

Art Education

ISSN: 0004-3125 (Print) 2325-5161 (Online) Journal homepage: www.tandfonline.com/journals/uare20

Transformative Pedagogy: The Impact of Arts Integration on Teacher Development and Student Engagement

Dina Fried

To cite this article: Dina Fried (2025) Transformative Pedagogy: The Impact of Arts Integration on Teacher Development and Student Engagement, Art Education, 78:5, 38-45, DOI: 10.1080/00043125.2025.2549968

To link to this article: https://doi.org/10.1080/00043125.2025.2549968

Published online: 28 Oct 2025.

Submit your article to this journal

Article views: 59

View related articles

View Crossmark data

Full Terms & Conditions of access and use can be found at
https://www.tandfonline.com/action/journalInformation?journalCode=uare20

Transformative Pedagogy: The Impact of Arts Integration on Teacher Development and Student Engagement

Dina Fried

The call for 21st-century skills has grown louder since philosopher and educational reformer John Dewey (1938) laid foundational work. In today's era of rapid globalization, the demand for competencies like communication, creativity, multicultural understanding, collaboration, and critical thinking has intensified (Teo et al., 2019). While education has traditionally focused on literacy and mathematics, the modern world requires a broader skill set. Students must not only learn "what" to learn, but also "how" to learn—developing adaptable knowledge to navigate the complexities of the contemporary world (Moylan, 2008). Across disciplines, experts agree that skills such as critical thinking and creative problem solving can be taught (Sandeen & Hutchinson, 2010). This shift in education reflects a growing recognition that knowledge synthesis, personal growth, and coping strategies are essential for success. Particularly in higher education, creativity and innovation play a crucial role, laying the groundwork for future societal and workplace trends.

Art-Based Pedagogy

While art-based pedagogy has often focused on arts education itself, this study examines the use of the arts as a tool to support 21st-century pedagogical goals. Moving from "what" to "how" we teach, it encourages teachers to incorporate creative methods to enhance critical thinking, creativity, and long-term problem-solving skills in students.

Educational researchers Lee W. Crockett and Marty Malley (2017) and distinguished art educator Elliot W. Eisner (2002) asserted that the arts can be a powerful medium for fostering interdisciplinary collaboration, creativity, and fresh perspectives on knowledge (Ulbricht, 2005). Art education scholar Julia T. Klein used the metaphor of the spiderweb to illustrate how interdisciplinary connections, when infused with art, enrich learning by linking diverse contexts. However, Klein warned that this method might reduce the depth of individual disciplines. Instead of generating new knowledge in the arts, integration offers new perspectives on existing content (as cited in Marshall, 2014). Incorporating art into the classroom not only nurtures creativity, but also aids in knowledge acquisition and deepens students' understanding of complex concepts (Marshall, 2010).

Teacher Training: What Role Does Art Play?

Teacher education aims to develop teachers as experts in their subject fields. Traditionally, this expertise has centered on subject knowledge, but today it must encompass 21st-century competencies such as communication, collaboration, and creativity (Häkkinen et al., 2017). Educational researchers Großschedl et al. (2015) underscored that the quality of teacher training significantly impacts student outcomes, especially when arts and creativity are integrated into training programs.

Studies show that integrating the arts into teacher education helps students navigate personal challenges and enhances socioemotional intelligence, directly influencing teaching effectiveness (Gatt & Karppinen, 2014). Art educator Robyn Gibson (2003) conducted a longitudinal study on arts integration in teacher training that revealed that visual arts boosted teaching students' confidence in applying the arts in their future classrooms. While more research is needed to explore the long-term behavioral impact of arts-based training in higher education, existing evidence demonstrates the transformative power of art integration in creating dynamic, creative learning communities (Burnaford et al., 2001; Ewing, 2010). Subsequent studies by Burnaford et al. (2001) reinforced these findings.

21st-Century Skills in Higher Education

The 21st century has redefined the role of higher education, calling for a shift from functional knowledge to fostering critical, independent thinking (Shkurkin et al., 2015). Sociologist John Macionis (1989) described the previous century's "functional paradigm" (p. 11), which valued knowledge based on its utility to the social order, a model that no longer meets the demands of today's rapidly changing society. Education now needs to focus on personal, organizational, and professional growth (Ushatikova et

Studies show that integrating the arts into teacher education helps students navigate personal challenges and enhances socioemotional intelligence, directly influencing teaching effectiveness.

al., 2016). Educational theorist Stephen Sterling (2001) argued that academic learning must relate to human experience, emphasizing adaptability over knowledge transmission.

Sterling (2001) advocated for an ecological paradigm that encourages higher education to embrace a sustainable worldview. This paradigm shift underscores the need for critical subjectivity and relational thinking to address societal changes better. Shkurkin et al. (2015) further emphasized the need for adaptive educational models, while Ushatikova et al. (2016) highlighted the importance of professional growth in modern curricula.

The Art in STEAM: An Example of Arts Integration

The science, technology, engineering, arts, and mathematics (STEAM) model has long been central in educational research, emphasizing the integration of the arts into STEM fields to foster inquiry, dialogue, and critical thinking (Craft, 2003). Educational researchers Inoa et al. (2014) showed that this model improves teacher efficacy and enhances student performance, particularly in literacy and mathematics, by promoting creativity, collaboration, and interdisciplinary learning. Arts integration encourages students to engage critically with their work and the work of their peers, honing essential problem-solving and creative-thinking skills. Inoa et al. (2014) provided evidence of improved student outcomes through STEAM.

Although the concept of STEAM is not new, much of the existing research has focused on its theoretical foundations or isolated applications. This study distinguishes itself by offering teachers practical tools and strategies for integrating the arts into curricula. This hands-on approach equips educators with the skills to incorporate arts-based methods seamlessly into their teaching, bridging the gap between theory and practice. Ultimately, it empowers teachers to create engaging, holistic learning experiences that foster deeper student engagement and improve learning outcomes across subjects.

Toward Integrative Pedagogical Practices

In today's classrooms, pedagogy plays a pivotal role in students' social integration and academic success. Pedagogical methods that promote social–emotional learning alongside academic achievement require systematic organization and professional training (Crockett et al., 2015). Educational theorist Lee S. Shulman (1986) introduced the concept of "pedagogical content knowledge" (p. 9), emphasizing that teachers must apply theoretical knowledge in practical ways that cater to students' individual needs.

While much research has focused on teaching the arts as a stand-alone subject, fewer studies have explored how arts integration can support the teaching of core subjects. Educational researchers Allahverdiyev et al. (2017) showed that arts integration enhances cognitive, social, and communication skills in students, fostering social engagement and collaboration. Allahverdiyev et al. further demonstrated these benefits in diverse educational settings. However, Eisner (2002), an art education scholar, cautioned that art integration, if not executed thoughtfully, could trivialize the arts by treating them as mere tools for teaching other subjects, risking the loss of their intrinsic value and depth (p. 26). This concern underscores the importance of mindful integration to preserve the artistic integrity of the discipline. This study aimed to explore how the arts can be used pedagogically to create dynamic and integrative educational experiences, fostering critical thinking, creativity, and deeper connections to core subjects through a balanced and thoughtful approach to arts-based learning.

Methodology

Type of Research

This study follows an action research design, rooted in Lewin's (as cited in Bargal, 2006, 2012) 1946 paradigm. Action research blends systematic inquiry with the investigation of a social problem, aiming to both understand and address the issue while generating new knowledge. It employs a cyclical, iterative process where goals are set, outcomes are evaluated, and interventions are refined. Central to this approach is collaboration among all participants, emphasizing group dynamics to facilitate change. The methodology encourages dialogue between participants' lived experiences and the phenomena being studied, deepening understanding on both ends (Bargal, 2006; Manfra, 2019; Niemi, 2019).

Research Population

The intervention targeted 25 teachers, ranging in experience and qualifications, with the goal of enhancing 21st-century skills through arts integration in education. The 30-hour workshop spanned 7 weeks, consisting of 4- to 5-hour sessions. Participants' teaching experience varied, with 37.9% having more than 20 years of experience, forming the largest group. Other participants had between 1 and 3 years (17.2%), 16 to 20 years (17.2%), and 4 to 6 years (10.3%) of teaching experience. This demographic diversity allowed for a rich context in examining arts-based pedagogical approaches across various educational backgrounds and expertise levels.

The high proportion of experienced teachers (37.9%) shaped the workshop structure to leverage their classroom expertise, encouraging them to share insights while exploring new arts integration strategies. Simultaneously, early career teachers (17.2%) required additional scaffolding, leading to differentiated instructional materials. The majority of participants (51.6%) held advanced degrees, influencing the theoretical depth and analysis of

Ultimately, it empowers teachers to create engaging, holistic learning experiences that foster deeper student engagement and improve learning outcomes across subjects.

the workshop, particularly in reflective journaling and critical self-assessment. These diverse backgrounds and experiences enriched the study, requiring a nuanced approach to accommodate varying viewpoints and expertise.

The participant group consisted primarily of elementary generalist teachers, with some high school generalists and a mix of teachers from various grade levels (K–12) and roles, including subject-specific teachers (e.g., art, language arts). Not all participants enjoyed teaching art; however, some were familiar with the arts through personal practice or occasional classroom activities. Preworkshop surveys indicated that many lacked confidence in arts integration, with 60% expressing concerns about their ability to incorporate art effectively (Mishra & Mehta, 2017). Most participants (80%) had not received prior formal training in arts integration, relying instead on informal experiences. Their motivations for attending the workshop included curiosity about how arts could enhance curriculum delivery and support 21st-century skills, such as critical thinking and creativity, which they were required to implement in their classrooms. Additionally, participants sought innovative tools to address the challenges of managing large, diverse classrooms with students of varying needs. The workshop required teachers to implement arts-based strategies in their classrooms weekly and provide feedback during sessions, fostering meaningful progress. By the conclusion, nearly all participants reported plans to integrate arts more frequently, reflecting increased confidence and enthusiasm, as detailed in the study's findings.

Research Design

The research employed the following tools:

1. A 21st-century skills survey (Mishra & Mehta, 2017) administered before and after the workshop.
2. Artistic field logs completed after each session, alongside a critical self-reflection report at the end of the intervention.
3. Art-based pedagogy tasks to apply learning throughout the workshop.
4. A final self-reflection report evaluating knowledge application, 21st-century skills, and personal growth.

Data collection focused on participants' relational, interpretive, and subjective experiences. While I facilitated the workshop, no personal relationships with participants existed. Because the workshop was part of a government-sponsored professional development program, full participation was required for certification, although participants could opt out of the research without affecting their certification. Final reflections were evaluated by external professionals to ensure objectivity.

Researcher Background

I hold a BEd in art teaching and an MA and a PhD in art therapy. I have 20 years of experience teaching art and practicing art therapy in K–12 settings, primarily elementary. My arts integration expertise includes designing interdisciplinary curricula combining visual arts with core subjects, demonstrated through prior professional development workshops. Invited by a government-sponsored program to address 21st-century skills, I led a 30-hour workshop, leveraging my background to enhance teacher development through arts integration.

Data Analysis

The study analyzed the relationship between arts integration and the development of 21st-century skills through a coding system identifying recurring themes in participants' written and artistic reflections. Content analysis was used to link the intervention goals with outcomes, particularly focusing on participants' ability to apply new tools and pedagogical approaches. Key themes were identified from artistic field logs and critical self-reflections, examining the impact on teaching practices.

Ethical Considerations

Transparency was prioritized in the action research process. Participants were fully informed about the study's aims and structure, including the potential future use of their creative work. They were assured of the option to withdraw from the research without impacting their participation in the workshop. Consent was obtained through a preliminary consent form at the start of the study.

Research Questions

The study aimed to address three central research questions:

1. How does the intervention impact teachers' ability to integrate the arts into their teaching, enhancing 21st-century skills such as critical thinking, creativity, and flexibility?
2. Will teachers increase their use of arts-based methods in their classrooms following the intervention?
3. How does the responsive, artistic approach deepen teachers' ability to integrate the arts into their pedagogy?

The intervention used Kolb's experiential learning cycle (1984), comprising four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. Participants engaged in art-based activities, reflected on their experiences, conceptualized learning, and applied new knowledge in real time through active experimentation. This cycle ensured that participants gained both theoretical understanding and practical skills for arts integration.

Workshop Structure and Activities

- *Art activities*: Each session began with hands-on art activities (e.g., drawing, reflective drawing, photography, music, storytelling through visual media), engaging participants in Kolb's concrete experience phase.
- *Reflection and discussion*: Participants shared their artwork and insights in small groups, engaging in critical discussions about their own teaching practices. This supported the reflective observation phase.
- *Theoretical integration*: Short lectures on social–emotional learning and arts pedagogy helped link participants' experiences to broader pedagogical frameworks, fostering abstract conceptualization.

- *Practical application*: Teachers collaboratively designed lesson plans integrating arts-based methods, then implemented these plans in classrooms, completing Kolb's active experimentation phase.

After the workshop, 14.91% of teachers reported greater confidence in applying arts integration, and 15.60% expressed comfort with the approach.

Initial Findings

The study provided encouraging results (Figure 1). According to the 21st-century skills survey (Mishra & Mehta, 2017), 83% of participants were eager to learn and apply arts integration to enhance their teaching before the workshop, although only 41% felt confident in arts integration initially. After the workshop, 14.91% of teachers reported greater confidence in applying arts integration, and 15.60% expressed comfort with the approach. Participants' reflective journals and interviews revealed that arts integration fostered creativity, enhanced student engagement, and developed teaching skills, supporting 21st-century competencies like critical thinking and collaboration. The increase in confidence was attributed to the workshop's structure, which provided ample time for experimentation through weekly classroom applications and feedback. Teachers developed new skills, such as designing lessons combining visual arts with literacy or social studies, which bolstered their efficacy. The initial lack of confidence, reported by 60% of participants (Mishra & Mehta, 2017), likely stemmed from limited arts integration training in university courses, as 80% had no prior formal training.

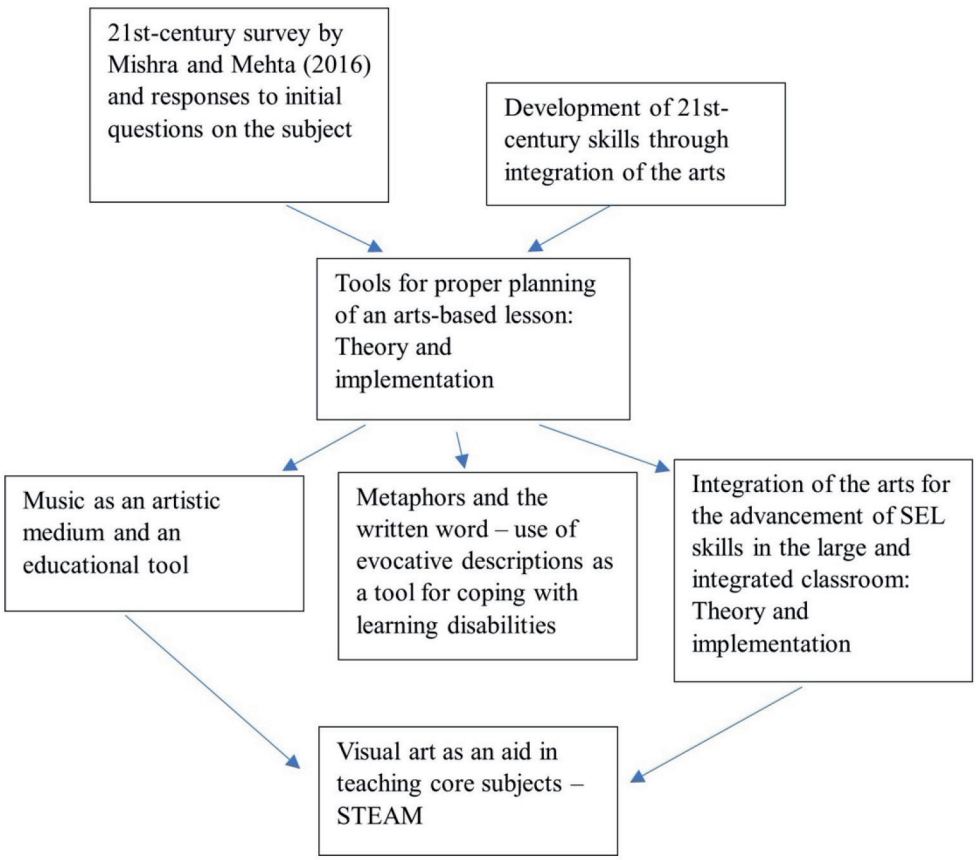


Figure 1. Visual representation of the Art-Based Pedagogy Model (ABPM), diagram courtesy of the author.
Note. SEL = Social–Emotional Learning; STEAM = Science, Technology, Education, Art, and Math.



Figure 2. "I want to integrate the arts into my lessons, but I wonder if I've got 'it'" (Laura, personal communication, March 15, 2022). Colored markers on A4 paper.

Postworkshop, participants implemented specific changes in their classrooms. General education teachers incorporated drawing to teach geometric concepts in mathematics, used storytelling to enhance literacy lessons, and integrated music to explore historical themes in social studies, reporting improved student engagement (Mishra & Mehta, 2017). Due to the limited number of special education (SPED) teachers in the study, specific data on their classroom practices were insufficient. However, the workshop's emphasis on visual arts exploration suggested potential benefits for neurodiverse students, aligning with literature on arts-based interventions (Zarobe & Bungay, 2017). Future research with a larger SPED teacher cohort is needed to explore how arts integration, particularly material exploration, supports diverse learners.

Preliminary Insights and Path Forward

The intervention aimed to build skills incrementally, empowering participants to create their own tools for arts integration. While many participants initially felt unprepared, they were highly motivated to acquire these skills. Full results and future recommendations are discussed in the findings section.

Results

Attitudes Toward Arts Integration

Teachers expressed a strong desire to learn and deepen their understanding of arts integration, even as they initially faced doubts about their abilities. One participant shared, "The integration of the arts into daily life in kindergarten makes me want to deepen my understanding of the subject. Personally, I feel connected to it, but I need to learn more" (Orna, journal response 1). Many teachers were eager to explore new methods, with their enthusiasm growing after each session. However, some participants initially expressed hesitation. As one teacher noted, "I was very nervous—art is something beautiful and powerful, but not something I personally connect to. At least, that's what I thought at first" (Daniel, journal response 1).

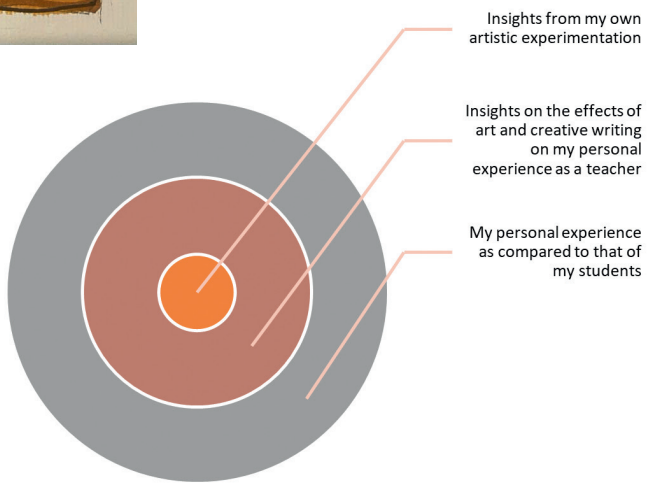


Figure 3. Three primary themes that emerged from the results.

Despite these reservations, curiosity and willingness to explore new approaches prevailed. A significant 69% of respondents felt capable of moving away from traditional teaching methods, although many still struggled with feelings of inadequacy regarding arts integration.

Through exploration, participants examined the emotional responses evoked by art, including memories, curiosity, and concerns about their artistic skills. Their reflections revealed that while many expressed doubts in their initial responses, their enthusiasm for arts integration increased with each session (Figure 2).

Insights on Artistic Experimentation

At the outset, 61% of participants were open to experimenting with arts integration but lacked confidence in their artistic abilities. Their early creative writing responses revealed this skepticism. However, by the end of the course, many participants' attitudes shifted positively. Dorit noted, "I learned that to express an idea or thought, you don't have to be talented in art. Every artwork, in any medium, is accepted and appreciated" (journal response 3). Similarly, Eden remarked, "I was amazed by how a drawing could evoke such powerful emotions and thoughts" (journal response 3).

Reflecting on their artistic responses, many participants recognized the value of these exercises. Anat noted, "Even today, when I look at the images I chose during the writing, they feel just right for the situation and express my own thoughts" (final paper). For others, the process helped overcome long-standing self-doubt. Dalia shared, "After writing a song for the evaluation, I can finally change the narrative that's been in my head for years, telling me I can't develop or use an artistic language" (journal response 6).

Although some resistance persisted at the beginning, by the end, the majority of participants saw the value of arts integration. Valerie summarized, "In hindsight, the art responses are much better at transmitting a feeling than words" (final paper).

The word "process" emerged frequently in participants' reflections, indicating that their understanding of arts integration and personal growth developed gradually throughout the course (Figure 3). Many participants also expressed newfound enjoyment in using physical materials to express their ideas. Fanny said, "I understood how much pleasure there is in using physical materials to express one's ideas" (final paper).

While most participants embraced arts integration, two initially expressed reservations. Flora admitted, "I did it because I had to" (final paper), while Catherine, after initial skepticism, noted, "Art, for me, is the absolute opposite of irritation" (journal response 6), indicating a growing appreciation for arts integration. Nevertheless, the majority were surprised by their ability to engage with art and recognized its potential to expand traditional pedagogical approaches.

Comparing Personal Experience to the Student's Experience

As teachers experimented with arts integration, many compared their own learning experiences to those of their students. Helen reflected, "If artistic experimentation so powerfully amplified my own emotions and talents… what could this kind of experimentation do for students?" (journal response 5).

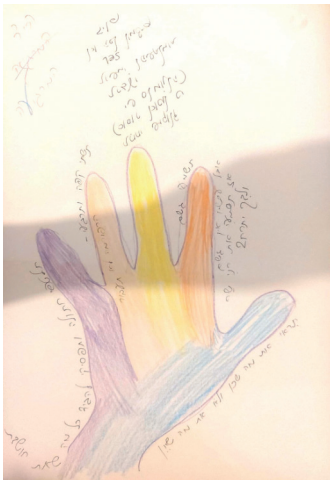
Precourse surveys revealed that 60% of teachers felt unsure about integrating the arts into their teaching (Figure 4). By the end of the course, this number dropped significantly, with 14.91% more teachers feeling confident in their ability to incorporate the arts into their classrooms. Participants noted that arts integration increased their confidence not only in their teaching abilities but also in enriching students' learning experiences. Shirley commented, "I discovered that the subject interests me very much, and I'm sure my students are as thirsty for this style of learning as I am" (journal response 2).

As teachers grew more confident in arts integration, their perceptions of their students' experiences shifted. Tamar noted, "I had no idea that I could teach a lesson that integrated the arts. I discovered that with a little motivation and knowledge, you can do anything" (journal response 5).

Insights on Artistic Response and the Teacher's Personal Development

By the end of the study, most participants had overcome their initial fears about arts integration and gained new ways to express themselves. They noted that the exercises helped them recognize their own artistic potential and connected them more deeply with the creative process. Participants saw their art responses as an opportunity to understand their students' learning experiences better, and the percentage of respondents who felt comfortable integrating the arts into their teaching rose by 15.60%.

Figure 4. "It is an emotionally effective tool, much more than 'traditional' methods. And yet the way we talk about it is not yet sufficiently conceptualized" (Drora, personal communication, April 3, 2022). Colored pencils on A4 paper.



The data from journals, recordings, and final papers suggest that art-based pedagogy can indeed foster the skills needed in a rapidly changing educational landscape.

Discussion

This study aimed to explore how art integration in professional development can enrich teachers' pedagogical practices, enhance 21st-century skills, and improve educational outcomes. Over the course of 30 hours, participants engaged in art integration, experimenting with artistic tools and reflecting on their experiences through various forms of artmaking.

Inflexibility Versus Change: Resistance to the Process

The data, gathered from recorded sessions, journals, and final papers, revealed both engagement and initial skepticism. Many participants doubted the value of arts integration, questioning whether art could be a useful tool in their classrooms. Their initial resistance stemmed from a lack of confidence in their own artistic abilities.

Despite this, the course's structure, consisting of seven 4-hour sessions, provided opportunities for participants to process their experiences. The workshop's design allowed ample time for experimentation, as participants implemented arts-integrated strategies in their classrooms weekly and received feedback during sessions, fostering the development of new skills, such as designing

lessons that combined visual arts with literacy or social studies. This contributed to a significant increase in confidence, with 14.91% of teachers reporting greater efficacy in arts integration and 15.60% expressing comfort with the approach (Mishra & Mehta, 2017). The initial lack of confidence, reported by 60% of participants, likely resulted from limited arts integration training in their university courses, as 80% had no prior formal training in this area (Mishra & Mehta, 2017). Over time, the majority of participants grew more confident in integrating art into their teaching, reflecting a gradual shift toward creative and innovative learning, as suggested by Moylan (2008). This aligns with existing literature that highlights the gradual nature of change when adopting new pedagogical strategies.

For example, Catherine was initially skeptical of arts integration, doubting its classroom relevance due to her limited artistic confidence. However, after engaging in the workshop's weekly classroom applications and feedback sessions, she expressed a transformed perspective, stating, "Art, for me, is the absolute opposite of irritation" (journal response 6). This shift mirrored the broader confidence growth observed, with 14.91% of teachers reporting greater efficacy in arts integration (Mishra & Mehta, 2017), reflecting the gradual pedagogical change noted by Moylan (2008).

The Teachers as a Dynamic Group: A Laboratory for Relationships and Experimentation

A key source of resistance was the mismatch between participants' expectations and the course content. Many hoped for ready-made lesson plans, but the course followed Kolb's (2015) experiential learning model, encouraging participants to create their own lessons and adapt them to their teaching needs. This shift toward self-directed learning fostered collaboration among participants, who learned from each other as much as from the instructor.

By the final session, participants had developed into a cohesive learning community, exchanging insights and experiences. Their journals reflected how arts integration addressed personal challenges and transformed their understanding of their roles as educators. These findings echo the work of Gatt and Karppinen (2014), emphasizing the benefits of arts integration in teacher training.

Art as a Mediator of Expression

Art played a pivotal role in this study, acting as a mediator for expression and reflection. Initially uncertain about using art as a reflective tool, many participants grew more comfortable with the process as the course progressed. They began to see the value of art not only for self-expression, but also for enhancing their teaching practices.

Eisner (2002) asserted that the process of artmaking is often more valuable than the end result. This idea was reflected in the participants' experiences, as they discovered that their art responses had emotional depth, even when they were not "skilled" artists. One participant shared, "I learned that every artwork carries meaning. You don't have to be talented in art to benefit from the process" (final paper). This shift highlights the potential of art to foster new modes of learning and teaching.

Impact of Art Integration on SPED Teachers

Teachers working with SPED students were particularly skeptical at first. They sought concrete lesson plans tailored to their students' needs, yet the course's emphasis on experiential learning and flexibility led to a change in their perspectives. Over time, these SPED teachers recognized the value of art-based strategies, noting that art could be adapted to individual and small-group settings to promote engagement and self-expression.

Although this study did not directly assess the impact of art integration on student outcomes, teachers reported increased confidence in using art to support students' emotional and cognitive engagement. Future research should explore how arts integration in SPED settings influences student engagement, emotional regulation, and academic achievement, offering deeper insights into its effectiveness in SPED contexts.

Teacher of Teachers

As the course moderator, I adopted a flexible, responsive approach, adapting the course design to meet participants' evolving needs. This adaptability was key to fostering critical thinking, creativity, and acceptance of diverse perspectives. The flexibility to deviate from the original plan enabled participants to explore new ways of representing and making meaning, as highlighted by Burnaford et al. (2001). This approach facilitated the participants' growth and development, illustrating the importance of flexibility in teacher professional development.

Conclusion and Future Research

This study sought to determine whether art integration could support 21st-century skills such as critical thinking, creativity, and adaptability. The data from journals, recordings, and final papers suggest that art-based pedagogy can indeed foster the skills needed in a rapidly changing educational landscape. The process-oriented structure of the course, combining experiential learning with theoretical frameworks, played a crucial role in participants' development.

However, further research is needed to explore how art-based pedagogy can be applied within specific educational domains. Each session in the workshop focused on various aspects of teaching, such as the learning environment, teaching skills, social–emotional development, and pedagogical approaches. Future studies should examine how arts integration enhances education within these specific areas to understand better its impact and potential. ■

Dina Fried, The MOFET Institute in Tel Aviv, Israel. The author is currently affiliated with Herzog Academic College, French Hill Campus in Israel. Email: dinaf@herzog.ac.il

REFERENCES

Allahverdiyev, M., Yucesoy, Y., & Baglama, B. (2017). An overview of arts education and reflections on special education. *International Journal of Educational Sciences*, *19*(2–3), 127–135. https://doi.org/10.31901/24566322.2017/19.2-3.06

Bargal, D. (2006). Personal and intellectual influences leading to Lewin's paradigm of action research: Towards the 60th anniversary of Lewin's action research and minority problems (1946). *Action Research, 4*(4), 367–388. https://doi.org/10.1177/1476750306070104

Bargal, D. (2012). Kurt Lewin's vision of organizational and social change: The interdependence of theory, research and action/practice. In D. M. Boje, B. Burnes, & J. Hassard (Eds.), *The Routledge companion to organizational change* (pp. 31–45). Routledge.

Burnaford, G., Aprill, A., Weiss, C., & Chicago Arts Partnerships in Education. (2001). *Renaissance in the classroom: Arts integration and meaningful learning*. Erlbaum.

Craft, A. (2003). The limits to creativity in education: Dilemmas for the educator. *British Journal of Educational Studies*, *51*(2), 113–127. https://doi.org/10.1111/1467-8527.t01-1-00229

Crockett, J. B., Berry, K. A., & Anderson, A. (2015). Where are we now? The research on arts integration and special education. In A. Anderson (Ed.), *Arts integration and special education: An inclusive theory of action for student engagement* (pp. 157–188). Routledge.

Crockett, J. B., & Malley, S. M. (2017). Trends and issues influencing arts education for students with disabilities. In J. B. Crockett & S. M. Malley (Eds.), *Handbook of arts education and special education* (pp. 342–358). Routledge.

Dewey, J. (1938). *Experience and education*. Macmillan.

Eisner, E. W. (2002). *The arts and the creation of mind*. Yale University Press.

Ewing, R. (2010). The arts and Australian education: Realising potential (*Australian Education Review* No. 58). Australian Council for Educational Research.

Gatt, I., & Karppinen, S. (2014). An enquiry into primary student teachers' confidence, feelings and attitudes towards teaching arts and crafts in Finland and Malta during initial teacher training. *International Journal of Art & Design Education*, *33*(1), 75–87. https://doi.org/10.1111/j.1476-8070.2014.12002.x

Gibson, R. (2003). Learning to be an art educator: Student teachers' attitudes to art and art education. *International Journal of Art & Design Education*, *22*(1), 111–120. https://doi.org/10.1111/1468-5949.00344

Großschedl, J., Harms, U., Kleickmann, T., & Glowinski, I. (2015). Preservice biology teachers' professional knowledge: Structure and learning opportunities. *Journal of Science Teacher Education*, *26*(3), 291–318. https://doi.org/10.1007/s10972-015-9423-6

Häkkinen, P., Järvelä, S., Mäkitalo-Siegl, K., Ahonen, A., Näykki, P., & Valtonen, T. (2017). Preparing teacher-students for twenty-first-century learning practices (PREP 21): A framework for enhancing collaborative problem-solving and strategic learning skills. *Teachers and Teaching*, *23*(1), 25–41. https://doi.org/10.1080/13540602.2016.1203772

Inoa, R., Weltsek, G., & Tabone, C. (2014). A study on the relationship between theater arts and student literacy and mathematics achievement. *Journal for Learning Through the Arts*, *10*(1). https://doi.org/10.21977/d910123495

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.

Kolb, D. A. (2015). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Pearson Education.

Macionis, J. J. (1989). *Sociology* (2nd ed.). Prentice Hall.

Manfra, M. M. (2019). Action research and systematic, intentional change in teaching practice. *Review of Research in Education*, *43*(1), 163–196. https://doi.org/10.3102/0091732X18821132

Marshall, J. (2010). Thinking outside and on the box: Creativity and inquiry in art practice. *Art Education*, *63*(2), 16–23. https://doi.org/10.1080/00043125.2010.11519057

Marshall, J. (2014). Transdisciplinarity and art integration: Toward a new understanding of art-based learning across the curriculum. *Studies in Art Education*, *55*(2), 104–127. https://doi.org/10.1080/00393541.2014.11518922

Mishra, P., & Mehta, R. (2017). What we educators get wrong about 21st-century learning: Results of a survey. *Journal of Digital Learning in Teacher Education*, *33*(1), 6–19. https://doi.org/10.1080/21532974.2016.1242392

Moylan, W. A. (2008). Learning by project: Developing essential 21st century skills using student team projects. *International Journal of Learning*, *15*(9), 287–292. https://doi.org/10.18848/1447-9494/CGP/v15i09/45935

Niemi, R. (2019). Five approaches to pedagogical action research. *Educational Action Research*, *27*(5), 651–666. https://doi.org/10.1080/09650792.2018.1528876

Sandeen, C. A., & Hutchinson, S. (2010). Putting creativity and innovation to work: Continuing higher education's role in shifting the educational paradigm. *Continuing Higher Education Review*, *74*, 81–92.

Shkurkin, D., Novikov, V., Kobersy, I., Kobersy, I., & Borisova, A. (2015). Investigation of the scope of intellectual services in the aspect of virtualization and information economy of modern Russia. *Mediterranean Journal of Social Sciences*, *6*(5 S3), 217–224. http://dx.doi.org/10.5901/mjss.2015.v6n5s3p217

Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, *15*(2), 4–14. https://doi.org/10.3102/0013189X015002004

Sterling, S. (2001). *Sustainable education: Re-visioning learning and change*. Green Books.

Teo, T., Zhou, M., Fan, A. C. W., & Huang, F. (2019). Factors that influence university students' intention to use Moodle: A study in Macau. *Educational Technology Research and Development, 67*(3), 749–766. https://doi.org/10.1007/s11423-019-09650-x

Ulbricht, J. (2005). What is community-based art education? *Art Education*, *58*(2), 6–12. https://doi.org/10.1080/00043125.2005.11651529

Ushatikova, I. I., Klyuchnikov, D. A., Saenko, N. R., Levitskaya, I. A., Pristupa, E. N., & Lebedeva, N. V. (2016). Psychological and economical aspects of the competency approach in the paradigm of higher education. *International Review of Management and Marketing*, *6*(1S), 218–223.

Zarobe, L., & Bungay, H. (2017). The role of arts activities in developing resilience and mental wellbeing in children and young people: A rapid review of the literature. *Perspectives in Public Health, 137*(6), 337–347. https://doi.org/10.1177/1757913917712283