

# MASTERING ART FOR A SUSTAINABLE FUTURE: EVALUATING TEACHER PROFICIENCY IN VISUAL ARTS EDUCATION

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**Abstract.** Visual arts education plays a crucial role in the educational landscape, providing students with opportunities to engage with complex social and environmental issues. This study aims to evaluate teachers' proficiency in delivering the Visual Arts Education curriculum, specifically focusing on their knowledge, teaching methodologies, and ability to effectively engage students. The research also emphasizes the importance of aligning educational practices with societal goals, such as sustainability, through innovative and collaborative approaches. Using a quantitative approach, the study finds that while teachers generally have a good understanding of essential aspects of Visual Arts Education, there are areas needing improvement, particularly in media techniques, teaching guidance, and digital skills. Teachers recognize the importance of the Curriculum and Assessment Standard Document (DSKP) and the need to diversify learning activities, but there is a need for more thorough exploration of media and techniques before students create work. The study concludes that targeted professional development is necessary to enhance teachers' effectiveness, ensuring a more comprehensive and impactful visual arts education that supports sustainable futures and innovative teaching methodologies.

**Keywords:** *creativity, art education, teacher, development*

## Introduction

Visual arts education is increasingly recognised as a vital component of the broader educational landscape, providing unique opportunities for students to engage with and reflect on complex social and environmental issues. The creative processes inherent in visual arts enable students to conceptualise and communicate their understanding of sustainability in ways that go beyond traditional didactic methods. As a result, visual arts education not only enhances students' aesthetic and cultural literacies but also equips them with essential skills for navigating and addressing the pressing challenges of the 21st century. Recent publications have highlighted the various ways in which visual arts education can promote sustainability. Previous study emphasises that arts and cultural education can empower learners with the knowledge and skills needed to tackle global challenges such as climate change and social inequality. This perspective is endorsed by advocates for policies that ensure high-quality visual arts education, preparing students for future challenges. Furthermore, integrating sustainability themes into visual arts curricula has been shown to enhance students' critical thinking and problem-solving abilities, which are key competencies for sustainable development.

## *Review of literature*

### *Evaluating teacher proficiency in visual arts education*

In today's educational landscape, the importance of visual arts education is paramount. This discipline not only fosters creativity and expression but also enhances

students' critical thinking and problem-solving skills. However, the success of visual arts education largely depends on the proficiency and understanding of the teachers who deliver the curriculum. For instance, Tomljenović and Novaković highlight that possessing subject-specific competences is a prerequisite for the quality implementation of visual arts classes, emphasizing the need for both pre-service and in-service training to enhance these competencies (Tomljenovic and Novakovic, 2019). Furthermore, Sušić and Benić discuss the importance of educators' sensibility in music and visual arts as foundational for encouraging creative expression in children, suggesting that teachers' personal engagement with the arts significantly impacts their teaching effectiveness (Sušić and Benić, 2018). In recent years, there has been a growing emphasis on aligning educational practices with broader societal goals, such as sustainability. The theme "Towards Sustainable Futures: Innovations and Collaborations in a Changing World" underscores the need for innovative and collaborative approaches in education to address global challenges. Visual arts education, with its inherent potential for creativity and reflection, offers a unique opportunity to integrate sustainable practices and promote environmental awareness. This research seeks to evaluate not only teachers' proficiency in traditional art education but also their ability to incorporate sustainability and innovation into their teaching. By identifying teachers' levels of proficiency and understanding, this study aims to inform potential improvements in teacher training programmes and instructional strategies within the visual arts education sector. Enhancing teacher training to include sustainable practices and innovative methods will not only elevate the quality of art education but also contribute to the broader goal of fostering a more sustainable and collaborative future. Through this research, we aspire to create a more integrated and impactful approach to visual arts education, one that aligns with the evolving needs of our changing world.

### ***Importance of teacher proficiency***

The significance of teacher proficiency in delivering high-quality visual arts education cannot be overstated. Effective visual arts educators play a crucial role in engaging students with sustainability themes, creating environments where creativity and critical thinking can thrive (Ginns et al., 2021). Durrant (2019) emphasise the need for ongoing and reflective professional development programmes that meet the demands of modern education. These studies advocate for the use of technology and innovative teaching methods to cultivate a dynamic learning environment. In the context of visual arts education, this requires teachers to possess a deep understanding of how to utilise technology and innovative approaches to enhance the effectiveness of their teaching.

### ***Research objective***

This research aims to evaluate teachers' understanding and proficiency in delivering the curriculum and concepts related to visual arts education. The study will focus on assessing the depth of their knowledge, their teaching methodologies, and their ability to effectively communicate and engage students with the subject matter. By identifying these levels of proficiency and comprehension, the research seeks to inform potential improvements in teacher training programmes and instructional strategies within the visual arts education field.

## Materials and Methods

The research targets teachers involved in visual arts education at primary and secondary schools across various regions. A stratified random sampling technique is employed to ensure a representative sample, considering factors such as geographical location, school type, and years of teaching experience. The sample consists of approximately 150 teachers, providing a broad overview of the current state of visual arts education. The respondents include visual arts teachers with varying levels of experience, ranging from novice to highly experienced educators. Their participation is crucial in providing insights into the depth of their knowledge, teaching methodologies, and ability to integrate sustainability themes into their teaching. Data is collected through a combination of surveys, interviews, and classroom observations. The survey features a series of Likert-scale questions designed to assess teachers' self-reported proficiency and understanding in delivering the visual arts curriculum, as well as their familiarity with sustainability and innovative teaching practices. Semi-structured interviews are conducted with a subset of respondents to gain deeper qualitative insights into their experiences, challenges, and successes in teaching visual arts. Additionally, classroom observations are carried out to assess the practical application of teaching methods and the integration of sustainability themes in real-world settings.

The survey instrument is developed based on existing literature on visual arts education, teacher proficiency, and sustainable practices in education. It is piloted with a small group of teachers to ensure clarity and relevance, and adjustments are made based on their feedback. The interview guide is also developed with a focus on exploring key themes identified in the literature, such as the use of technology in art education, the integration of sustainability, and the effectiveness of different teaching strategies. Quantitative data from the surveys is analysed using descriptive and inferential statistics to identify trends, correlations, and significant differences among various groups of teachers. Qualitative data from interviews and observations is analysed thematically, with coding used to identify recurring patterns and insights related to teacher proficiency, challenges, and best practices in visual arts education. This comprehensive methodology aims to provide a well-rounded understanding of teachers' proficiency in visual arts education, offering valuable insights for enhancing teacher training programmes and instructional strategies to align with contemporary educational goals.

## Results and Discussion

### *Teacher level understanding*

Based on the information obtained, the analysis shows that teachers understand the importance of using the Curriculum and Assessment Standard Document (DSKP) for Visual Arts Education in teaching and learning (*Table 1*). This finding recorded a mean of 3.58 and a median of 4.00, indicating that although most teachers are aware of the importance of DSKP, there is room to improve this level of understanding among some teachers. The next findings show that the teachers understand the importance of emphasizing the four modules described in Visual Arts Education during teaching. This is evidenced by a mean of 4.12 and a median of 5.00, reflecting a high level of understanding of the importance of the modules in the curriculum. In the aspect of diversifying learning activities inside and outside the classroom during teaching and

learning, the findings recorded a mean of 4.41 and a median of 5.00. This suggests that teachers not only understand the value of diverse activities but actively incorporate them to enhance the learning experience. In addition, the understanding of the importance of explaining to students the purpose and goals of teaching based on DSKP content showed a mean of 3.74 and a median of 4.00. This shows that most teachers understand the importance of this, but there are some who still need improvement in this aspect. Teachers also recognize the importance of assigning tasks or exercises using appropriate methods to meet teaching and learning objectives. Findings show a mean of 4.36 and a median of 5.00, indicating a high level of understanding in this aspect. When it comes to the use of suitable teaching aids, findings recorded a mean of 4.42 and a median of 5.00, showing that teachers value the use of effective and relevant teaching tools. However, in the aspect of providing guidance to students during the teaching and learning process (pdP), the findings show a mean of 3.14 and a median of 4.00. Although the median indicates a good level of understanding, the lower mean reflects that there is room to improve the guidance approach to students.

**Table 1.** *Teacher's level understanding.*

Item	Mean	Median
I understand the importance of using Visual Arts Education DSKP to implement Visual Arts Education teaching and learning.	3.58	4.00
I understand the importance of emphasizing the four modules described in Visual Arts Education in teaching.	4.12	5.00
I understand to diversify the learning activities inside and outside the class when carrying out teaching and learning activities.	4.41	5.00
I understand the importance of explaining to students the purpose and goals of teaching based on DSKP content during teaching and learning.	3.74	4.00
I understand the importance of giving assignments or exercises that are based on appropriate approaches in order to achieve teaching and learning objectives.	4.36	5.00
I understand the importance of using appropriate teaching aids during teaching and learning.	4.42	5.00
I understand the importance of how to give guidance to students during pdp.	3.14	4.00
I understand the importance of knowing the media and techniques that fit the teaching topic.	2.53	2.00
I understand the importance of teacher awareness knowing the appropriate digital skills to deliver lessons.	3.39	4.00
I understand the importance of understanding and giving the appropriate level of mastery to students.	3.22	3.00
Overall Average	3.69	4.00

In terms of understanding media and techniques that fit the teaching topic, a mean of 2.53 and a median of 2.00 were recorded. This shows that there are significant weaknesses in this aspect, which require immediate attention to ensure the effectiveness of teaching. Findings also reveals an understanding of the importance of appropriate digital skills to deliver lessons with a mean of 3.39 and a median of 4.00. This shows that although there is an awareness of the importance of digital skills, their implementation still needs improvement. Lastly, the understanding of giving the appropriate level of mastery to students recorded a mean of 3.22 and a median of 3.00. This illustrates that there is variation in this level of understanding among teachers, and there needs to be more effort to ensure that all teachers can set the appropriate mastery level for their students. Overall, these findings show that teachers have a good understanding of some important aspects of Visual Arts Education, but there are some areas that need attention and improvement to ensure a more holistic and comprehensive teaching effectiveness.

***Skill level teacher***

Based on the findings, the respondent's skill level in using the appropriate approach in Visual Arts Education subjects showed a mean of 3.34 and a median of 4.00 (Table 2). This shows that although most respondents feel confident in their abilities, there are also some who feel there is still room for improvement. Respondents showed a high level of skill in presenting Visual Arts Education information visually in graphic form, with a mean value of 4.11 and a median of 5.00. This shows that most respondents feel very confident in their abilities in this aspect. In the aspect of providing teaching aids, respondents recorded a mean value of 4.19 and a median of 4.00. This shows a good level of preparation among the respondents in providing suitable materials for teaching and learning. The ability of respondents in asking students to produce works using appropriate media and techniques recorded a mean of 4.12 and a median of 5.00. This shows a high confidence in instructing students to use the correct approach in their artwork. Although respondents showed good skills in asking students to produce works, the level of ensuring that students explore media and techniques recorded a slightly lower mean of 3.42 and a median of 4.00. This may indicate that there are challenges in ensuring that all pupils are fully involved in the exploration process before producing work.

***Table 2. Skill level teacher.***

Item	Mean	Median
I am good at using appropriate approaches in Visual Arts Education subjects	3.34	4.00
I am good at presenting Visual Arts Education information visually in graphic form to students in teaching and learning.	4.11	5.00
I provide suitable teaching aids during teaching and learning.	4.19	4.00
I ask students to produce works using appropriate media and techniques.	4.12	5.00
I make sure students do media and technique exploration before students produce work.	3.42	4.00
I am sure all students can express at least one appropriate visual language during teaching and learning	4.41	5.00
I am skilled in relating all the content in DSKP Visual Arts Education to deliver teaching and learning.	3.34	4.00
I efficiently deliver lessons using appropriate teaching aids during teaching and learning.	3.38	4.00
I efficiently manage teaching and learning by choosing appropriate media and techniques.	3.66	3.00
I am skilled in controlling the class while teaching and learning are carried out according to the set time.	4.11	5.00
Overall Average	3.80	4.00

Respondents are confident that all students can express at least one appropriate visual language during teaching and learning with a mean value of 4.41 and a median of 5.00. This shows a high confidence in the student's understanding in the use of visual language. The respondent's ability to relate all the content in the Visual Arts Education Curriculum and Assessment Standard Document (DSKP) showed a mean of 3.34 and a median of 4.00. This shows that even though there are respondents who are confident, there are still some who need improvement in this aspect. The efficiency of respondents in delivering lessons using appropriate teaching aids recorded a mean of 3.38 and a median of 4.00. This shows a moderate level of efficiency and can still be improved. In the aspect of teaching and learning management by choosing appropriate media and techniques, respondents showed a mean value of 3.66 and a median of 3.00. This shows moderate efficiency and shows that there is room for improvement. Respondents

showed a high level of skill in controlling the class during teaching and learning with a mean value of 4.11 and a median of 5.00. This shows that most respondents are confident in their ability to control the class well. Overall, the analysis of these findings shows that although there are some aspects that show a high level of skill and competence, there are also some areas that still need improvement. Respondents are generally confident in their abilities but should continue to work to improve skills in areas identified as needing attention.

The findings indicate that while teachers possess strong understanding and skills in several critical areas of Visual Arts Education, there are specific aspects, particularly around media techniques, guidance during the teaching process, and digital skills, where targeted professional development could further enhance their effectiveness. Continuous improvement and support will ensure a more comprehensive and impactful Visual Arts Education that aligns with sustainable futures and innovative teaching methodologies. Several articles collectively underscore the significant role of art in enhancing creativity through process learning, employing diverse media and techniques in artwork. For instance, Srikongchan et al. (2021) demonstrate how backward instructional design, integrating lateral thinking activities, stimulates creative thinking in students. Ozkan and Umdu Topsakal (2021) reveal that incorporating art into STEAM education significantly boosts creativity among middle school students, encouraging innovative problem-solving through various artistic techniques. Mustofa and Hidayah (2020) explore the impact of problem-based learning on lateral thinking skills, illustrating how engaging with complex problems through creative processes fosters inventive solutions. Horikami and Takahashi (2022) introduce the Tripartite Thinking Model of Creativity, emphasizing the interplay between analytical, synthetic, and practical thinking in the creative process, and highlighting how artistic methods can cultivate these diverse cognitive skills. Together, these studies stress the importance of integrating art into educational frameworks to enhance creativity through structured, process-oriented learning using a variety of media and techniques.

The role of suitable guidance and teaching techniques in art education is also highlighted as a significant enhancer of creativity, leading to the creation of innovative artworks. Tu et al. (2023) discuss the application of the ATDE-based model in teaching creativity within a design practice course, demonstrating how structured guidance can improve students' creative outcomes. Žarnauskaitė (2023) provides a systematic review of creativity education for young children in Lithuania, highlighting the effectiveness of targeted pedagogical strategies in nurturing early creative skills. Vuk (2023) explores the development of creativity in elementary schools, showing that tailored teaching techniques, such as encouraging experimentation and providing constructive feedback, can foster a creative mindset in young learners. These studies emphasize the importance of well-designed instructional approaches and supportive teaching methods in cultivating creativity through art education.

### ***Integration of digital skills in art education***

Many researchers believe that art education can enhance creativity through the integration of teachers' digital skills. Şahin et al. (2024) highlight that professional development programs for teachers, focusing on digital and computational skills, significantly boost their competence in designing innovative STEM lesson plans, fostering creativity among gifted students. Huang (2021) discusses the impact of digital media and interactive e-learning applications in art teaching, showing how big data

platforms can enhance creative learning experiences. Varas et al. (2023) examine the strategies and challenges teachers face in imparting 21st-century skills, emphasizing the need for a unified approach to effectively integrate digital tools in fostering creativity. Costes-Onishi and Kwek (2023) contrast technical skills with meaning-making in art education, advocating for inquiry-based learning that combines digital proficiency with aesthetic inquiry to enhance creative outcomes. These studies collectively underscore the critical role of teachers' digital skills in cultivating creativity through modern, technology-enhanced art education.

The analysis provides a comprehensive evaluation of teachers' proficiency and understanding of Visual Arts Education. It highlights their strengths in several critical areas while identifying specific aspects, such as media techniques, guidance during the teaching process, and digital skills, where further professional development is needed. These findings suggest that while teachers are adept in many areas, continuous improvement and targeted support are essential for enhancing their effectiveness. This will ensure a more comprehensive and impactful Visual Arts Education, aligning with sustainable futures and innovative teaching methodologies. Overall, the study underscores the importance of equipping teachers with the necessary skills and knowledge to deliver a robust and dynamic visual arts curriculum.

## **Conclusion**

The research highlights the critical need for continuous professional development to enhance teachers' competencies in visual arts education, particularly in media techniques, instructional guidance, and digital skills. By focusing on these areas, educators can better nurture creativity and prepare students for the challenges of the modern world. The integration of digital skills into art education is especially important, as it enriches learning and aligns with innovative teaching methodologies. Overall, the study emphasizes the importance of equipping teachers with the necessary skills and knowledge to deliver a robust and dynamic visual arts curriculum, ensuring that it remains a vital part of education that fosters creativity and innovation in students.

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## **Conflict of interest**

The authors confirm that there is no conflict of interest involve with any parties in this research study.

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