual for teaching Level 200 Visual Art student teachers. It was realized that the Ministry of Education published this course manual in Ghana under the Creative Commons Attribution-Sharealike 4.0 International License. The course manual, which was sponsored by the Government of Ghana, T-TEL, UKaid, and Mastercard Foundation, was distributed by the University of Education, Winneba, as the affiliated institution.

In the absence of instructional design framework, the course manual was analyzed through the lens of Wheeler's Model (1967), as interpreted by Ornstein and Hunkins (2017).

**4.8 Justification for Adapting Wheeler's Model (1967)**

Wheeler's (1967) Model, though dated, remains relevant due to its cyclical nature, which emphasizes continuous evaluation and flexibility, key for analyzing dynamic courses like Composition and Creative Expression in Visual Art. Its reaffirmation by Ornstein and Hunkins (2017) underscores its enduring applicability. The model's clarity in linking objectives, content, learning experiences, and assessment aligns well with curriculum analysis goals, making it ideal for evaluating how effectively the course fosters creativity, expression, and alignment with contemporary educational standards.

The Wheeler's Model (1967), which was reaffirmed in Ornstein and Hunkins (2017), was adapted for the review of the existing course manual for the Composition and Creative Expression course. The analyses were done according to the four components of Wheeler's Model for analyzing the curriculum. Although, Wheeler's Model have five key steps (Aims, Goals, and Objectives; Selection of Learning Experiences; Selection of Content; Organization and Integration of Learning Experiences and Content; and Evaluation), the researcher adapted the following steps in the review:

Step 1: Aims and objectives of the course manual

Step 2: The content and structure of the course manual

Step 3: The learning experiences provided in the course manual

Step 4: The assessment and evaluation procedures of the course manual

The analysis of the Composition and Creative Expression in Visual Art course manual using Wheeler's Model (1967), as interpreted by Ornstein and Hunkins (2017), revealed a well-structured and standards-aligned document. However, while the manual outlines clear objectives and structured content, several critical challenges emerge at each stage of the model's adapted steps.

**4.9 Step 1: Aims and objectives of the Course Manual**

The course aims are well-grounded in national policies such as the NTS and NTECF, supporting competency-based teacher education (MoE, 2017; NTC, 2019). Objectives that emphasize critical thinking, sustainability, and portfolio development are commendably aligned with 21st-century educational imperatives (Trilling and Fadel, 2009; Zimmerman, 2009). Nonetheless, a key challenge lies in the lack of a guiding instructional design framework, which may lead to inconsistencies in implementation and interpretation among tutors/lecturers. Ornstein and Hunkins (2017) caution that without a unified framework, even well-articulated aims may not translate into effective instructional practice.

**4.10 Step 2: The content and structure of the Course Manual**

The manual's 12-unit structure includes prior knowledge, potential learning barriers, cross-cutting issues, and CPD needs - elements supported by UNESCO's (2017) framework for inclusive and holistic education. Although the content of the course manual is appropriate for teaching and learning, the structure seems to have complexity in its organization at the introductory part, where some lesson titles were mixed up with the course description. There are instances where sub-headings of the lesson do not have any content under them. This creates a lot of inconsistencies in the lesson delivery since tutors and lecturers might explain certain concepts according to their understanding rather than the general explanations accepted by the stakeholders of the course. Again, there is content overload and ambiguity in sequencing. While the inclusion of diverse instructional strategies promotes active learning (Laurillard, 2013), there is limited scaffolding of concepts, which may hinder deep comprehension, especially for novice teachers. As Wheeler emphasized, curriculum content must be logically

sequenced and developmentally appropriate to ensure cumulative learning (Ornstein and Hunkins, 2017).

Overall, the manual supports constructivist and experiential learning principles, promoting competence in Visual Arts education while ensuring that tutors and student teachers are responsive to contemporary educational needs.

### 4.11 Step 3: The learning experiences provided in the Course Manual

The manual offers inclusive, culturally responsive, and differentiated experiences, aligning with global equity goals (UNESCO, 2021). Yet, the challenge is limited contextual adaptation and resource disparity. While the manual promotes e-learning and group activities, many rural colleges in Ghana lack adequate infrastructure (Asabere and Enguah, 2022), creating a gap between design and practice. Darling-Hammond et al. (2020) argue that authentic learning experiences must be localized and responsive to context, an area that requires further strengthening in this manual.

Also, the course aligns with the educational standards since the majority of its content has the National Teaching Standards (NTS) and the National Teacher Education and Curriculum Framework (NTECF) as its references to teaching and learning. It also provides other instructional resources and required texts to enhance teaching and learning among student teachers. Notwithstanding the above, the course manual seems to lack the Competency-Based Training (CBT) approach, which is the core of all TVET programmes, including visual art (Ghana Education Regulatory Bodies Act, 2020 [Act 1023). The Competency-Based Training (CBT) approach shifts the attention from a traditional teacher-centered approach to a learner-centered approach where every individual learner is considered from the lesson's preparation to the evaluation. The focus of the CBT approach makes it possible for every learning style to be considered. Through this approach, the teacher, who serves as a facilitator, has little or no role to play. With this, learners can study independently and assess their competencies in a particular lesson based on the assessment tools provided (Acqua et al., 2017).

### 4.12 Step 4: The assessment and evaluation procedures of the course manual

The three-way assessment model reflects modern educational paradigms - cognitive (tests), psychomotor (practical), and affective/reflective (reports) - aligning with Kolb (2014) and Schön (1983). However, a notable challenge is the disproportionate emphasis on practical (60%), which, while valuable, risks marginalizing theoretical foundations. Black and Wiliam (2018) stress that balanced assessment is critical to ensure holistic development. Furthermore, the absence of digital assessment tools limits feedback opportunities and learner autonomy. To add to this, the assessment practices outlined in the Composition and Creative Expression manual are very accurate and good instruments for assessing Visual Art practical. Notwithstanding, tutors/lecturers are not able to follow all the components as suggested in the course manual due to the constraints in the duration for which the course must be taught and completed. This has caused tutors/lecturers handling this course to focus much on component one (1) of the assessment criteria to assess the student teachers offering this course, though it is the component with the least weighting (10%) among the rest. This also suggests that the practical skills of the student teachers are not fully assessed since component one (1) only considers the knowledge and understanding (theories) of the Composition and Creative Expression course.

## 5. Conclusions

The findings reveal significant insights into the teaching and learning of the Composition and Creative Expression in Visual Art course for Level 200 Visual Art student-teachers. While the course manual serves as a crucial resource for tutors/lecturers in lesson preparation, student-teachers lack direct access, which hinders their independent learning. The analysis, guided by Wheeler's Model, highlights strengths in the manual's alignment with National Teaching Standards (NTS) and National Teacher Education and Curriculum Framework (NTECF). However, its complexity, insufficient credit hours, and minimal integration of the TVET policy and Competency-Based Training (CBT) limit its effectiveness. The course's traditional teaching methods overlook diverse learning styles, while the absence of art studios constrains practical skill acquisition. Assessment practices are well-designed but are underutilized due to resource constraints. These findings emphasize the need for an instructional design framework to address these gaps and enhance the course's relevance and efficacy.

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