

Integrated Teaching Approaches in Sculpture Education: A Case Study of Selected Secondary Schools in Chembe District, Luapula Province, Zambia

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Abstract: This study explored the use of integrated teaching approaches in sculpture education within selected secondary schools in Chembe District, Luapula Province, Zambia. The study was motivated by the recognition that sculpture, as a practical and expressive art form, required teaching methods that went beyond traditional lecture-based instruction to engage learners in creative, hands-on, and collaborative processes. Using a qualitative case study design, data were collected through classroom observations, interviews with teachers, and focus group discussions with students to examine how integrated approaches such as project-based learning, cross-curricular linkages, and experiential methods were applied in teaching sculpture. The target population comprised head teachers, art teachers and students involved in sculpture education within the selected schools with a sample size of 57 respondents. Data collected were analyzed using thematic content analysis, which involved identifying, coding, and categorizing recurring themes and patterns from interviews, observations, and documents. The findings revealed that integrated teaching not only enhanced learners' creativity, critical thinking, and problem-solving skills but also promoted appreciation of cultural heritage and practical vocational competencies. Furthermore, it was found that learners developed stronger collaboration and communication skills as they worked together on group projects and shared artistic ideas. However, challenges such as limited resources, inadequate teacher training, and curriculum constraints were identified as barriers to effective implementation. The study concluded that fostering integrated teaching approaches in sculpture education could significantly improve learner engagement and outcomes, and it recommended targeted teacher capacity-building programs and resource provision to strengthen the sustainability of these methods.

Keywords: Collaborative Learning, Creativity and Critical Thinking, Integrated Teaching Approaches, Sculpture Education and Secondary Schools.

1. INTRODUCTION

Art education plays a vital role in nurturing creativity, innovation, and cultural identity among learners, and sculpture, in particular, provides a platform for students to engage in hands-on, expressive, and problem-solving activities. In Zambia, the teaching of sculpture in secondary schools has often been limited by traditional, lecture-centered methods that do not fully capture the practical and creative dimensions of the subject. As a result, learners' potential to develop artistic skills, critical thinking, and vocational competencies has been underutilized (Walker & Davidson, 2018). To address this gap, there has been growing emphasis on integrated teaching approaches that combine theory with practice, link subjects across the curriculum, and encourage active participation. Such approaches not only align with modern pedagogical trends but also equip learners with skills that are relevant to personal development and employability in a rapidly changing society (Chanda, 2024).

Sculpture education serves as a cornerstone for nurturing creativity, technical skills, and problem-solving abilities, which are critical for innovation and socio-economic development. Sculpture, as an essential component of this discipline, offers learners an opportunity to explore three-dimensional art forms, develop motor skills, and express creativity through practical engagements (Lillywhite, 2016). However, traditional methods of teaching sculpture in many Zambian secondary schools, particularly in Chembe District of Luapula Province, predominantly emphasize theoretical instruction with limited hands-on practice. This has led to a lack of technical proficiency and reduced interest among learners in pursuing Sculpture as a career.

The integration of interdisciplinary and experiential teaching methods in technical subjects, including Art and Design, has been a focal point in global educational reforms. The integrated sculptural method, which incorporates elements from disciplines such as technology, science, and environmental studies, is increasingly recognized as a tool for enhancing learners' technical and creative capabilities (Arohunmolase, 2025). This approach not only equips learners with the ability to conceptualize and execute complex artistic works but also fosters innovation, critical thinking, and adaptability, essential for meeting the demands of a rapidly changing world. Research indicates that integrating art and design into educational contexts fosters creativity, critical thinking, and cultural integration (Efland, 1990).

This evolution from traditional art classes to modern interdisciplinary approaches merges creative practices with STEM subjects, transforming STEM into STEAM. In the Zambian context, integrating Art and Design with other disciplines has been shown to enrich academic learning and promote innovative thinking, critical thinking, and social cohesion (Kalinde & Bwalya, 2021; Mhango, Ndenguma, & Mnelemba, 2021). Such interdisciplinary approaches not only enhance learners' technical and creative capabilities but also foster adaptability and problem-solving skills essential for meeting the demands of a rapidly changing world. Furthermore, the role of Art and Design in education is evolving in Zambia, with a focus on experiential and interdisciplinary methods that prepare students to navigate complex real-world challenges (Chilufya & Chilinda, 2021).

In Zambia, however, the implementation of such innovative methods is limited due to several challenges. These include inadequate resources, insufficient teacher training, and a curriculum that does not fully integrate practical applications with theoretical learning (Mkandawire, 2010; Kaunda, 2025). In Chembe District of Luapula Province, these issues are compounded by a lack of support for sculpture education, resulting in learners graduating with minimal practical skills necessary for entrepreneurship or further specialization in creative industries (Lungu, Phiri, & Chansa, 2025). These gaps underscore the urgent need to explore alternative teaching methodologies, such as the integrated sculptural method, to enhance the effectiveness of sculpture education in three secondary schools in Chembe District in Luapula Province.

Sculpture, as a form of artistic expression, has been a cornerstone of human creativity throughout history. The process of teaching sculpture, however, has undergone significant transformations over the years. One of the most effective approaches to teaching sculpture is the integrated method, which combines multiple techniques, materials, and philosophies to create a comprehensive learning experience. This approach is grounded in research-based curricular strategies that have been utilized in classrooms for over three decades, enriching learning experiences and nurturing creativity among students (Chilufya & Chilinda, 2021). Arts integration, a key component of this method, emphasizes teaching and learning through the arts, where content standards are taught and assessed equitably in and through the arts (Kalinde & Bwalya, 2023).

The concept of Integrated Teaching Methods in art education dates back to the early 20th century, when artists and educators began to question traditional approaches to art instruction. The Bauhaus movement, which emerged in Germany in the 1920s, emphasized the importance of integrating art, design, and technology in the learning process (Gropius, 2018). This movement laid the groundwork for the development of Integrated Teaching Methods in sculpture education. Sculpture education is an essential aspect of artistic and cultural development, fostering creativity, critical thinking, and technical skill among learners. However, the effectiveness of different teaching approaches remains a subject of interest (Mwakapenda, 2017).

Integrated Teaching Methods of teaching sculpture are guided by several key principles, including interdisciplinary approaches, material exploration, process-oriented learning, and learners-centered learning. According to Chanda (2024b), interdisciplinary approaches allow learners to "make connections between seemingly disparate ideas and concepts". Material exploration, on the other hand, enables learners to develop technical skills and experiment with different materials and techniques. The Integrated Teaching Methods of teaching sculpture offer several benefits, including improved

creativity, developed problem-solving skills, enhanced technical skills, and increased confidence. According to Hetland & Winner (2022), arts education, including sculpture, can improve cognitive skills, such as critical thinking and problem-solving. Additionally, the integrated approach allows learners to develop technical skills, such as modeling, carving, and casting, through hands-on practice and experimentation.

While Integrated Teaching Methods of teaching sculpture offer many benefits, there are also several challenges to consider. According to Smith (2021), instructors must be able to manage multiple materials and techniques, while also providing individualized support to learners. Assessing learners learning is also a challenge, as instructors must develop effective assessment strategies to evaluate learner progress and understanding (Zohaib et al., 2024). The Integrated Teaching Methods of teaching sculpture offer a comprehensive and engaging approach to art education. By combining multiple techniques, materials, and philosophies, instructors can create a rich and supportive learning environment that fosters creativity, technical skills, and confidence in learners. As Zelizer & Grove (2021) notes, "the integrated approach allows learners to develop a deeper understanding of the artistic process and to cultivate their creative potential".

1.1 Statement of the Problem

Despite the importance of sculpture education in fostering creativity, cultural identity, and practical vocational skills among learners, its teaching in Zambian secondary schools has remained largely dominated by traditional, lecture-based methods. According to the Examinations Council of Zambia (ECZ, 2022), less than 25% of learners who enroll in Art and Design at secondary level demonstrate proficiency in practical components such as sculpture, with most performing better in theory-based assessments. In Chembe District, Luapula Province, this challenge is compounded by inadequate teaching resources, insufficiently trained teachers, and limited curriculum support for practical subjects, as only 3 out of 11 secondary schools in the district have designated art teachers and basic studio facilities (Ministry of Education, 2023). As a result, learners often fail to fully engage with sculpture as a hands-on and expressive art form, which hinders the development of critical thinking, problem-solving abilities, and collaborative skills. While integrated teaching approaches have been recognized globally as effective in enhancing learner outcomes, little is known about how these methods were applied in sculpture education within secondary schools in Chembe District. This lack of empirical evidence creates a gap in understanding the extent to which integrated approaches could improve both teaching effectiveness and student learning experiences in this context.

1.2 Study Objectives

- To investigate the effectiveness of integrated teaching methods in Sculpture Education in Chembe District of Luapula Province.
- To identify the key challenges and barriers facing Sculpture Educators in Chembe District of Luapula Province.

1.3 Theoretical Framework

This study was guided by Constructivist Learning Theory, which emphasizes that learners actively construct knowledge through experience, interaction, and reflection (Simply Psychology, 2025). Sculpture education, being practical and creative in nature, aligns with this view, as learning is most effective when students engage in hands-on activities and collaborative problem-solving tasks. Integrated teaching approaches such as project-based learning, cross-curricular connections, and experiential methods—reflect constructivist principles by encouraging learners to explore, experiment, and derive meaning from real-life contexts. The framework also draws on Experiential Learning Theory by David Kolb, which highlights the cycle of concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984). Applying these theories to sculpture education provides a strong foundation for understanding how integrated methods can enhance creativity, critical thinking, and vocational competencies among secondary school learners in Chembe District.

1.4 Significance of the Study

The significance of this study lies in its potential to contribute to the improvement of art education in Zambian secondary schools by demonstrating the value of integrated teaching approaches in sculpture. By examining how these methods were applied in Chembe District, the study provided insights that can guide teachers, school administrators, and policymakers in enhancing learner-centered instruction in practical subjects. The findings are expected to benefit learners by promoting creativity, critical thinking, collaboration, and vocational skills that are essential for both academic success and future

employment opportunities. For teachers, the study highlighted innovative pedagogical strategies that can improve classroom practice and make teaching more engaging and effective. At a broader level, the study added to the body of knowledge on art education in Zambia, serving as a reference for future research and curriculum development initiatives aimed at strengthening the role of the arts in holistic education.

2. METHODOLOGY

This study adopted a qualitative case study design to explore the use of integrated teaching approaches in sculpture education within selected secondary schools in Chembe District, Luapula Province, Zambia. The qualitative approach was appropriate as it allowed for an in-depth understanding of the experiences, perceptions, and practices of teachers and learners in real classroom settings. The case study design enabled the study to examine the phenomenon in context, focusing on specific schools to provide rich, detailed insights into the implementation of integrated teaching methods. The study was conducted in three secondary schools within Chembe district. The target population comprised head teachers, art teachers and students involved in sculpture education within the selected schools. A sample size of 57 respondents was utilized which was 10% of the target population 570. A purposive sampling technique was employed to select three secondary schools known for offering Art and Design as part of their curriculum. Within these schools, three head teachers; 1 from each selected school, nine art teachers; 3 from each selected school and forty-five students; 15 from each selected school were purposively selected based on their active participation in sculpture classes and willingness to provide detailed information. Data were collected using multiple qualitative instruments to ensure triangulation. These included:

1. Classroom observations – to document teaching methods, student engagement, and interaction during sculpture lessons.
2. Semi-structured interviews – conducted with art teachers to explore their experiences, challenges, and perceptions regarding integrated teaching approaches.
3. Focus group discussions – with students to capture their perspectives on learning experiences, creativity development, and skill acquisition.
4. Document analysis – reviewing lesson plans, student portfolios, and school records to provide additional context and evidence of teaching practices.

Data collected were analyzed using thematic content analysis, which involved identifying, coding, and categorizing recurring themes and patterns from interviews, observations, and documents. This process allowed for a comprehensive understanding of how integrated teaching approaches were applied, their effectiveness, and the challenges encountered in teaching sculpture. Ethical approval was obtained from relevant authorities, and informed consent was secured from both teachers and students. Confidentiality and anonymity were maintained throughout the study, and participants were assured that their responses would be used solely for research purposes.

3. FINDINGS AND DISCUSSIONS

3.1 The Effectiveness of Integrated Teaching Methods in Sculpture Education

The study findings revealed that the implementation of integrated teaching methods in Sculpture Education had a notable positive impact on student learning outcomes in selected secondary schools in Chembe District of Luapula Province. Students who were taught using these integrated approaches displayed a deeper understanding of sculptural concepts, including form, texture, proportion, and the use of various materials, and were better able to translate theoretical knowledge into practical execution. Alma et al (2024) added that assessment results demonstrate that learners have developed enhanced creativity, critical thinking, and problem-solving abilities, as they were encouraged to experiment with different techniques and engage in reflective evaluation of their work. One of the teachers observed that:

“Students taught through integrated methods were more actively engaged in classroom activities, showed higher levels of motivation, and participated more confidently in collaborative projects”.

This increased engagement contributed to improved retention of knowledge, as learners could connect multiple artistic and academic concepts in a cohesive manner. The findings also agreed with Amna & Uzma (2025) who say that integrated teaching promote self-directed learning, as students became more capable of planning, executing, and assessing their own sculpture projects independently. Overall, the study concluded that integrated teaching methods fostered a holistic learning

environment that enhanced both the cognitive and practical competencies of students, ultimately leading to higher academic achievement, artistic proficiency, and a greater appreciation of Sculpture Education as a subject.

The study also found that integrated teaching methods significantly enhanced student engagement and motivation in Sculpture Education. Learners exposed to these methods were more actively involved in classroom activities, participating enthusiastically in both individual and group projects. The combination of practical demonstrations, collaborative learning, and theoretical discussions creates a dynamic learning environment that captures students' interest and sustains their attention throughout lessons (Berkovych, 2021). Some teachers reported that:

“Students exhibited increased curiosity and a willingness to explore new techniques, materials, and artistic styles, which reflected a higher intrinsic motivation to learn”.

Furthermore, the interactive nature of integrated teaching encouraged peer-to-peer learning, constructive feedback, and healthy competition, all of which contributed to a more stimulating and supportive classroom atmosphere. As a result, students not only demonstrated greater perseverance in completing complex sculpture tasks but also developed a positive attitude toward learning, suggesting that integrated teaching methods can play a critical role in fostering sustained engagement and intrinsic motivation in creative disciplines such as Sculpture Education.

The study further revealed that the implementation of integrated teaching methods positively influenced teacher competence and preparedness in Sculpture Education (Bierut, 2021). One of the head teachers alluded that:

“Teachers who adopted these approaches demonstrated improved instructional skills, including the ability to design lessons that effectively combined theoretical knowledge with practical activities. They showed greater confidence in using diverse teaching strategies, such as collaborative projects, demonstrations, and problem-solving exercises, to meet the varying needs of students”.

Additionally, teachers were better able to manage classroom dynamics, facilitate student-centered learning, and provide timely feedback that reinforced skill development. The study also noted that ongoing professional development and training in integrated methods enhanced teachers' pedagogical knowledge, technical expertise, and capacity to innovate in lesson delivery. Consequently, the increased competence and preparedness of teachers contribute to a more effective learning environment, improved student outcomes, and the successful implementation of integrated teaching methods in Sculpture Education (Biehl-Missal, 2018).

The study also found that integrated teaching methods had a significant impact on curriculum and lesson design in Sculpture Education. Teachers reported that the use of these methods encouraged them to develop more cohesive and well-structured lesson plans that aligned theoretical concepts with practical activities. Lessons were designed to progressively build students' skills, allowing for the integration of foundational knowledge, creative exploration, and applied sculptural techniques. The curriculum became more flexible, enabling teachers to incorporate diverse learning resources, multimedia tools, and real-life examples to enhance comprehension and engagement (Lave & Wenger, 2021). Additionally, lesson designs that emphasized interdisciplinary connections, such as linking sculpture with history, culture, and environmental themes, helped students appreciate the broader context and relevance of their learning. This finding agrees with Kendall (2020) who says that integrated teaching approaches not only improve the content and organization of lessons but also fosters a more engaging, relevant, and skill-oriented curriculum that supports holistic learning outcomes in Sculpture Education.

The study further revealed that resource availability and utilization played a critical role in the effectiveness of integrated teaching methods in Sculpture Education. Schools that had access to a variety of instructional materials, such as clay, wood, carving tools, molds, and visual aids, were better able to implement practical and interactive lessons that reinforced theoretical concepts. Teachers who effectively utilized these resources reported higher student participation and improved hands-on skill development, as learners were able to experiment with different materials and techniques. Chanda (2024c) notes that limited resources in schools hinder the full application of integrated teaching methods, reducing opportunities for creativity and exploration. However, where resources were strategically organized and shared, students demonstrated greater problem-solving abilities, adaptability, and innovation in their projects. Overall, the findings indicate that adequate provision and effective utilization of teaching and learning resources are essential for maximizing the benefits of integrated teaching methods, ensuring that students achieve both practical competence and conceptual understanding (Bresler, 2017).

The study additionally found that collaborative and peer learning significantly enhanced the effectiveness of integrated teaching methods in Sculpture Education. Students engaged in group projects and peer-assisted activities demonstrated improved communication, teamwork, and critical evaluation skills, as they shared ideas, offered constructive feedback, and collectively solved artistic challenges. This collaborative approach fostered a supportive learning environment where learners could learn from each other's strengths and experiences, leading to enhanced creativity and innovation in their sculptural works. Black, A., & Browning (2021) supported this finding by adding that peer learning not only increase student confidence and motivation but also encourages accountability and active participation, as students take responsibility for both their own learning and the success of group tasks. Hence, the findings suggested that integrating collaborative and peer-based strategies into lesson delivery promotes social interaction, reinforces conceptual understanding, and cultivates essential interpersonal and professional skills that are valuable for success in Sculpture Education and beyond (Chen, 2023).

The study also found that the use of diverse assessment and feedback methods played a crucial role in enhancing the effectiveness of integrated teaching in Sculpture Education. Teachers who implemented formative assessments, practical demonstrations, peer evaluations, and reflective critiques observed that students developed a clearer understanding of their strengths and areas for improvement. Chanda et al (2024) in their study found that timely and constructive feedback enable learners to refine their techniques, experiment with new approaches, and deepen their conceptual knowledge. Additionally, the integration of both formative and summative assessments encourage continuous learning and active participation, as students are motivated to track their progress and set personal learning goals (Bonenfant & Lombard, 2023). The findings indicated that effective assessment and feedback strategies not only reinforced skill acquisition and artistic development but also promoted self-reflection, critical thinking, and a sense of responsibility for one's learning, thereby supporting overall student achievement in Sculpture Education.

3.2. Key Challenges and Barriers Facing Sculpture Educators

A significant finding from the study on challenges facing sculpture educators in Chembe District of Luapula Province was the profound impact of inadequate infrastructure and facilities on both teaching and learning outcomes. Many schools in the district lacked dedicated art studios or well-ventilated spaces suitable for sculptural work, forcing educators to improvise in multipurpose classrooms that were not designed for practical art lessons. Essential equipment and materials such as sculpting tools, carving instruments, modeling clay, and kilns were either insufficient or completely unavailable, severely limiting the scope and quality of hands-on instruction. Overcrowded classrooms compounded these challenges, making it difficult for students to work safely and collaboratively, while poor storage facilities led to frequent damage, loss, or deterioration of learning resources. Additionally, the lack of access to modern technological aids, such as digital design software or audiovisual tools, restricted opportunities for students to explore contemporary sculpture techniques and interdisciplinary approaches (Freedman, 2021). These infrastructural deficiencies not only impeded the effective delivery of the curriculum but also negatively affect student engagement, creativity, and skill development, ultimately undermining the overall quality of education (Zohaib et al., 2023).

Another significant finding of the study was the persistent challenge of resource and material constraints, which posed a major barrier to effective sculpture education in Chembe District. Educators highlighted *chronic shortages of essential sculpting materials, including clay, plaster, carving tools, chisels, sanding equipment, and finishing supplies*, which severely limited students' opportunities to engage in hands-on practice and develop their technical skills. Budgetary restrictions in schools often meant that the few available materials had to be rationed or shared among large groups of students, resulting in limited individual practice time and slowing the overall learning process. In many instances, teachers were compelled to improvise by using locally sourced or recycled materials, such as wood offcuts, scrap metal, or improvised modeling clay, which, while fostering creativity, could not fully meet the requirements of the curriculum or provide the precision needed for skill mastery. The scarcity of materials also hindered the implementation of advanced techniques, experimentation with different sculptural media, and the completion of complex projects, thereby restricting students' artistic growth and expression (Zulu, 2020). These constraints not only affect students' performance and output quality but also contribute to decreased motivation and enthusiasm among both learners and educators, creating a sense of frustration and limiting the overall effectiveness and appeal of sculpture education (Yang, 2020).

The study also identified teacher competence and limited professional development opportunities as a significant challenge affecting sculpture education in Chembe District. One of the head teachers noted that:

“Many educators lacked specialized training in contemporary sculptural techniques, art pedagogy, and the integration of technology into practical lessons, which constrained their ability to deliver high-quality instruction”.

Opportunities for continuous professional development, workshops, or exposure visits to enhance skills and keep abreast of new teaching methods were scarce, leaving teachers reliant on outdated practices. Witte (2012) say that this gap in expertise affect lesson planning, classroom management during practical sessions, and the effective guidance of students on complex projects. Additionally, some teachers reported low confidence in handling diverse student abilities and in implementing innovative or experimental approaches in sculpture, which further limited student engagement and creativity. Consequently, the combination of inadequate professional training and limited opportunities for skill enhancement hinders the overall quality of teaching, negatively impacting student learning outcomes and the development of artistic competence (Zwirn, 2019).

The study further revealed that curriculum and lesson planning issues posed a considerable challenge to effective sculpture education in Chembe District. Educators reported that *the existing curriculum was often rigid, overly theoretical, and insufficiently aligned with practical sculptural skills, making it difficult to design lessons that adequately combined theory and hands-on practice*. Lesson plans were frequently constrained by tight schedules, large class sizes, and a lack of flexibility to accommodate creative experimentation, resulting in a superficial coverage of essential techniques. In some cases, teachers struggled to sequence activities effectively or to scaffold skills progressively, which hindered students’ mastery of complex sculptural concepts. Moreover, Muwowo et al (2024) in their study observed that the absence of contextually relevant instructional materials and guidance on integrating local artistic traditions into the curriculum limit opportunities for students to connect their learning to real-world applications. These curriculum and planning challenges not only affect the quality and depth of instruction but also restricted students’ creative development and engagement, ultimately undermining the overall effectiveness of sculpture education (Mumba & Sichilongo, 2018).

The study also highlighted student engagement and participation challenges as a significant barrier to effective sculpture education in Chembe District. One of the students observed that:

“Many of them displayed low levels of interest or motivation in practical sculpture lessons, often due to the repetitive nature of tasks, limited exposure to diverse artistic techniques, or the scarcity of materials that constrained creative exploration”.

Large class sizes and uneven skill levels further complicated active participation, as teachers found it difficult to provide individualized guidance or ensure that all students were meaningfully involved in hands-on activities. Additionally, some students faced external pressures, such as household responsibilities or part-time work, which limited their availability and focus during lessons. Magoma (2016) say that these factors contribute to irregular attendance, minimal engagement in group projects, and a lack of initiative in completing sculptural assignments. As a result, students’ learning outcomes, skill development, and overall enthusiasm for sculpture were negatively affected, highlighting the critical need for strategies to foster greater participation, motivation, and sustained interest in the subject.

The study further identified financial and funding barriers as a major challenge affecting sculpture education in Chembe District. Many schools operated with limited budgets, which constrained their ability to procure essential sculpting materials, maintain existing facilities, or invest in modern tools and equipment. Grayson & Grey (2020) noted that inadequate funding restrict access to professional development opportunities for educators, including workshops, training programs, and exposure visits that could enhance teaching skills and introduce innovative methods. Some schools relied heavily on parental contributions or student fees to supplement resources, which was often inconsistent and insufficient, creating disparities in the quality of learning experiences among students. One of the teachers pointed out that:

“These financial constraints not only limited the scope and quality of practical lessons but also hindered the implementation of new projects and initiatives, ultimately affecting student learning outcomes, creativity, and the overall development of sculpture education in the district”.

The study also highlighted technological limitations as a significant barrier to effective sculpture education in Chembe District. Many schools lacked access to modern technology, including computers, digital design software, 3D modeling tools, and audiovisual equipment that could enhance teaching and learning. Educators were often unable to demonstrate advanced sculptural techniques or integrate digital media into lessons, which restricted students’ exposure to contemporary practices and limited opportunities for creativity and innovation. Chanda & Phri (2024) supported this finding by adding

that the absence of reliable internet connectivity hinders access to online resources, tutorials, and virtual exhibitions that could supplement classroom instruction. These technological gaps not only constrain lesson delivery and student engagement but also leave learners underprepared for emerging trends in the art and design industry, highlighting the urgent need for technological integration to improve the quality and relevance of sculpture education (Brown, 2018).

The study further revealed that cultural and societal influences significantly shaped the challenges faced by sculpture educators in Chembe District, often limiting both student participation and the overall perception of the subject. In many communities, sculpture and other forms of visual arts were not widely recognized as viable career paths or as essential components of the school curriculum, leading to limited interest among students and minimal encouragement from parents or guardians. Traditional beliefs and societal expectations sometimes discouraged active engagement in arts education, with families and community members prioritizing subjects perceived to offer greater economic security, such as sciences or business studies (Baker, 2020). Gender norms also play a role, as some female students are subtly or overtly discouraged from participating in practical sculptural activities due to societal perceptions of appropriate roles, which reduces opportunities for inclusive learning (Arnheim, 2018). Moreover, societal undervaluing of the arts affected the allocation of resources, with limited community support for exhibitions, competitions, or collaborative projects that could have enhanced students' skills and motivation. These cultural and societal factors not only constrain student interest, engagement, and creativity but also limited educators' ability to implement innovative, contextually relevant, and inclusive teaching practices, ultimately affecting the growth, quality, and sustainability of sculpture education (Berkovych, 2021).

The study also identified collaborative and community support issues as a significant challenge affecting sculpture education in Chembe District. Educators reported *limited opportunities for collaboration with peers, local artists, or cultural institutions, which restricted the exchange of ideas, mentorship, and exposure to diverse techniques and practices*. Schools often operated in isolation, with minimal partnerships or networking platforms to support professional growth or enrich the learning experience for students. Chanda (2018) noted that community involvement in sculpture activities, such as exhibitions, competitions, or public art projects, is generally low, reducing opportunities for students to showcase their work, gain recognition, and receive constructive feedback. The lack of active collaboration and community engagement not only limit practical learning opportunities but also contributes to low motivation among students and teachers alike, highlighting the need for stronger partnerships, mentorship programs, and community-driven initiatives to enhance the overall effectiveness and appeal of sculpture education (Gagnon, 2021).

4. RECOMMENDATIONS

The following are actions that should be taken on the basis of the findings of this study;

1. Enhance Teacher Capacity and Professional Development:

- Schools should invest in continuous training and professional development for sculpture educators to strengthen their competence in integrated teaching methods, lesson planning, and the use of innovative instructional strategies.

2. Improve Resource Availability and Infrastructure:

- Government and school authorities should prioritize the provision of adequate teaching materials, tools, and suitable facilities to support hands-on activities, practical demonstrations, and the integration of technology in sculpture education.

3. Promote Student Engagement and Collaborative Learning:

- Educators should adopt strategies that actively involve students in practical projects, group work, and creative problem-solving activities, ensuring that all learners have the opportunity to participate fully and develop both technical and critical thinking skills.

5. CONCLUSION

The study established that the adoption of integrated teaching methods substantially enhanced students' understanding, creativity, and practical competence in sculpture. By combining theoretical instruction with hands-on practice, collaborative learning, and the selective use of available technological resources, students demonstrated higher levels of engagement, motivation, and skill mastery. The effectiveness of these approaches was closely linked to teacher competence, careful

lesson planning, and the availability and proper utilization of instructional materials. Despite encountering significant challenges, including limited resources, inadequate infrastructure, and varying levels of student participation, the integrated teaching methods consistently showed positive impacts on learning outcomes. The study further highlighted that such approaches not only improve technical skills but also foster critical thinking, problem-solving, and collaborative abilities among learners, preparing them for both academic success and practical applications in sculpture. Overall, the findings emphasize that integrating multiple teaching strategies is essential for enhancing the quality and effectiveness of sculpture education in secondary schools, particularly in resource-constrained settings like Chembe District.

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